Letter of Notification for the South Canton 765kV Transmission Station Expansion Project



Case No. 20-1026-EL-BLN

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

Submitted by: Ohio Power Company

May 26, 2020

Letter of Notification

Ohio Power Company's South Canton 765kV Transmission Station Expansion Project

4906-6-05

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

4906-6-05(B) General Information

B(1) Project Description

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

The Company proposes the South Canton 765kV Transmission Station Expansion ("Project"), located in Canton, Stark County, Ohio. The purpose of this Project is to expand the South Canton Station by more than 20 percent to add equipment and infrastructure necessary to satisfy the Company's current resiliency, operational performance, safety, and reliability standards. The Project will be constructed on existing Ohio Power Company property. Appendix A shows the location of the Project.

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

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

The Project has been assigned PUCO Case No. 20-1026-EL-BLN

B(2) Statement of Need

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

Ohio Adm.Code 4906-6-05(B)(2) applies only to electric power, gas, and natural gas transmission lines and is not applicable to this station expansion project. Nonetheless, this Project is necessary to enable the Company to add equipment and infrastructure that will bring the South Canton 765kV Station up to current resiliency, safety, operational performance, and reliability standards.

Because this Project results in no operational, modeling, or topology change, the Project will not be included in the PJM Regional Transmission Expansion Plan. This Project is also not included in Form FE-T10 of AEP Ohio's or AEP Ohio Transco's 2019 Long-Term Forecast Reports because South Canton 765kV Station is an existing substation. South Canton 765kV Station was included as an existing substation in AEP Ohio's 2020 Form FE-T8, on page 82 of 119.

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B(3) Project Location

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

This Project is located in Canton, Stark County, Ohio. Appendix A shows the location of the Project in relation to existing assets.

B(4) Alternatives Considered

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

Based on the scope of the Project, the expansion to the existing station fence, and the location of the Project on existing AEP Ohio property, the Project represents the most suitable and least-impactful alternative. Therefore, there were no other alternatives considered for this Project. Socioeconomic, land use, and ecological information is presented in Section B(10).

B(5) Public Information Program

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

The Company informs affected property owners and tenants about its projects through several different mediums. Within seven days of filing this LON, the Company will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements under O.A.C. Section 4906-6-08(A)(1-6). Further, the Company mailed a letter, via first class mail, to affected landowners, tenants, contiguous owners, and any other landowner the Company approached for an easement necessary for the construction, operation, or maintenance of the facility. The letter complies with all the requirements of O.A.C. Section 4906-6-08(B). The Company also maintains a website (http://aeptransmission.com/ohio/) which provides the public access to an electronic copy of this LON and the public notice for this LON. An electronic copy of the LON will be served to the public library in each political subdivision affected by this proposed Project. Lastly, the Company 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.

The Company anticipates that construction of the Project will begin in the third quarter of 2020. The anticipated in-service date for the Project is June 2022.

B(7) Area Map

Ohio Power Company

South Canton 765kV Transmission Station Expansion Project

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The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.

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

From Columbus, get on I-670 East from South 4th Street (1.2 miles). Then follow I-71 North and US-30 E to OH-627 E/Richville Dr SW in Perry Township. Then Take the OH-627/Richville Dr exit from US-30 E (120 miles). Continue on Richville Dr SW and then take 252/Fohl St SW to Keiffer Ave SW in Pike Township (5.9 miles). The destination should be on the right.

B(8) Property Agreements

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

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

B(9) Technical Features

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

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

South Canton 765kV's station operating characteristics will not change as a result of this Project. There will be no transmission line shifts as a part of this overall project.

B(9)(b) Electric and Magnetic Fields

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

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

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately \$5,525,838

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B(10) Social and Economic Impacts

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

B(10)(a) Land Use Characteristics

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

The Project is located entirely within the Company's property in Canton, Stark County, Ohio. The Stark County Auditor lists the land use of this area as "800- Agricultural Land/Improvements". Approximately 0.2 acres of tree clearing is anticipated to be required for the Project. No environmental or cultural resources are expected to be impacted as a result of this Project.

B(10)(b) Agricultural Land Information

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

The Project area is entirely within Ohio Power Company property, with surrounding industrial/commercial and residential facilities, and is noted within the Stark County Auditor's website as agricultural use.

B(10)(c) Archaeological and Cultural Resources

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

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

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

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

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

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

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

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

B(10)(f) Areas of Ecological Concern

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

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

B(10)(g) Unusual Conditions

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

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

APPENDIX A

Figure 1

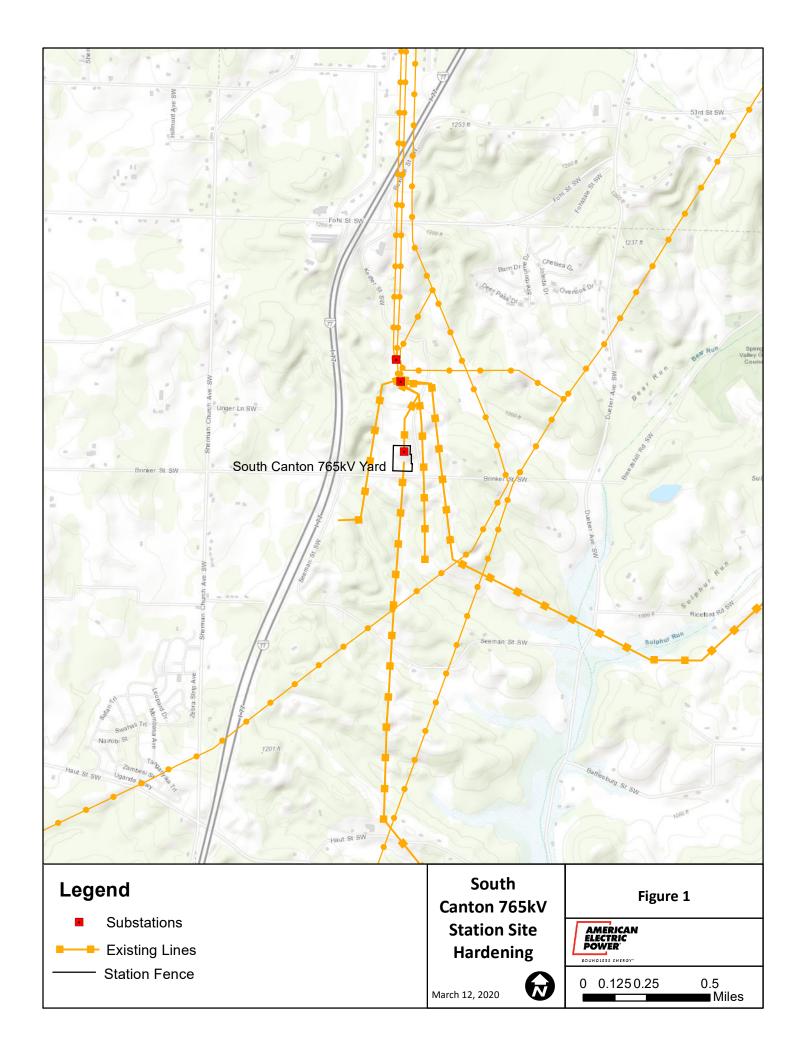
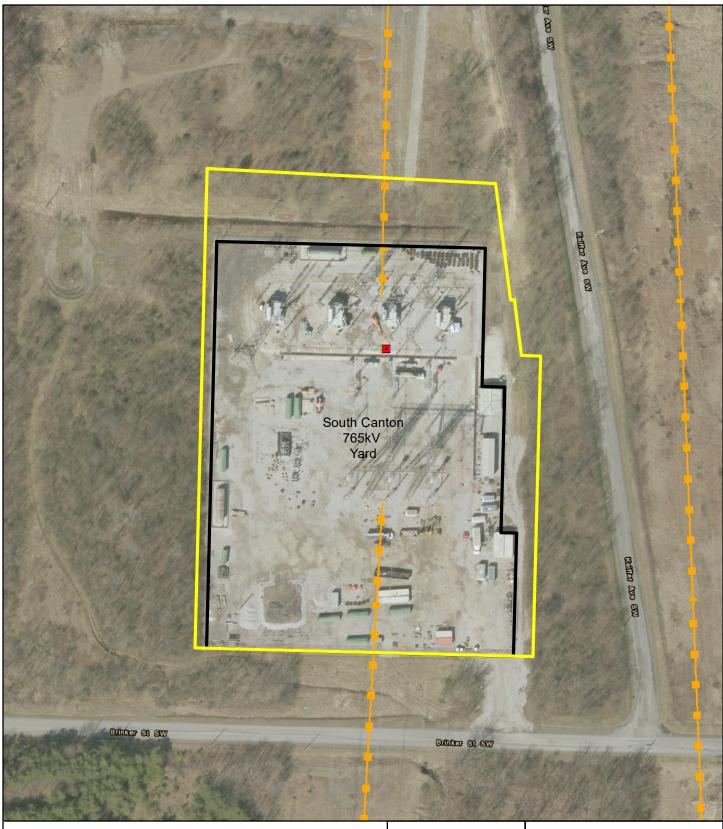


Figure 2



Legend

Substations

Existing Lines

Existing Fence Line

Areas Where Existing Fence is Moving Out

South
Canton 765kV
Station
Site Hardening

0

Figure 2



0 37.5 75

150 Feet

April 22, 2020

Appendix B Wetland Delineation and Stream Assessment Report





Ecological Survey Report

AEP Ohio Transmission Company South Canton 765kV Station Security Project Stark County, Ohio

GAI Project Number: C170352.24, Task 001

January 2019



Ecological Survey Report

AEP Ohio Transmission Company South Canton 765kV Station Security Project Stark County, Ohio

GAI Project Number: C170352.24, Task 001

January 2019

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1.0 Introduction

GAI Consultants, Inc. (GAI), on behalf of American Electric Power Ohio Transmission Company (AEP), completed an ecological survey for the South Canton 765kV Station Security Project (Project) located in Stark County, Ohio (OH). The Project involves the installation of a new security fence surrounding the South Canton 765kV Station.

Ecological surveys were conducted on September 7-8 and 11-13, 2017. The study area consisted of an approximately 185 acre parcel surrounding the Project area, as shown on Figure 1.

The Project study area is located within the Beal Run-Sandy Creek (United States Geological Survey [USGS] Hydrologic Unit Code [HUC] #050400010607) and Wolf Creek – Tuscarawas River (USGS HUC #040400011203) watersheds.

This report details the results of the ecological surveys regarding the existence of aquatic resources within the Project area (Figure 2). The United States Army Corps of Engineers (USACE) Wetland Determination Data Forms are provided in Appendix B. Ohio Environmental Protection Agency (OEPA) Primary Headwater Habitat Evaluation (HHEI) Data Forms are provided in Appendix C and Ohio Rapid Assessment Method for Wetlands (ORAM) Data Forms are provided in Appendix D.

2.0 Methods

2.1 Wetlands

The 1987 USACE *Corps of Engineers Wetlands Delineation Manual* (Wetlands Delineation Manual) (USACE, 1987) and the 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, Version 2.0* (Regional Supplement) (USACE, 2012) describe the methods used to identify and delineate wetlands that fall under the jurisdiction of the USACE. This approach recognizes the three (3) parameters of wetland hydrology, hydrophytic vegetation, and hydric soils to identify and delineate wetland boundaries. In accordance with the Wetlands Delineation Manual and Regional Supplement, GAI completed preliminary data gathering and on-site inspections.

2.1.1 Preliminary Data Gathering

The preliminary data gathering is used to compile and review information that may be helpful in identifying wetlands and/or areas that warrant further inspection during the investigation. The preliminary data gathering includes a review of the following:

- ▶ USGS 7.5-minute topographic mapping for Bolivar (USGS, 1978), OH (Figure 1);
- United States Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) mapping (USFWS, 2015) (Figure 2);
- ► Federal Emergency Management Agency (FEMA), National Flood Hazard Layer (FEMA, 2015) (Figure 2); and
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS, 2015) soil mapping (Figure 2).

Topographic mapping is used to identify mapped streams and the overall shape of the landscape in the Project area to determine potential locations for wetlands, such as floodplains and depressions. NWI mapping is used to determine locations where probable wetlands are located based on infrared photography. Soil mapping is reviewed to determine the location and extent of mapped hydric soils that have a high probability of containing wetlands.



2.1.2 Onsite Inspection

The methodology described in the Regional Supplement identifies areas meeting the definition of a wetland by evaluating three parameters: hydrology, vegetation, and soil. During the onsite inspection, GAI staff traversed the Project study area on foot to determine if any indicators of wetlands were present. When indicators of wetlands were observed, an observation point was established, and a Wetland Determination Data Form (Data Form) was completed to determine if all three wetland indicators were present.

The presence of wetland hydrology is determined by examining the observation point for primary and secondary indicators of wetland hydrology. The presence of any primary indicator signifies the presence of wetland hydrology, or the presence of two (2) or more secondary indicators signifies the presence of wetland hydrology.

Vegetation is characterized by four (4) different strata. This included trees (woody plants, excluding vines, three inches or more [\geq 3.0"] in diameter at breast height [DBH]), saplings/shrubs (woody plants, excluding vines, less than three inches [<3.0"] DBH and greater than or equal to [\geq] 3.28 feet tall), herbs (non-woody plants, regardless of size, and all other plants less than [<] 3.28 feet tall), and woody vines (greater than [>] 3.28 feet tall). In general, trees and woody vines are sampled within a thirty-foot (30.0') radius, saplings and shrubs are sampled within a fifteen-foot (15.0') radius, and herbs are sampled within a five-foot (5.0') radius.

When evaluating an area for the presence of hydrophytes, classification of the indicator status of vegetation is based on *The National Wetland Plant List: 2016 Update of Wetland Ratings* (Lichvar et al., 2016). The list of possible indicator statuses for plants is as follows:

- Obligate Wetland (OBL) Obligate Wetland plants occur in standing water or in saturated soils;
- Facultative Wetland (FACW) Facultative Wetland plants nearly always occur in areas of prolonged flooding or require standing water or saturated soils but may on rare occasions, occur in non-wetlands;
- Facultative (FAC) Facultative plants occur in a variety of habitats, including wetland and mesic to xeric non-wetland habitats but often occur in standing water or saturated soils;
- Facultative Upland (FACU) Facultative Upland plants typically occur in xeric or mesic non-wetland habitats but may frequently occur in standing water or saturated soils; and,
- Obligate Upland (UPL) Obligate Upland plants almost never occur in water or saturated soils.

Presence of hydrophytic vegetation is determined by using a Rapid Test, Dominance Test or Prevalence Index. The Rapid Test finds a vegetation community to be hydrophytic if all dominant species are OBL or FACW. Hydrophytic vegetation is considered present based on the Dominance Test if more than fifty percent (50%) of dominant species are OBL, FACW, or FAC. The Prevalence Index weighs the total percent of vegetation cover based on the indicator status of each plant. Hydrophytic vegetation is considered present when the Prevalence Index is less than or equal to 3.0 (USACE, 2012).

To determine the presence of hydric soils, soil data was collected by digging a minimum sixteen-inch-deep (16.0") soil pit. The soil profile is studied and described, while possible hydric indicators are examined. Soil indicators described in the Wetlands Delineation Manual and Regional Supplement are used to determine the presence of hydric soils. The presence of any of these indicators signifies a hydric soil.



If all three parameters including wetland hydrology, a dominance of hydrophytic vegetation, and hydric soils are identified at a single observation point, the area is determined to be a wetland. Once a wetland is identified, the boundary is delineated.

Wetland boundaries are determined by looking for locations in which one of the three wetland indicators would transition into an upland characteristic. When the transition is identified, a Data Form is completed in the Upland Area. Wetland boundaries are then marked in the field using pink flagging labeled "WETLAND DELINEATION." The locations of the flags are recorded using a Global Positioning System (GPS) unit. Each wetland is codified with a unique identifier indicating the feature type and number (e.g., W001).

Wetlands are then classified using the *Classification of Wetlands and Deepwater Habitats of the United States* as modified for NWI Mapping Convention. This system classifies wetlands based on topographic position and vegetation type. Palustrine system wetlands found within the study area are classified as Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS), Palustrine Forested (PFO), or Palustrine Unconsolidated Bottom (PUB) based on aerial coverage of the vegetative community across the extent of the wetland boundary (Cowardin et al., 1979).

2.2 Waterbodies

As with wetlands, Section 404 and 401 of the Clean Water Act (CWA) and state regulations protect waterbodies in OH. Generally, waterbodies are defined as environmental features that have defined beds and banks, ordinary high water mark (OHWM), and contain flowing or standing water for at least a portion of the year.

2.2.1 Preliminary Data Gathering

During the preliminary data gathering, the USGS 7.5-minute topographic mapping is examined for the presence of mapped waterbodies including perennial and intermittent streams. In addition, the topographic mapping is used to identify areas likely to contain unmapped waterbodies including ephemeral streams (USGS, 1978) (Figure 1).

The OEPA 401 Water Quality Certification for Nationwide Permits Stream Eligibility Web Map (OEPA, 2017) is used to determine eligibility coverage under the 401 Water Quality Certification (WQC) for the 2017 Nationwide Permits (NWPs). Furthermore, the map is used to identify any ineligible areas that may require a CWA Section 401 individual permit from the OEPA should stream impacts occur within the Project area (OEPA, 2017) (Figure 3).

2.2.2 Onsite Inspection

During the onsite inspection, GAI staff traversed the study area, concurrently with the wetland inspection, and waterbodies were identified. Waterbodies were identified based on the morphological and hydrologic characteristics of the channel and the presence of aquatic macroinvertebrates.

When a waterbody is identified, field measurements are collected. The measurements included top of bank width, top of bank depth, pool depth, water depth, OHWM width, and OHWM depth. A detailed description of substrate composition is also recorded. Waterbodies are then delineated using white flagging marked with the GAI stream code (e.g., S001). The tops-of-bank for streams wider than 10 feet (<10.0') are delineated and the centerline of smaller streams are delineated. The locations of the flags are recorded using a sub-meter capable hand-held GPS unit.



2.3 Rare, Threatened, and Endangered Species

GAI conducted a literature review of potential Rare, Threatened, and Endangered (RTE) species in the vicinity of the Project study area. Potential habitat for RTE species as a result of the literature review was noted during the ecological survey.

2.3.1 Preliminary Data Gathering

A request for review of the Ohio Natural Heritage Database (ONHD) is submitted to the Ohio Department of Natural Resources (ODNR) to determine if any state-listed threatened or endangered species occur within a one-mile radius of the Project area. A request is also submitted to the USFWS Ohio Ecological Services Field Office to determine if any federally-listed threatened or endangered species occur within the vicinity of the Project area.

2.3.2 Onsite Inspection

During the onsite inspection, GAI staff traversed the study area in conjunction with the wetland and waterbody inspections to determine if suitable habitat for state- and/or federally-listed RTE species are present within the study area.

3.0 Results

3.1 Wetlands

3.1.1 Preliminary Data Gathering

Desktop review of available USFWS NWI digital data for the Project revealed six (6) NWI mapped wetlands located within the Project study area. Two (2) NWI wetlands are classified as Palustrine Emergent, Persistent, Seasonally Flooded (PEM1C), one of which corresponds with W006. One (1) NWI wetland is classified as Palustrine, Unconsolidated Bottom, Intermittently Exposed (PUBG) and corresponds to W001. The remaining three (3) NWI wetlands are classified as Palustrine Unconsolidated Bottom, Intermittently Exposed, Excavated (PUBGx) and correspond with W002, W015, and W022 (USFWS, 2017).

According to the USDA-NRCS soil mapping, a total of fourteen (14) soil map units are located within the Project study area (Figure 2). One (1) of the soil map units is classified as hydric (Sebring silt loam [Sb]). None of the remaining soil map units are known to contain hydric inclusions.

3.1.2 Onsite Inspection

Twenty-two (22) wetlands were identified and delineated within the Project study area, including eleven (11) PEM wetlands, one (1) PSS wetland, three (3) PFO wetlands, three (3) PUB wetlands, one (1) PEM/PSS wetland, two (2) PEM/PUB wetlands, and one (1) PFO/PUB wetland.

In order to document site conditions, USACE Data Forms were completed for each wetland and upland reference. Information on the delineated wetlands can be found in Table 1 and photographs of the wetlands are included in Appendix A.

3.1.3 Regulatory Discussion

The USACE guidance divides waterbodies into three groups: Traditionally Navigable Waters (TNWs), non-navigable Relatively Permanent Waters (RPWs), and non-navigable Non-RPWs. TNWs are waterbodies which have been, are, or may be susceptible to use in interstate commerce, including recreational use of the waterbody. RPWs are waterbodies that flow year round, or at a minimum seasonally, by exhibiting continuous flow for at least three consecutive



months, but are not TNWs (USACE, 2007). Non-RPWs are waterbodies that do not flow continuously for at least three (3) consecutive months, are not TNWs or RPWs, but typically exhibit characteristic beds, banks, and OHWM (USACE, 2007).

The status of wetlands is determined partly based on the classification of the waterbody that the wetland is associated with, and the degree of that association. Wetlands that abut or are adjacent to TNWs are jurisdictional. Wetlands that abut RPWs are jurisdictional. Wetlands that are adjacent to RPWs and wetlands that abut or are adjacent to Non-RPWs must be subjected to the Significant Nexus Test (SNT) to determine their jurisdictional status. Generally, the USACE considers wetlands that are isolated, meaning that they are not associated with any other surface water feature, as non-jurisdictional; and wetlands that abut or are adjacent to Non-RPWs as needing further examination by the USACE to determine and verify whether they exhibit a significant nexus to waters of the United States. If these wetlands exhibit a significant nexus, they are jurisdictional; if not, they are not subject to USACE jurisdiction (USACE, 2007).

Wetlands that do not exhibit an association with any surface water are categorized as "isolated" under present USACE guidance and policy (USACE, 2007). These wetlands are regulated by the OEPA Division of Surface Water, and may require an Isolated Wetland Permit.

As regulated by Ohio Administrative Code (OAC) rules 3745-1-50 through 3745-1-54, wetlands were also evaluated using the ORAM to determine the appropriate wetland category. Any wetland score that fell within a gray zone between categories was scored one of two ways. Either the wetland was assigned to the higher of the two categories or it was assessed using a non-rapid method to determine its quality (Mack, 2001). The category assigned to a particular wetland determines the requirement, if any, for additional levels of protection administered by the OEPA.

All wetlands within the study area were identified as jurisdictional. The jurisdictional status provided in Table 1 is the opinion of GAI and must be confirmed by USACE and state agencies through the Jurisdictional Determination (JD) process.

3.2 Waterbodies

3.2.1 Preliminary Data Gathering

Desktop review of the available USGS topographic mapping revealed two previously mapped stream segments located within the Project study area (Figure 1). Desktop review of OEPA's Stream Eligibility Web Map revealed the Project is located within a watershed categorized as "eligible" for automatic 401 WQC coverage (Figure 3).

3.2.2 Onsite Inspection

Fourteen (14) stream segments were identified and delineated within the Project study area. One (1) stream segment was classified as having a perennial flow regime, eleven (11) were classified as intermittent, and two (2) were classified as ephemeral. Information on the delineated waterbodies and their classifications can be found in Table 2, and photographs of the identified streams are included in Appendix A.



3.2.3 Regulatory Discussion

As with wetlands, present USACE guidance and policy determines the jurisdictional status of waterbodies identified during the Project. TNWs and RPWs are jurisdictional. Non-RPWs must be subjected to the SNT by USACE to determine their jurisdictional status. If Non-RPWs exhibit a Significant Nexus, as defined in USACE guidance documents, they are jurisdictional. If not, they do not fall under the jurisdiction of the USACE (USACE, 2007).

Streams are generally defined as environmental features that have defined beds and banks, an OHWM and contain flowing or standing waters for at least a portion of the year (USACE, 2005). Streams were classified as perennial, intermittent, or ephemeral based upon presence of flow, estimated duration of flow, stream bed characteristics, and presence of aquatic biota. The USACE *Jurisdictional Determination Form Instructional Guidebook* (USACE, 2007) was used to determine stream classification and flow status.

As regulated by OAC Chapter 3745-1-24, streams were also assessed according to OEPA guidance using either the HHEI for watersheds less than one square mile ($<1.0~\text{mi}^2$) in size, or the Qualitative Habitat Evaluation Index (QHEI) for watersheds between one and twenty square miles ($1.0-20.02~\text{mi}^2$) in size.

A review of the OEPA Stream Eligibility Web Map confirms that all streams located within the project area are within an eligible area for automatic 401 WQC coverage.

3.3 Rare, Threatened, and Endangered Species

3.3.1 Preliminary Data Gathering

Desktop review of ODNR, Division of Wildlife's Ohio's Listed Species revealed 336 Endangered, Threatened, Species of Concern, and Species of Interest located in OH (ODNR, 2017). Seventeen (17) of the state-listed species are considered federally Endangered, and four (4) are federally threatened.

A review of the USFWS *County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species for Ohio* as well as the USFWS Information for Planning and Consultation (IPaC) website revealed two (2) federally endangered or threatened species that may occur within the Project study area (USFWS, 2017). The list of species includes the following:

- ▶ Indiana bat (*Myotis sodalis*) Endangered; and
- Northern long-eared bat (Myotis septentrionalis) Threatened;

In addition to the species listed above, there are two (2) species of migratory birds that may occur within the Project study area.

3.3.2 Onsite Inspection

Potential habitat for RTE species was evaluated within the Project study area. In general, the habitat encountered within the study area consisted of mid-successional forest with several intersecting cleared power line rights-of-way. The majority of the project area is former strip mine, portions of which have not been reclaimed. One (1) perennial, eleven (11) intermittent, and two (2) ephemeral streams were also identified within the Project study area. Representative photographs of the identified habitat types are included in Appendix A.



3.3.3 Regulatory Discussion

State-listed RTE species fall under the jurisdiction of the ODNR, Division of Wildlife, while federally-listed species are covered under Section 7 of the Endangered Species Act. The Bald and Golden Eagle Protection Act and Migratory Bird Act aim to extend protection to certain bird species that fall under the jurisdiction of the USFWS. Based on the desktop review and on-site inspection, informal consultation with the ODNR and USFWS has been initiated to determine if any activities associated with the proposed Project may affect state- and/or federally-listed RTE species. The ODNR and USFWS consultation letters were submitted on September 7, 2017, and are provided in Appendix E. A response from the USFWS was received on September 22, 2017, and is also provided in Appendix E. The ODNR response was received on December 20, 2017 and is also included in Appendix E.

4.0 Conclusions

Ecological surveys were conducted within the Project study area on September 7-8 and 11-13, 2017. Eleven (11) PEM wetlands, one (1) PSS wetland, three (3) PFO wetlands, three (3) PUB wetlands, one (1) PEM/PSS wetland, two (2) PEM/PUB wetlands, and one (1) PFO/PUB wetland were identified within the Project study area. Fourteen (14) stream segments (one perennial, eleven intermittent, and two ephemeral) were also identified within the Project study area. Summaries of the delineated aquatic features are provided in Tables 1 and 2, and a map of their locations is depicted on Figure 2. Photographs of the wetland and stream features are included in Appendix A. Wetland Determination Data Forms documenting the investigation are provided in Appendix B, with HHEI and ORAM Data Forms provided in Appendix C and D, respectively.

The jurisdictional status of these features is considered preliminary and should be confirmed with the USACE and state agencies through the formal JD process.



5.0 References

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TABLES



Table 1
Wetlands Identified Within the Project Study Area

Wetland I.D. ¹	Latitude ²	Longitude ²	Proximal Waterbody	USACE Classification ³	Cowardin Classification ⁴	Size⁵ (acres)	ORAM v. 5.0 Score ⁶	ORAM Category ⁷	Figure 2 (sheet)
W001-PUB-CATMOD2	40.715465	-81.413442	UNT to Bear Run	Juriedictional Adiacont	PUB	0.665	41	M EG 12	1
W001-PEM-CATMOD2	40.716043	-81.413293	ONT to bear Ruit	Jurisdictional; Adjacent	PEM	0.028	41	Modified 2	1
W002-PUB-CATMOD2	40.713608	-81.414748	LINT to Door Door	Touris distinguis Address t	PUB	0.484	42	M - 4:6: - 4 2	1.0
W002-PFO-CATMOD2	40.713885	-81.415219	UNT to Bear Run	Jurisdictional; Adjacent	PFO	0.024	43	Modified 2	1, 2
W003-PEM-CAT2	40.714059	-81.419265	UNT to Bear Run	Jurisdictional; Abutting	PEM	0.694	34	2	1, 2
W004-PUB-CATMOD2	40.713242	-81.420559	UNT to Bear Run	Jurisdictional; Abutting	PUB	0.148	41	Modified 2	2
W005-PEM-CATMOD2	40.714229	-81.420126	UNT to Bear Run	Jurisdictional; Abutting	PEM	0.072	37	Modified 2	1
W006-PEM-CAT2	40.710323	-81.415938	UNT to Bear Run	Jurisdictional; Abutting	PEM	3.231	34	2	2, 3
W007-PEM-CAT2	40.712992	-81.415815	UNT to Bear Run	Jurisdictional; Adjacent	PEM	0.028	34	2	1, 2
W008-PEM-CAT2	40.711974	-81.415862	UNT to Bear Run	Jurisdictional; Abutting	PEM	0.134	34	2	2
W009-PEM-CAT2	40.712500	-81.414714	UNT to Bear Run	Jurisdictional; Abutting	PEM	0.644	34	2	1, 2
W010-PEM-CAT2	40.711034	-81.415961	UNT to Bear Run	Jurisdictional; Adjacent	PEM	0.077	33	2	2
W011-PFO-CATMOD2	40.708789	-81.414864	UNT to Bear Run	Jurisdictional; Abutting	PFO	0.072	40	Modified 2	3
W012-PFO-CAT1	40.707861	-81.416442	UNT to Bear Run	Jurisdictional; Adjacent	PFO	0.032	29	1	3
W013-PFO-CATMOD2	40.708263	-81.416201	UNT to Bear Run	Jurisdictional; Abutting	PFO	0.037	37	Modified 2	3
W014-PEM-CAT2	40.708440	-81.413717	UNT to Bear Run	Jurisdictional; Abutting	PEM	0.405	30	2	3
W015-PEM-CATMOD2	40.710146	-81.412333	LINET L. D D	To the transfer of Alley	PEM	0.248	42	Modified 2	2.2
W015-PUB-CATMOD2	40.710840	-81.412600	UNT to Bear Run	Jurisdictional; Adjacent	PUB	0.400	42		2, 3



Wetland I.D. ¹	Latitude ²	Longitude ²	Proximal Waterbody	USACE Classification ³	Cowardin Classification ⁴	Size⁵ (acres)	ORAM v. 5.0 Score ⁶	ORAM Category ⁷	Figure 2 (sheet)
W016-PEM-CAT2	40.712173	-81.412434	UNT to Bear Run	Jurisdictional; Adjacent	PEM	0.149	32	2	1, 2
W017-PEM-CAT1	40.714070	-81.413402	UNT to Bear Run	Jurisdictional; Adjacent	PEM	0.145	23	1	1, 2
W018-PEM-CAT2	40.710934	-81.419194	UNT to Bear Run	Jurisdictional; Adjacent	PEM	0.331	- 45	2	2.2
W018-PSS-CAT2	40.709731	-81.418375	UNI to Bear Run		PSS	0.222			2, 3
W019-PEM-CAT2	40.708345	-81.417928	UNT to Bear Run	Jurisdictional; Adjacent	PEM	0.552	45	2	3
W020-PSS-CATMOD2	40.707939	-81.419918	UNT to Bear Run	Jurisdictional; Adjacent	PSS	0.299	39	Modified 2	3
W021-PUB-CATMOD2	40.709078	-81.420501	UNT to Bear Run	Jurisdictional; Adjacent	PUB	0.087	37	Modified 2	3
W022-PUB-CATMOD2	40.709984	-81.419690	UNT to Bear Run	Jurisdictional; Adjacent	PUB	0.289	42	Modified 2	2, 3

Notes:

- GAI map designation.
- North American Datum, 1983.
- ³ Jurisdictional status is the opinion of GAI and must be confirmed by USACE and state agencies through the JD process.
- ⁴ PEM Palustrine Emergent; PSS Palustrine Scrub-Shrub; PFO Palustrine Forested; PUB Palustrine Unconsolidated Bottom.
- ⁵ Total acreage of wetland located within the Project study area.
- Interim scoring breakpoints for wetland regulatory categories for ORAM v 5.0 Score: Category 1 score 0 29.9; Category 1 or 2 gray zone ORAM score 30 34.9; Category modified 2 ORAM score 35 44.9; Category 2 ORAM score 45 59.9; Category 2 or 3 ORAM score 60 64.9; Category 3 ORAM score 65 100. OEPA Ecology Unit Division of Surface Water. *ORAM v. 5.0 Qualitative Score Calibration.* Dated August 15, 2000. http://www.epa.ohio.gov/portals/35/401/oram50sc_s.pdf.
- OAC Rule 3745-1-54(C)(2) defines Category 1 wetlands as wetlands which "...support minimal wildlife habitat, and minimal hydrological and recreation functions," and as wetlands which have "..hydrologic isolation, low species diversity, a predominance of non-native species, no significant habitat or wildlife use, and limited potential to achieve beneficial wetland functions." Category 2 wetlands are defined as wetlands which "...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." Degraded but Restorable Category 2 Wetlands are according to OAC Rule 3745-1-54(C) states that wetlands that are assigned to Category 2 constitute the broad middle category that "...support moderate wildlife habitat, or hydrological or recreational functions," but also include "...wetlands which are degraded but have a reasonable potential for reestablishing lost wetland functions." OAC Rule 3745-1-54(C)(2) defines Category 3 wetlands as wetlands which "...support superior habitat, or hydrological or recreational functions," and as wetlands which have "...high levels of diversity, a high proportion of native species, or high functional values."



Table 2
Waterbodies Identified Within the Project Study Area

Stream I.D. ¹	Waterbody Name	OEPA WQ Designation ²	OEPA Stream Eligibility³	Stream Type	USACE Classification ⁴	HHEI Score⁵	PHWH Class⁵	QHEI Score ⁶	Bank Width ⁷ (feet)	OHWM Width (feet)	OHWM Depth (inches)	Stream Length ⁸ (feet)	Latitude ⁹	Longitude ⁹	Figure 2 (sheet)
S001	UNT to Bear Run	-	Eligible	Ephemeral	NRPW	26	Modified Class I	-	4	3	4	316	40.71411	-81.41549	1, 2
S002	UNT to Bear Run	-	Eligible	Intermittent	RPW	29	Modified Class I	-	3	2	4	84	40.71445	-81.41926	1
S003	UNT to Bear Run	-	Eligible	Intermittent	RPW	39	Modified Class II	-	4	3	6	322	40.71377	-81.42033	1, 2
S004	UNT to Bear Run	-	Eligible	Perennial	RPW	61	Modified Class II	-	6	4	5	2,921	40.71246	-81.41758	1, 2, 3
S005	UNT to Bear Run	-	Eligible	Intermittent	RPW	54	Modified Class II	-	8	4	10	1,425	40.71273	-81.41618	1, 2
S006	UNT to Bear Run	-	Eligible	Intermittent	RPW	50	Modified Class II	-	4	3	4	509	40.71185	-81.41517	2
S007	UNT to Bear Run	-	Eligible	Intermittent	RPW	44	Modified Class II	-	5	2.5	6	84	40.70915	-81.41508	2, 3
S008	UNT to Bear Run	-	Eligible	Intermittent	RPW	55	Modified Class II	-	7	5	8	357	40.70905	-81.41511	2, 3
S009	UNT to Bear Run	-	Eligible	Intermittent	RPW	55	Modified Class II	-	5	2.5	6	639	40.70850	-81.41578	3
S010	UNT to Bear Run	-	Eligible	Intermittent	RPW	39	Modified Class II	-	3	2	4	662	40.70921	-81.41281	2, 3
S011	UNT to Bear Run	-	Eligible	Intermittent	RPW	52	Modified Class II	-	5	3	6	682	40.70979	-81.41712	2, 3
S012	UNT to Bear Run	-	Eligible	Intermittent	RPW	28	Modified Class I	-	3	2	4	64	40.70939	-81.41819	2, 3
S013	UNT to Bear Run	-	Eligible	Intermittent	RPW	40	Modified Class II	-	4	2.5	4	240	40.70747	-81.41973	3
S014	UNT to Bear Run	-	Eligible	Ephemeral	NRPW	31	Class II	-	4	2	4	114	40.70735	-81.42114	3

Notes:

- GAI map designation.
- As defined by OAC Chapter 3745-1 Water Quality Standards, Water use designations and statewide criteria (OAC 3745-1-09). http://www.epa.ohio.gov/dsw/rules/3745_1.aspx.
- As defined by the 401 WQC conditions for stream eligibility coverage under the 2017 NWP program. Streams located in Possibly Eligible areas are eligible for coverage if the pH is <6.5 or stream flow is ephemeral. Streams located in Possibly Eligible areas are also eligible for coverage if the HHEI score is <50, or if the HHEI score is between 50-69 and substrate composition is ≤10% coarse types (includes cumulative percentage of bedrock, boulders, boulder slabs, and cobble).
- ⁴ Jurisdictional status is the opinion of GAI and must be confirmed by USACE and state agencies through the JD process. RPW Relatively Permanent Waters.
- Scoring for OEPA Headwater Habitat Evaluation Index (HHEI) Primary Headwater Habitats (PHWH). Class I = 0 29.9 and include "normally dry channels with little or no aquatic life present"; Class II = 30 69.9 and are equivalent to "warm water habitat"; Class III = 70 100 and typically have perennial flow with cool-cold water adapted native fauna.
- Narrative rating for headwater streams using the OEPA Qualitative Habitat Evaluation Index (QHEI). Excellent = ≥70; Good = 55 60; Fair = 43 54; Poor = 30 42; Very Poor = <30.
- Width in feet from tops of stream bank.
- Total stream length (in feet) located within the Project study area.
- 9 North American Datum, 1983.



Table 3
ODNR and USFWS RTE Species and Critical Habitat Review Results

Common Name	Scientific Name	Habitat Type	Listing Status ¹	Habitat Type Present Within the Project Area?	Impacts to Habitat/Species Anticipated?	Restricted Construction Dates
Bats						
Indiana bat ^{2, 4}	Myotis sodalis	Trees >3" dbh	E, FE	Yes	No; Avoided with winter tree clearing	April 1 to September 30
Northern long-eared bat ²	Myotis septentrionalis	Roost in cavities or in crevices of both live trees and snags; Hibernate in caves and mines with constant temperatures, high humidity, and no air currents	SC, FT	Yes	No; Avoided with winter tree clearing	April 1 to September 30
Fish						
Iowa darter ⁴	Etheostoma exile	Cool, clear water over a sand or organic-matter substrate	Е	No	No; Known habitat types are not present within the Project area	April 15 to June 30
Insects						
Regal fritillary	Speyeria idalia	Tall-grass and mixed-grass prairies	Е	No	No; Known habitat types are not present within the Project area	-
Mammals						
Black bear ⁴	Ursus americanus	Large forested areas	E	Yes	No; Per the ODNR response, impacts are unlikely due to the migratory nature of this species	-
Mussels						
Clubshell	Pleurobema clava	Prefers clean, loose sand and gravel in medium to small rivers and streams	E, FE	No	No; Known habitat types are not present within the Project area	-
Rabbitsfoot	Quadrula cylindrica cylindrica	Streams with flowing water	E, FT	Yes	No; In-stream work is not proposed	-
Long solid ⁴	Fusconaia maculata maculata	Streams with flowing water	Е	Yes	No; In-stream work is not proposed	-



Common Name	Scientific Name	Habitat Type	Listing Status ¹	Habitat Type Present Within the Project Area?	Impacts to Habitat/Species Anticipated?	Restricted Construction Dates
Plants						
Small purple-foxglove	Agalinis purpurea var, parviflora	Damp, open situations; Shores, fens, and barrens	Е	No	No; Known habitat types are not present within the Project area	-
Variegated scouring-rush	Equisetum variegatum	Wet thickets, bogs, and sandy shores	Е	No	No; Known habitat types are not present within the Project area	-
Bog bedstraw	Galium labradoricum	Open areas of sphagnum bogs, fens, sedge meadows, and marshy ground along streams and lakes	E	No	No; Known habitat types are not present within the Project area	-
Flat-leaved rush	Juncus platyphyllus	Wet habitats; riverbanks and pond margins	Е	Yes	No; Impacts to this species are not anticipated, per the agency responses	-
Bog willow	Salix pedicellaris	Neutral bogs, sedge meadows, and willow thickets at the edge of wet meadows	E	No	No; Known habitat types are not present within the Project area	-
Shore-growing peat moss ³	Sphagnum riparium	Wet minerotrophic sites such as open bog mats (often near the water's edge), occasionally in roadside ditches	Е	Yes	No; Impacts to this species are not anticipated, per the agency responses	-
Brush tipped emerald ³	Somatochlora walshii	Lake outlets, pond outlets, and small streams that go through bogs, fens, or marshes.	E	No	No; Known habitat types are not present within the Project Area	-
Pitcher-plant	Sarracenia purpurea	Open areas of sphagnum bogs and marl fens	Т	No	No; Known habitat types are not present within the Project area	-
Few-seeded sedge	Carex oligosperma	Open, wet situations in acidic substrates; Peat bogs, marshes, and bog lakes	Т	No	No; Known habitat types are not present within the Project area	-
Green spike-rush	Eleocharis flavescens	A variety of wet, open situations; Shores, pond margins, bog mats, and fields	Т	Yes	No; Impacts to this species are not anticipated, per the agency responses	-
Simple willow-herb	Epilobium strictum	Wet, semi-open to open situations; Swamps, bogs, mossy thickets, sedge marshes, and wet meadows	Т	Yes	No; Impacts to this species are not anticipated, per the agency responses	-



Common Name	Scientific Name	Habitat Type	Listing Status ¹	Habitat Type Present Within the Project Area?	Impacts to Habitat/Species Anticipated?	Restricted Construction Dates
Plants (Continued)						
Tawny cotton-grass	Eriophorum virginicum	Open, moist situations, usually in acidic substrates; Bogs, peaty meadows, and lake margins	Т	No	No; Known habitat types are not present within the Project area	-
Sharp-glumed manna grass	Glyceria acutiflora	Wet soil; Shallow water of ponds and swamps	Т	Yes	No; Impacts to this species are not anticipated, per the agency responses	-
Northern St.John's-wort	Hypericum boreale	Wet, open to semi-open situations; Shallow water, marshes, and peaty, sandy or mucky lakeshores	Т	No	No; Known habitat types are not present within the Project area	-
Leggett's pinweed	Lechea pulchella	Dry to moist sandy plains, shores, and open woods	Т	No	No; Known habitat types are not present within the Project area	-
Flat-stemmed pondweed	Potamogeton zosteriforumis	Shallow to deep waters of lakes, rivers, creeks, and wet swales	Т	No	No; Known habitat types are not present within the Project area	-
Marsh five-finger	Potentilla palustris	Lake shores, marshy riversides, and stream margins	Т	No	No; Known habitat types are not present within the Project area	-
Hooded ladies'-tresses	Spiranthes romanzoffiana	Usually calcareous soils in alkaline fens, rich open woods, and wet sands	Т	No	No; Known habitat types are not present within the Project area	-
Drummond's aster	Symphyotrichum drummondii	Open to semi-open situations, often in dry, calcareous substrates; Prairies, open woods, woods edges, thickets, and roadsides	Т	No	No; Known habitat types are not present within the Project area	-
Flat-leaved bladderwort	Utricularia intermedia	Full sun, in both bogs and fens; Floating or rooted in mud in quiet, shallow waters	Т	No	No; Known habitat types are not present within the Project area	-
Small cranberry	Vaccinium oxycoccos	Acidic sphagnum mounds in bogs, usually in drier areas of the bog	Т	No	No; Known habitat types are not present within the Project area	-
Highbush-cranberry	Viburnum opulus var. americanum	Moist forests and forest edges, thickets, and on rocky slopes, margins of wetlands, streambanks, river terraces, and rocky shorelines	Т	No	No; Known habitat types are not present within the Project area	-



Common Name	Scientific Name	Habitat Type	Listing Status ¹	Habitat Type Present Within the Project Area?	Impacts to Habitat/Species Anticipated?	Restricted Construction Dates				
Plants (Continued)										
Wild rice	Zizania aquatica	Full sun, in water no more than two feet deep	Т	No	No; Known habitat types are not present within the Project area	-				
Reptiles										
Spotted turtle⁴	Clemmys guttata	Fens, bogs, marshes, wet prairies, pond edges, wet woods and shallow sluggish waters of small streams and ditches	Т	Yes	No; Per ODNR response, due to the type of habitat present, and the type of work proposed, the Project is not likely to impact this species.	-				

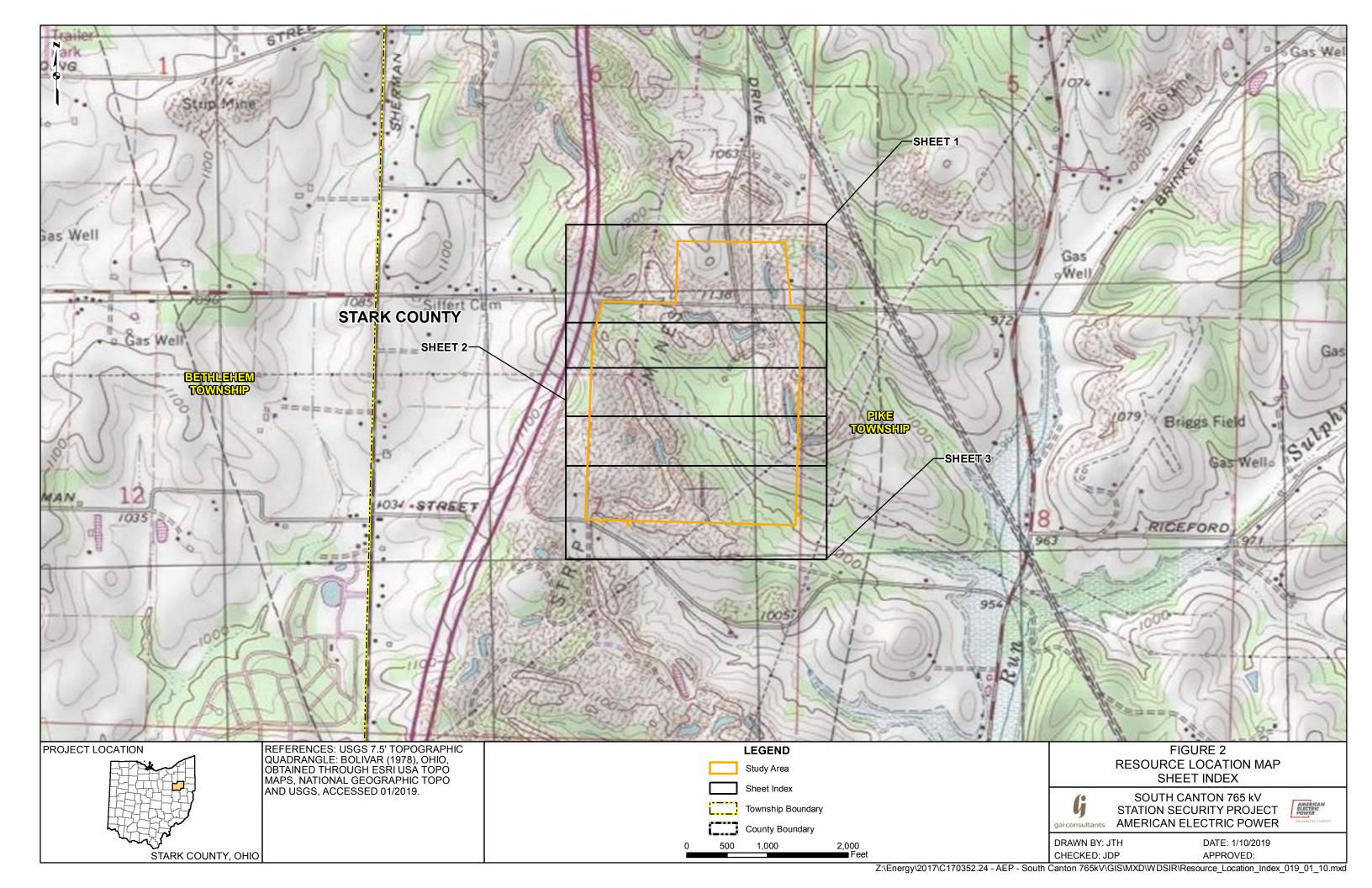
Notes:

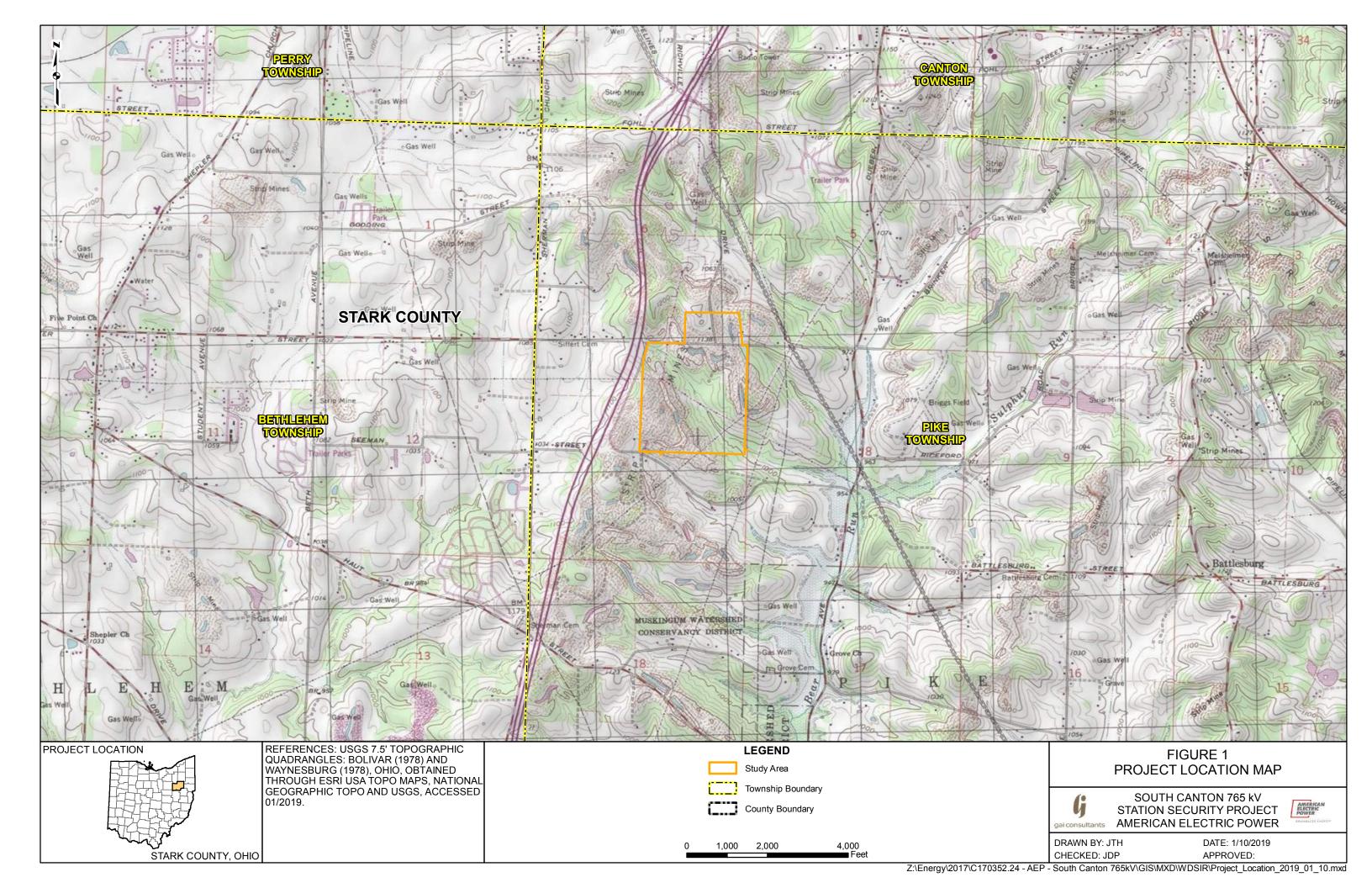
- E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; FE = federal endangered; FT = federal threatened; FSC = federal species of concern; FC = federal candidate.
- ² Federally listed species, migratory bird, or species of concern comments included in the USFWS response, dated September 22, 2017.
- Natural Heritage Database record at or within a one-mile radius of the Project area.
- ⁴ ODNR, Division of Wildlife (DOW) comments included in the ODNR response, dated December 20, 2017.

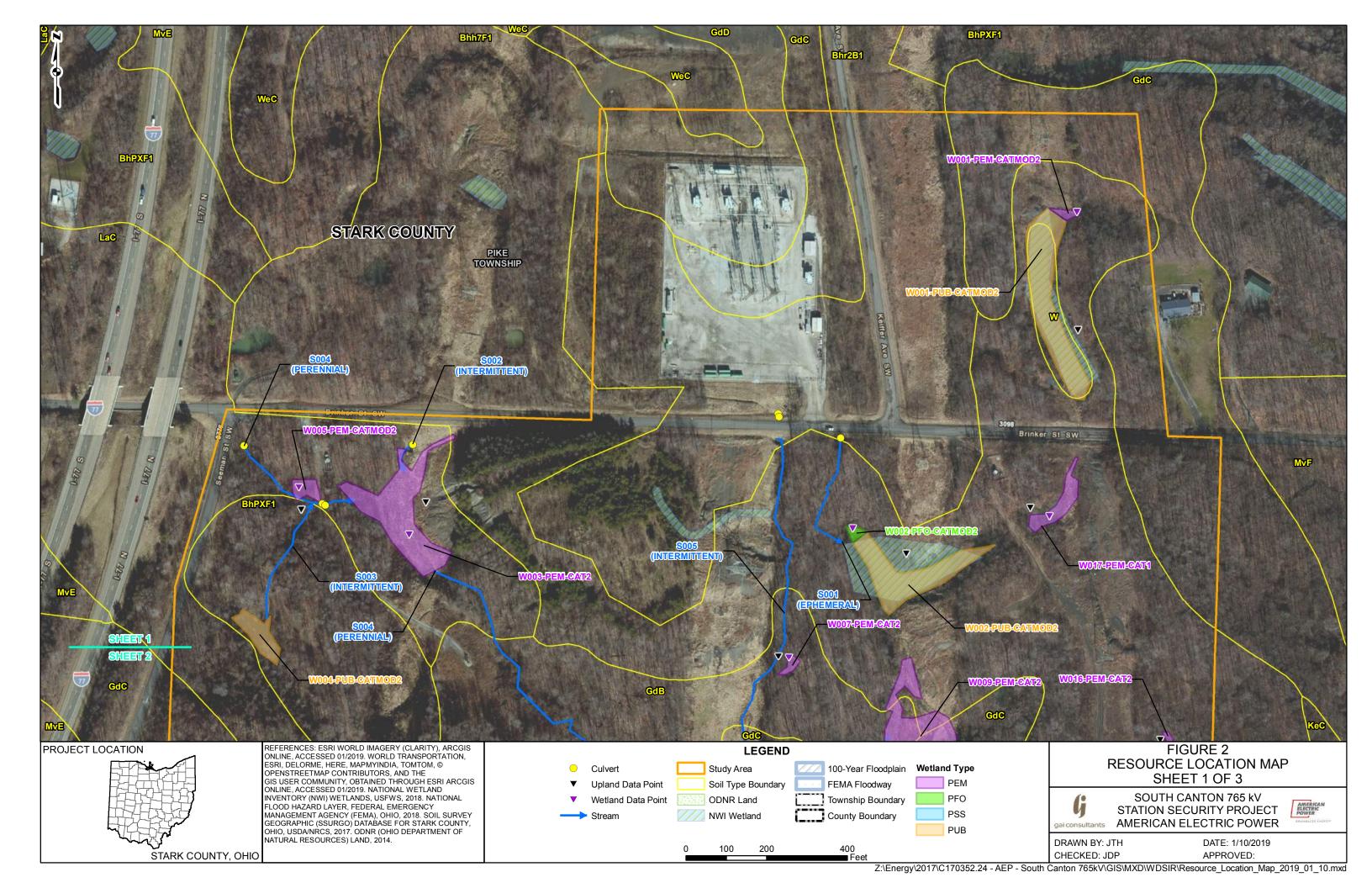


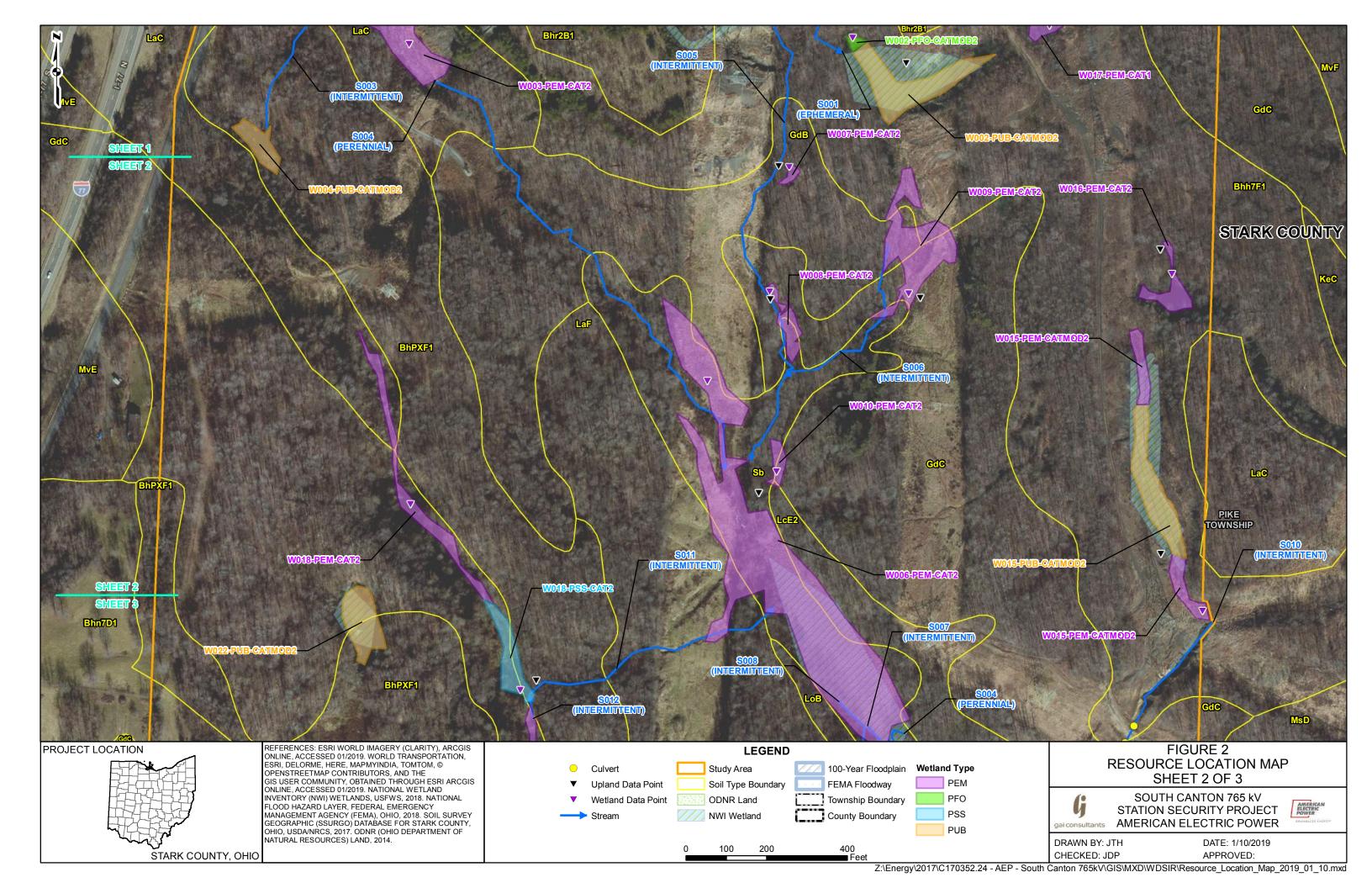
FIGURES

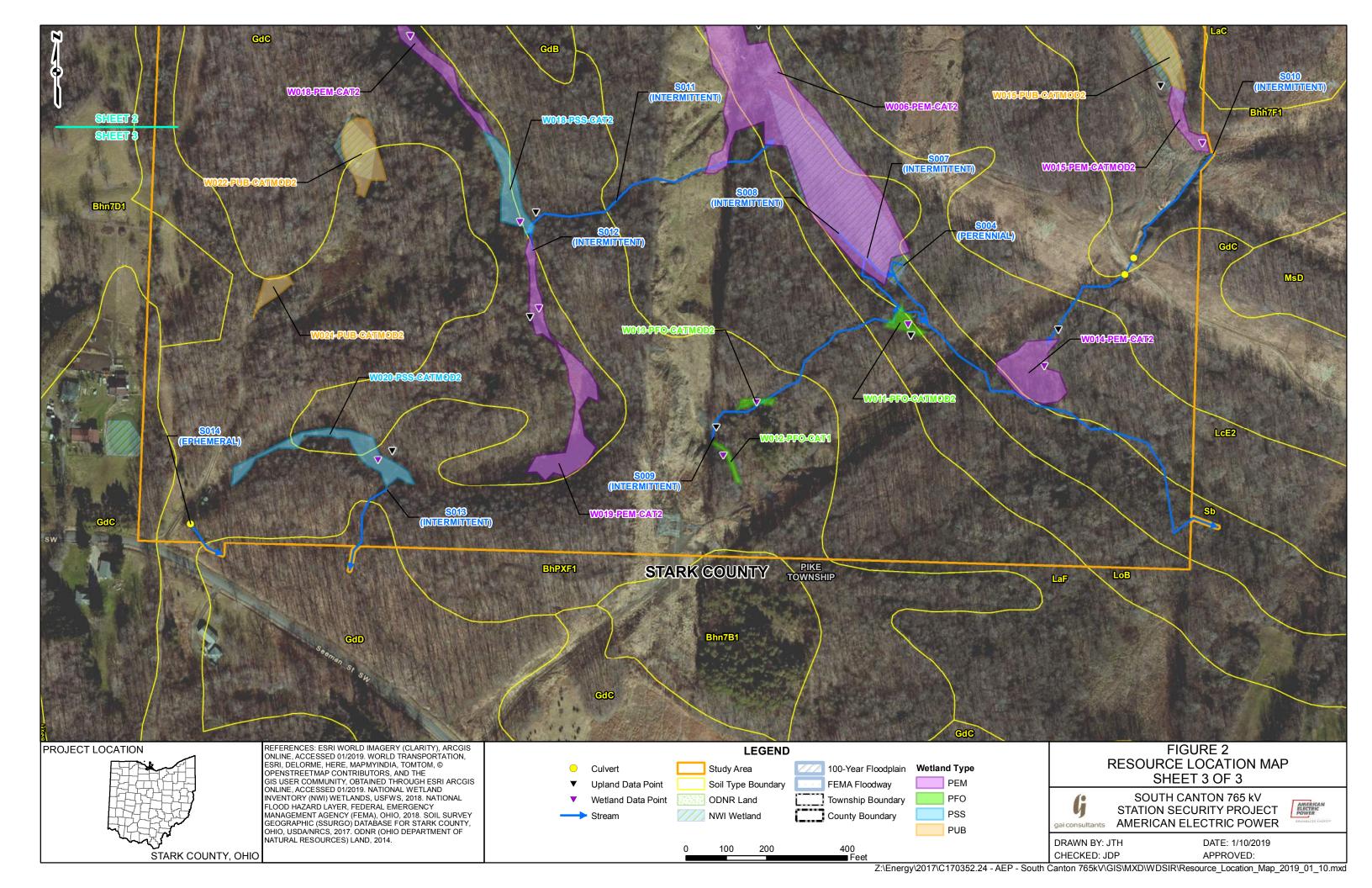


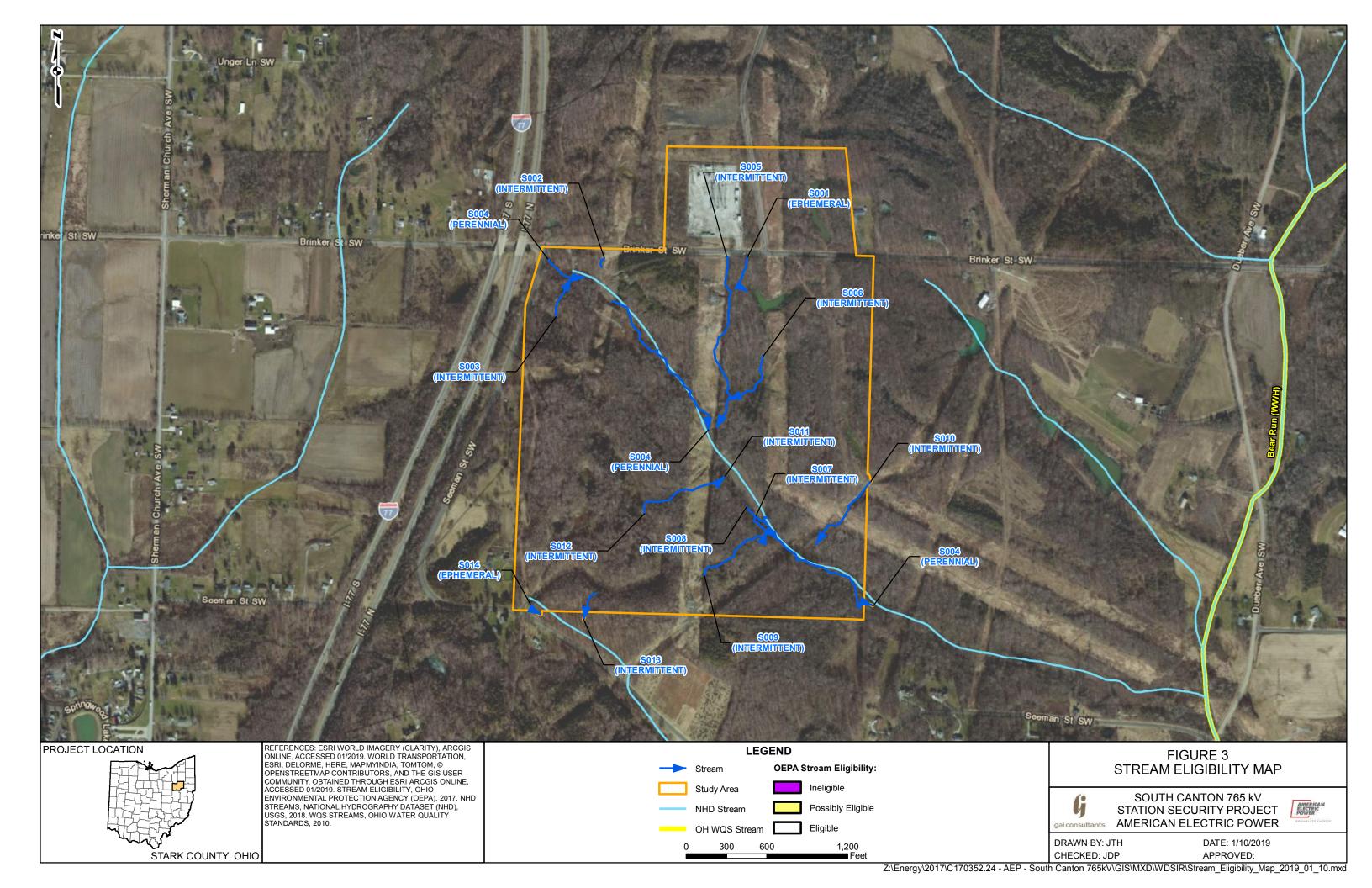












APPENDIX APhotographs





Photograph 1. Wetland W001-PEM-CATMOD2, Facing West



Photograph 2. Wetland W001-PEM-CATMOD2, Facing North





Photograph 3. Wetland W001-PUB-CATMOD2, Facing East



Photograph 4. Wetland W001-PUB-CATMOD2, Facing South





Photograph 5. Wetland W002-PFO-CATMOD2, Facing West



Photograph 6. Wetland W002-PFO-CATMOD2, Facing East





Photograph 7. Wetland W002-PUB-CATMOD2, Facing South



Photograph 8. Wetland W002-PUB-CATMOD2, Facing North





Photograph 9. Wetland W003-PEM-CAT2, Facing South



Photograph 10. Wetland W003-PEM-CAT2, Facing North





Photograph 11. Wetland W004-PUB-CATMOD2, Facing West



Photograph 12. Wetland W004-PUB-CATMOD2, Facing South





Photograph 13. Wetland W005-PEM-CATMOD2, Facing East



Photograph 14. Wetland W005-PEM-CATMOD2, Facing South





Photograph 15. Wetland W006-PEM-CAT2, Facing North



Photograph 16. Wetland W006-PEM-CAT2, Facing East





Photograph 17. Wetland W007-PEM-CAT2, Facing West



Photograph 18. Wetland W007-PEM-CAT2, Facing East





Photograph 19. Wetland W008-PEM-CAT2, Facing West



Photograph 20. Wetland W008-PEM-CAT2, Facing South





Photograph 21. Wetland W009-PEM-CAT2, Facing West



Photograph 22. Wetland W009-PEM-CAT2, Facing North





Photograph 23. Wetland W010-PEM-CAT2, Facing North



Photograph 24. Wetland W010-PEM-CAT2, Facing West





Photograph 25. Wetland W011-PFO-CATMOD2, Facing South



Photograph 26. Wetland W011-PFO-CATMOD2, Facing East





Photograph 27. Wetland W012-PFO-CAT1, Facing East



Photograph 28. Wetland W012-PFO-CAT1, Facing South





Photograph 29. Wetland W013-PFO-CATMOD2, Facing West



Photograph 30. Wetland W013-PFO-CATMOD2, Facing South





Photograph 31. Wetland W014-PEM-CAT2, Facing North



Photograph 32. Wetland W014-PEM-CAT2, Facing East





Photograph 33. Wetland W015-PEM-CATMOD2, Facing North



Photograph 34. Wetland W015-PEM-CATMOD2, Facing South





Photograph 35. Wetland W015-PUB-CATMOD2, Facing East



Photograph 36. Wetland W015-PUB-CATMOD2, Facing South





Photograph 37. Wetland W016-PEM-CAT2, Facing South



Photograph 38. Wetland W016-PEM-CAT2, Facing North





Photograph 39. Wetland W017-PEM-CAT1, Facing East



Photograph 40. Wetland W017-PEM-CAT1, Facing South



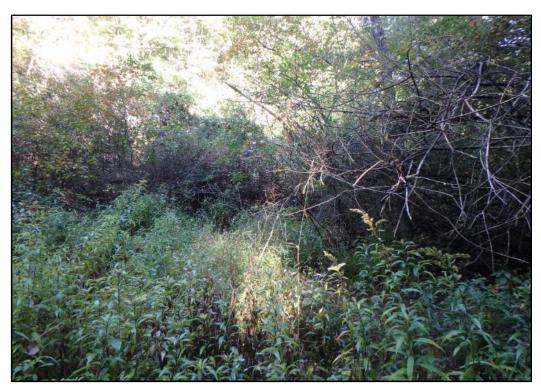


Photograph 41. Wetland W018-PEM-CAT2, Facing South



Photograph 42. Wetland W018-PEM-CAT2, Facing North





Photograph 43. Wetland W018-PSS-CAT2, Facing North



Photograph 44. Wetland W018-PSS-CAT2, Facing East





Photograph 45. Wetland W019-PEM-CAT2, Facing West



Photograph 46. Wetland W019-PEM-CAT2, Facing East





Photograph 47. Wetland W020-PSS-CATMOD2, Facing South



Photograph 48. Wetland W020-PSS-CATMOD2, Facing East





Photograph 49. Wetland W021-PUB-CATMOD2, Facing North



Photograph 50. Wetland W021-PUB-CATMOD2, Facing West





Photograph 51. Wetland W022-PUB-CATMOD2, Facing North



Photograph 52. Wetland W022-PUB-CATMOD2, Facing West





Photograph 53. Stream S001, Upstream, Facing North



Photograph 54. Stream S001, Downstream, Facing South





Photograph 55. Stream S002, Upstream, Facing North



Photograph 56. Stream S002, Downstream, Facing South





Photograph 57. Stream S003, Upstream, Facing South



Photograph 58. Stream S003, Downstream, Facing North





Photograph 59. Stream S004, Upstream, Facing Northwest



Photograph 60. Stream S004, Downstream, Facing Southeast





Photograph 61. Stream S005, Upstream, Facing North



Photograph 62. Stream S005, Downstream, Facing South





Photograph 63. Stream S006, Upstream, Facing Northeast



Photograph 64. Stream S006, Downstream, Facing Southwest





Photograph 65. Stream S007, Upstream, Facing North



Photograph 66. Stream S007, Downstream, Facing South





Photograph 67. Stream S008, Upstream, Facing Northwest



Photograph 68. Stream S008, Downstream, Facing Southeast





Photograph 69. Stream S009, Upstream, Facing Southwest



Photograph 70. Stream S009, Downstream, Facing Northeast





Photograph 71. Stream S010, Upstream, Facing Northeast



Photograph 72. Stream S010, Downstream, Facing Southwest





Photograph 73. Stream S011, Upstream, Facing West



Photograph 74. Stream S011, Downstream, Facing East





Photograph 75. Stream S012, Upstream, Facing South



Photograph 76. Stream S012, Downstream, Facing North





Photograph 77. Stream S013, Upstream, Facing North



Photograph 78. Stream S013, Downstream, Facing South





Photograph 79. Stream S014, Upstream, Facing Northwest



Photograph 80. Stream S014, Downstream, Facing Southeast





Photograph 81. Representative upland habitat, Facing South



Photograph 82. Representative upland habitat, Facing West





Photograph 83. Representative upland habitat, Facing South



Photograph 84. Representative upland habitat, Facing West



APPENDIX BWetland Determination Data Forms



WETLAND DETERMINATION DATA FOR	
Project/Site: South Canton City/Co	ounty: Stark Co. Sampling Date: 97/207
Applicant/Owner: AFV	State: OH Sampling Point: WOO 1-PEM - CATMOD
Investigator(s):	Section, Township, Range: PIKE TWD
Landform (hilslope, terrace, etc.):	ocal relief (concave, convex, none): CONCAVE Slope (%)
Subregion (LRR or MLRA): Lat. 40. 716	
Soil Map Unit Name: Bhh7F1-Bethoodd Channery loam 25 to	101.5005 NWI classification: DUBG
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks)
Are Vegetation Mo , Soil Mo , or Hydrology Mo significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation 10, Soil 10, or Hydrology 10 naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
	ne Sampled Area within a Wetland?
	ne Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No	
Remarks: Wetland data point for WOOI-PEM-	CATMODZ,
DI III Van A Shi anni and	under Arguman artical in RNA
Data point taken at Stripmine pind	under that BINDSIM LINE HOW.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) V Oxidized Rhizospheres on L	
Water Marks (B1) Presence of Reduced Iron (I	
Sediment Deposits (B2) Recent Iron Reduction in Till	ed Soils (C6) Crayfish Burrows (C8)
Driff Deposits (D2)	Saturation Visible on Aerial Imagen (CO)
Drift Deposits (B3) Thin Muck Surface (C7) Other (Fysicin in Reports)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
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Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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Tree Stratum (Plot size:	301	Absolute) % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are
1. NMC.		===	-	====	OBL, FACW, or FAC:(A)
3					Total Number of Dominant Species Across All Strata:(B)
4		-		-	Percent of Dominant Species That Are
5				-	OBL, FACW, or FAC: (A/B)
7		0	= Total Co	ver	Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum , (Plot size:	15				OBL species x 1 =
	15'	10_	4	FAC	FAC species x 3 =
3					FACU species
4 5					Column Totals: (A) (B)
6					Prevalence Index = B/A =
7					Hydrophytic Vegetation Indicators:
9		===			1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
		10	= Total Co	ver	3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:	5'	70	. 1	N-I	data in Remarks or on a separate sheet)
1. Leersla onyzoides 2. Tupha Xalauca :	e s	10	4	001	Problematic Hydrophytic Vegetation¹ (Explain)
3 Fubitionium pertoliat	tlm	12	7	Fach	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5			_1 <i>A</i> _	TACAC	Definitions of Vegetation Strata:
6 ^x ,					Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
B					diameter.
9					
11				2	Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
		100	= Total Co	ver	
Woody Vine Stratum (Plot size:	201				Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size:)		G	<u> </u>	of size, and woody plants less than 3.28 ft tall.
3.					Woody Vines - All woody vines greater than 3.28 ft in
4					height.
6					
	8		= Total Co	Ver	
					Hydrophytic Vegetation
					Present? Yes No
Vegetation Remarks: (Include photo numbers he	re or on a separate	sheet).			1 11-1
Wetland veg is dom	inant -	asses	s the c	domir	rance test and rapidlest.
J	,				

Soil Profile De	escription: (Describe to	the depth	needed to document	the indicator	or confirm th	ne absence	of indicators.)	
Depth	Matrix			Redox Featu				
O-U	Color (moist)	100	Color (moist)	%	Type ¹	Loc ²		Remarks
4-16	104R41	40	104R446	30				
-		-		-				
			1/3				. — — —	
		8			-			
		-	77					
		3:	(1	-	: —————————————————————————————————————	5 	- F Si	
		-	±					
¹Type: C=cond	entration, D=Depletion,	RM=Reduce	ed Matrix. MS=Maske	d Sand Grains		-	² Location: PL≃Pore	Lining, M=Matrix.
Hydric Soil Inc			ON THE STATE OF TH					lematic Hydric Soils ³ :
Black Hist Hydrogen Stratified I 2 cm Mucl Depleted I Thick Dark Sandy Mu MLRA 147 Sandy Gle Sandy Rec Stripped M	bedon (A2) ic (A3) Sulfide (A4) Layers (A5) k (A10) (LRR N) Below Dark Surface (A1 k Surface (A12) cky Mineral (S1) (LRR N 7,148) byed Matrix (S4) dox (S5) Atrix (S6) of hydrophytic vegetation	s I,	Dark Surface (Polyvalue Beld Thin Dark Surface (Depleted Matr Redox Dark S Depleted Dark Redox Depres Iron-Mangane: Umbric Surface Piedmont Floc Red Parent Matric Surface Ned Parent Matric Surface	ow Surface (S8 face (S9) (MLF I Matrix (F2) ix (F3) urface (F6) a Surface (F7) asions (F8) se Masses (F1 ive (F13) (MLR I Material (F21) (Material (F21) (Material (F21) (Material (F21) (Material (F21) (MLR I Material (F21) (Material (F21)	2) (LRR N, M 4 136, 122) 	ILRA 136) 48) 7)	Coast Prairie R Piedmont Floor (MLRA 136, 14 Very Shallow D Other (Explain	Oark Surface (TF12)
Soil Descripti	on Remarks:	cts F?						
	1.160	-10 T-	2.0					

the state of the s	1 - Eastern Mountains and Pledmont Region
Project/Site: South Canton City/Cour	nty: StarkCo Sampling Date: 97207
Applicant/Owner:	State: Sampling Point: W001-PEM-CATMOD2-UPL
Investigator(s):	Section, Township, Range: PKCTW
The state of the s	cal relief (concave, convex, none):
Subregion (LRR or MLRA): Lat: 40 71524	
Soil Map Unit Name: Bhh IFI-Bethesdd Channery loam 25 to	
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks) Are "Normal Circumstances" present? Yes V No
Are Vegetation $\frac{MO}{MO}$, Soil $\frac{MO}{MO}$ or Hydrology $\frac{MO}{MO}$ significantly disturbed? Are Vegetation $\frac{MO}{MO}$, Soil $\frac{MO}{MO}$ or Hydrology $\frac{MO}{MO}$ naturally problematic?	Are "Normal Circumstances" present? Yes No No
• • -	mpling point locations, transects, important features, etc.
Summart of Findings - Attach site map showing sai	mpining point locations, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes No	/
Hydric Soil Present? Yes No Is the	Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Data point taken ontop of old Sport	ATMODZ.
C 1 C	Late from me - Idu Stramine.
Data point taken or top of old spor	The tion he was such titles.
9	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Livi	ing Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4	4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled	
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aenal Imagery (B7) Water-Stained Leaves (B9)	Shallow Aquitard (D3) . Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No V Depth (Inches):	_
Water Table Present? Yes No/ Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections),	if available:
Remarks:	
Wetland hydrology is not present	Tw.
(t)	
	(1
	5
	1
	÷

Tree Stratum (Plot size: 20)	Absolute	Dominant Indicator	Dominance Test worksheet:
29.0) <u>% Cover</u>	Species? Status	Number of Dominent Species That Are
1. NONE			OBL, FACW, or FAC:
2			Total Number of Dominant Species
3,			Across All Strate: (B)
4			
5.		3. 3. 3.	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6			
7.	-	i	Prevalence Index worksheet:
·		= Total Cover	Total % Cover of: Multiply by:
161			OBL species x 1 =
Sapling/Shrub Stratum (Plot size:	-) 2^	1 5001	FACW species x 2 =
1. Rubus allegheniensis	- 40	7 1100	FAC species x 3 =
2. Grantsia triaccinthos 3. Franquid alnus	<u> </u>	7 5	FACU species x4 =
		11 110	UPL species
5,			Column Totals. (b)
6			Prevalence Index = B/A =
7			
8		-	Hydrophytic Vegetation Indicators:
9		s 	1 - Rapid Test for Hydrophytic Vegetation
10	20	H	2 - Dominance Test is >50%
	<u></u>	= Total Cover	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5'	V.		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. Phytolaca americana	-15	V FACI)	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Cinsium arrense	15	TEAU	- Hobbinian Hydrophylio Cogodian (Explany
3 Panicum Cladestinum	5	N FACO	Indicators of hydric soil and wetland hydrology must
4. Solidago cemadens 15	20	V FAW	be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			
7,			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8,	-		diameter.
9.	-	. 	
11.		4	Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.			DBH and greater than or equal to 3.28 ft (1 m) tall.
1.00	55	= Total Cover	92501
			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size: 30'	_)		of size, and woody plants less than 3.28 ft tall.
1. NONC			
2.			Woody Vines - All woody vines greater than 3.28 ft in
3	-		height.
4,			noight.
6.			
***************************************	6	= Total Cover	8
			Hydrophytic
			Vegetation
			Present? Yes No V
Vegetation Remarks: (Include photo numbers here or on a separa	ite sheet\		30
			2
Upland veg is downing	MIA.		
, 0			
G.			
			•

Soil Profile De	scription: (Describe to th	e depth nee	ded to document t	he indicator	or confirm th	ne absence	of indicators.)	
Depth	Matrix			Redox Featu				
(inches)	Color (moist)	<u></u>	Color (moist)	100	Type ¹	Loc²	Texture	coal refuse material
	3.5			e e	-		/ 	
	: : : : : : : : : : : : : : : : : : : 				·	<i>7</i>		
	17-							
	:			s 	-	-		
	:			-				
					: :	-	:	
Tuno: C-cono		4-Podugod N	Astriy MS-Masked	Sand Grains		*	2) contion: DI	=Pore Lining, M=Matrix.
	entration, D=Depletion, RN	/=Reduced N	natrix, MS=Masked	Sand Grains.				r Problematic Hydric Solls ³ :
Hydric Soil Ind								Dome-1
Histosol (A Histic Epip	•	-	Dark Surface (S Polyvalue Belov	•	3) (MLRA 147	, 148)		uck (A10) (MLRA 147) rairie Redox (A16) (MLRA 147, 148)
Black Histi		_	Thin Dark Surfa	ace (S9) (MLF	RA 147, 148)	-	Piedmoi	nt Floodplain Soils (F19)
Hydrogen	Sulfide (A4)	-	Loamy Gleyed	Matrix (F2)			(MLRA	136, 147)
Stratified L	ayers (A5)	-	Depleted Matrix	(F3)			Very Sh	allow Dark Surface (TF12)
2 cm Muck	(A10) (LRR N)	<u></u>	Redox Dark Su	rface (F6)			Other (E	xplain in Remarks)
Depleted E	Below Dark Surface (A11)	-	Depleted Dark	Surface (F7)				
	Surface (A12)		Redox Depress					
	cky Mineral (S1) (LRR N,	241	Iron-Manganes	· ·		LRA 136)		
MLRA 147	,1 48) yed Matrix (S4)	-	Umbric Surface Piedmont Flood			40\		
Sandy Red			Red Parent Mat	•		•		
Stripped M		77 =	Treu l'alcin mai	tonai (i z i) (iv	12101 121, 14	• /		
³ Indicators	of hydrophytic vegetation	and wetland	hydrology must be p	present, unles	ss disturbed o	or problemat	ic.	
Restrictive La	yer (if observed):							
Type: Depth (inch	nes):					Hydri Soil Pres		/es No
0.110								
Soil Description	on Remarks:	iric Se	ils not p	resent	-50	ils an	re entir	ely coal spal
								a

WETLAND DETERMINATION DATA FORM - Eastern	- 24 to 14 co
Project/Site: Suth Canton City/County: Star	Sampling Date: 97707
Applicant/Owner: APP	State: OH Sampling Point: W002-PF0-(ATMOD2
Investigator(s): Section, Towns	
	ve, convex, none): Slope (%) 1
Subregion (LRR or MLRA): Lat: 40, 7/39/8	Long: -81, 415243 Datum: NAD83
soil Map Unit Name: Bhh7F1-Bethesda Channey Joan, 25 to 70%.	NWI classification: POBGX
Are climatic/hydrologic conditions on the site typical for this time of year?	No (If no, explain in Remarks)
Are Vegetation (1) , Soil (1) , or Hydrology (1) significantly disturbed? Are Vegetation (1) , Soil (1) , or Hydrology (1) naturally problematic?	Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.)
Are Vegetation (1) Soil (1) , or Hydrology (10) naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point	
Sommart of Findings - Attach site map showing sampling point	locations, transcots, important locations, etc.
Hydrophytic Vegetation Present? Yes No	/
Hydric Soil Present? Yes No Is the Sampled Are	a within a Wetland? Yes No
Wetland Hydrology Present? Yes No	^ *
Remarks: Wetland data point for wooz-PFO-CATMODZ.	
	* * * * * * * * * * * * * * * * * * * *
Data point taken on backside PUB.	
1000000	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
·—-	
Tecent non reduction in thick 30ils (Co)	Crayfish Burrows (C8)
Sediment Deposits (B2) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	Crayish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
	** ** ** ** ** ** ** ** ** ** ** ** **
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aenal Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4) Thin Muck Surface (C7) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
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Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No

Tree Stratum (Plot size: 30)	Absolute	Dominant Indicator	Dominance Test worksheet:
1. Ach SACHARINUM) % Cover 15	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2 Arer rubrum	16		(A)
		7 110	Total Number of Dominent Species Across All Strate: (B)
3	. ——	- 1 -	Across All Strate.
4			Percent of Dominant Species That Are
5			OBL, FACW, or FAC:
6 7	-		Prevalence Index worksheet:
	30_	= Total Cover	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15	1		OBL species x 1 = FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 1991)	20	Y FACILY	FAC species x3 =
2. Acer rubrum.	15	Y FAC	FACU species x 4 =
3. Umils americana	75	7 HKW	UPL species x 5 =
4. Fraxinus pennsylvanica	_10_	THE PROPERTY	Column Totals: (A) (B)
6.	# 		Prevalence Index = B/A =
7,			
8	X (4————————————————————————————————————		Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
9	£ 		2 - Dominance Test is >50%
	60	= Total Cover	3 - Prevalence Index is ≤3.0 ¹
\approx			4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum 1. Lecusia ovyzodes) Un	V Obl	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
2.		4 501	Trobinial Hydrophylic Vegetation (Explain)
3.			Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5. 6.			Definitions of Vegetation Strata:
7.	Y/1		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8	-		diameter.
9.	:: 	×	
10			Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.	-		DBH and greater than or equal to 3.28 ft (1 m) tall.
	<u>40</u>	= Total Cover	
_ •			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size: 30')		of size, and woody plants less than 3.28 ft tall.
1. NONC	: :		
2,			Woody Vines - All woody vines greater than 3.28 ft in
3		\$	height.
5			
6.	_		
		= Total Cover	
			Hydrophytic
			Vegetation
		1	Present? Yes No
Vegetation Remarks: (Include photo numbers here or on a separate	sheet).		1 _
Wettand veg 15 demindet - passes	5 the	timinance	tcst.
Wetland veg 13 deminant Poisson			
, and the second			

Soil Profile Description: (Describe to the depth nee	eded to document the indicator or confirm the absence	e of indicators.)
Depth	Redox Features Color (moist) % Type¹ Loc² 10YR 4 (0 40 /	Texture Remarks Sittledm Jodin
¹Type: C=concentration, D=Depletion, RM=Reduced	Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147)	
Restrictive Layer (if observed): Type: Depth (inches):	Hyd Soil Pro	ric /
Soil Description Remarks: Meets F3.		

WETLAND DETER	MINATION DATA FORM - Easter	n Mountains and Piedmont Region	
Project/Site: South Canton	City/County:	turk Co. Sampling Date: 917	2017
Applicant/Owner:	Shyloodiny	State: OH Sampling Point: 4002-Pi	FO-1 ATAMAZ - LE
Investigator(s):	Section Tow	wiship, Range: PIKETWP	O CHIMOBE OF
Landform (hilslope, terrace, etc.):		M O A M	pe (%) O /
Subregion (LRR or MLRA):	Lat: 40 7137.39	, Long: -81.414767 Datum: N	A COP
Soil Map Unit Name: Bhh TFL-BehcsdaCV	namery loam 25 to 701	NWI classification:	JIA
Are climatic/hydrologic conditions on the site typic	100000	/ 1	4/14
Are Vegetation Ω_{-} , Soil Ω_{-} , or Hydrology	cal for this time of year? Yes Significantly disturbed?		/ No
00 00	4.5	Are "Normal Circumstances" present? Yes	No
<u> </u>	naturally problematic?	(If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - AT	tach site map showing sampling poli	int locations, transects, important features, etc.	
Hydrophytic Vegetation Present? Yes	No 🗸		4
Hydric Soll Present? Yes	No Is the Sampled A	Area within a Wetland? Yes	No V
	No		
Remarks: Upland data point to	WOOZ-PFO-CATMODZ.		
Data point taken on a	in I soul pile, with the	ansmission line ROW .	
Data point take none	Laci sport price with the		
1			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required	$\overline{\mathbf{n}}$
Primary Indicators (minimum of one is required, check all that		Surface Soil Cracks (B6)	(- -)
Surface Water (A1)	_ True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (H8)
High Water Table (A2)	_ Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)	
Saturation (A3)	Oxidized Rhizospheres on Living Roots (C3		
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)	
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)	
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C	9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)	
Iron Deposits (B5)		Geomorphic Position (D2)	
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)	
Water-Stained Leaves (B9) Aquatic Fauna (B13)		Microtopographic Relief (D4)	
Aquatic Fauria (D13)		FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? Yes No V	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
· · · · · · · · · · · · · · · · · · ·	Depth (inches):	Wetland Hydrology Present? Yes	No. \
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	wetiand hydrology Present?	NO _V
Describe Recorded Data (stream gauge, monitoring well, aeri	al photos provious inspections) if available:		
Describe Necorded Data (Stream gauge, Monitoring well, aen	ai priotos, previous inspections), ii avaliable.		
Demodes			
Remarks:	not a such		
Wetland hydrology	not present.		
5	•		

Sampling Point: WOOZ-PFO- CATMODZ- UPL

Tree Stratum (Plot size: 30)	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
, NAA			Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant Species
3		: 	Across All Strata:(B)
5,			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6,			3999
7,	0	= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by:
16/			OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15'	, 50	V FACU	FACW species x 2 = FAC species x 3 =
2 Frangula alnus	IO	N FAC	FACU species x 4 =
3			UPL species x 5 = (A) (B)
5			
6. 7.	-		Prevalence Index = B/A =
8,			Hydrophytic Vegetation Indicators:
10	-		1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
	<u> </u>	= Total Cover	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size: 5) 15		data in Remarks or on a separate sheet)
Solidago Canadensis	15	7 10	Problematic Hydrophytic Vegetation ¹ (Explain)
3 Frechtites hieraciifalius		FACU	¹ Indicators of hydric soil and wetland hydrology must
4	-		be present, unless disturbed or problematic. Definitions of Vegetation Strata:
5,			- Committee of Cognition and the
7	-		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
9,			
10 11			Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.	25		DBH and greater than or equal to 3.28 ft (1 m) tall.
	155	= Total Cover	
Woody Vine Stratum (Plot size: 30'			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size: 30	_)		of size, and woody plants less than 3.28 ft tall.
2	-		Woody Vines - All woody vines greater than 3.28 ft in
3			height.
5	-		
6	0	= Total Cover	
			Hydrophytic
			Vegetation
			Present? Yes No
Vegetation Remarks: (Include photo numbers here or on a separat	te sheet).		
Upland veg is dominant.			
Character 120 12 2121111111111111111111111111111			

	/latrix		ox Features		
(inches) Color (moi		Color (moist)	% Type ¹	Loc ² Texture	Remarks
>10 104R4	2 100			Sill barn	
					0
ype: C=concentration, D=Dep	letion, RM=Reduced	Matrix, MS=Masked Sand	d Grains.	² Location: PL=Pore	e Lining, M=Matrix.
dric Soil Indicators:				Indicators for Prot	olematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surfa Thick Dark Surface (A12) Sandy Mucky Mineral (S1) MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)		Thin Dark Surface (\$ Loamy Gleyed Matrix Depleted Matrix (F3) Redox Dark Surface Depleted Dark Surfa Redox Depressions Iron-Manganese Ma Umbric Surface (F13) Piedmont Floodplain	(F6) ce (F7) (F8) sses (F12) (LRR N, ML	Coast Prairie I Piedmont Floc (MLRA 136, 1 Very Shallow I Other (Explain	Dark Surface (TF12)
Stripped Matrix (S6) 3Indicators of hydrophytic versions are selected as a selected select	egetation and wetland				
estrictive Layer (if observe		, , , , , , , , , , , , , , , , , , , ,			
Type:				Hydric Soil Present? Yes	No
il Description Remarks:	Soils not	present.	147	1)	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region
Project/Site: Sampling Date: 9 17 20 17 Applicant/Owner: State: Sampling Date: 9 17 20 17 Applicant/Owner: State: Sampling Point: Woo3-PEM-CAT2 Investigator(s): Section, Township, Range: Section, Township, Range: Section, Township, Range: Solitor, Township, Range: Section, Township, Range: Solitor, T
Hydric Soil Present? Yes No Is the Sampled Area within a Wetland? Yes No No No
Data point taken with in transmission Line ROW.
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required, check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Welland hydrology Indications are Al, A3, C1, C3, D2 and D5.

Sampling Point: WOO3-PEM-CATZ

- a	(Plot size: 30	Absolute	Dominant Indicator	Dominance Test worksheet:
1. NMC	(Plot size:) % Cover	Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
		-		OBL, FACW, OF FAC.
) ·	Total Number of Dominant Species
				Across All Strate:(B)
7=====				Percent of Dominant Species That Ara
5		-		OBL, FACW, or FAC:(A/B)
7.				Prevalence Index worksheet:
~			= Total Cover	Total % Cover of: Multiply by:
Sapling/Shrub Stratum	(Plot size: 15	,		OBL species x 1 =
1. NMC	(Plot size.	-/		FACW species x 2 = FAC species x 3 =
				FACU species x 4 =
				UPL species x 5 =
				Column Totals: (A) (B)
				Prevalence Index = B/A =
7				
				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
10.				2 - Dominance Test is >50%
		O	= Total Cover	3 - Prevalence Index is ≤3.0¹
Herb Stratum	(Plot size: 5/	1		4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
1. Typha xalauc	d (Flot size.	40	V Obl	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Juneus + Husu	(5, ,	15	N Facily	
3. Persicuria sag	ittatum	- 15	N Obl	Indicators of hydric soil and wetland hydrology must
5. Carex Jurida	rinus	- 18	7 tacw	be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6				
7				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
				diameter
10				
11				Sapilng/Shrub- Woody plants, excluding vines, less than 3 in.
12-		00	- Total Course	DBH and greater than or equal to 3.28 ft (1 m) tall.
		<u> </u>	= Total Cover	
	A708 .			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum	(Plot size: 301	_)_		of size, and woody plants less than 3.28 ft tall.
1NONC				
3.				Woody Vines - All woody vines greater than 3.28 ft in
4				height.
5				
U		0	= Total Cover	
			~	Hydrophytic Vegetation
				Present?
2559 355 375	76 Vo	720 1.4800		
Vegetation Remarks: (Include ph	noto numbers here or on a separat	te sheet).	. [1.0]	. 10
Wetland veg is	anninant-passes	the	rapid test c	and dominance test
	184			

Soil Profile Description: (Describe to the depth	needed to document the indicator or confirm th	e absence of Indicators.)	
DepthMatrix	Redox Features		
(inches) Color (moist) %	Color (moist) % Type ¹	Loc ² Texture	Remarks
0-6 104R211 100	· _ ' 	loam	
6-16 13/ 100		Claylodm	
h 	· 		
·			
19.2 	·		
		 = o=	
·	; 		
<u> </u>			
	· <u></u>		
¹ Type: C=concentration, D=Depletion, RM=Reduce	ed Matrix, MS=Masked Sand Grains.	² Location: PL=Po	ore Lining, M=Matrix.
Hydric Soil Indicators:		Indicators for Pr	oblematic Hydric Solls ³ :
Histosol (A1)	Dark Surface (S7)	2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147		e Redox (A16) (MLRA 147, 148)
Black Histic (A3)	Thin Dark Surface (S9) (MLRA 147, 148)	Piedmont Fl	oodplain Soils (F19)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	(MLRA 136,	
Stratified Layers (A5)	Depleted Matrix (F3)		v Dark Surface (TF12)
2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11)	Redox Dark Surface (F6) Depleted Dark Surface (F7)	Other (Expla	in in Remarks)
Thick Dark Surface (A12)	Redox Depressions (F8)		
Sandy Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LRR N, M	LRA 136)	
MLRA 147,148)	Umbric Surface (F13) (MLRA 136, 122)		
Sandy Gleyed Matrix (S4)	Piedmont Floodplain Soils (F19) (MLRA 1		
Sandy Redox (S5) Stripped Matrix (S6)	Red Parent Material (F21) (MLRA 127, 14	')	
	nd hydrology must be present, unless disturbed o	r problematic.	
Restrictive Layer (if observed):			
Type:		Hydric	1
Depth (inches):		Soil Present? Yes	No
Soil Description Remarks: NA 15 50		V	
Soil Description Remarks: Meets F2	ATIC: VIII		
1			
5)			
	2		

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region Sampling Date: 91712017 Project/Site: Applicant/Owner: Section, Township, Range: PIKC TWP Investigator(s): Local relief (concave, convex, none): CONVCX Landform (hilslope, terrace, etc.): Long: -81, 419053 Subregion (LRR or MLRA): Soil Map Unit Name: NWI classification: Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in Remarks) significantly disturbed? Are Vegetation 10, Soil 15, or Hydrology naturally problematic? Are Vegetation 10, Soil 15, or Hydrology (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Hydric Soil Present? Is the Sampled Area within a Wetland? Wetland Hydrology Present? Data point taken on coal spoilpile with transmission line Row. Unreclaimed Stripe mine Sitc. **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required, check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Moss Trim Lines (B16) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Thin Muck Surface (C7) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Other (Explain in Remarks) Geomorphic Position (D2) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5) Aquatic Fauna (B13) Field Observations: Yes _____ No ____ Surface Water Present? Depth (inches): Yes ____ No ____ Water Table Present? Depth (inches): Wetland Hydrology Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Wetland hydrology Is not present.

Tree Stratum (Plot size: 30)	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3			Total Number of Dominant Species Across All Strate: (B)
4 _* 5 _* 6 _*			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum 1. NONC 2. 3.		0—————————————————————————————————————	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 =
5. 6.			Column Totals: (A) (B) Prevalence Index = B/A =
7. 8. 9.		·	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
Herb Stratum 1. Solidaan Canadehsis 2. Cinsium anidis		Y FacU	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
Schold Viridis		- FOCU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata:
7,			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
11		= Total Cover	Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
Woody Vine Stratum 1. Nonc		Q 	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2,			Woody Vines - All woody vines greater than 3.28 ft in height.
6	0	= Total Cover	lluda abuda
			Hydrophytic Vegetation Present? YesNo
Vegetation Remarks: (Include photo numbers here or on a se	parate sheet).		П

Soil Profile Description: (Describe to the depth	needed to document the indicator or confirm the	ne absence of indicators	.)
Depth Matrix	Redox Features Color (moist) % Type ¹	Loc² Texture	Coal refuse -spoil-gravel coal refuse material
¹ Type: C=concentration, D=Depletion, RM=Reduc	ed Matrix, MS=Masked Sand Grains.	² Location: F	L=Pore Lining, M=Matrix.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11)	Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147 Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7)	2 cm M C, 148) Coast I Piedmo (MLRA Very Si	or Problematic Hydric Soils ³ : luck (A10) (MLRA 147) Prairie Redox (A16) (MLRA 147, 148) ont Floodplain Soils (F19) 136, 147) hallow Dark Surface (TF12) Explain in Remarks)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, N Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 1 Red Parent Material (F21) (MLRA 127, 14	48)	v
³ Indicators of hydrophytic vegetation and wetle	and hydrology must be present, unless disturbed of	or problematic.	
Restrictive Layer (if observed): Type: Depth (inches):			Yes No
Soil Description Remarks: Hydric Soils r taken on	not present - Unveclairme spoil pile	d Strip min	e - Soilsample

WETLAND DETERMINATION DATA FORM - Eastern M	ountains and Piedmont Region
Project/Site: Suth Cunty City/County: Stark	<u>Co</u> Sampling Date: 9/8/26/7
Applicant/Owner:	State: OH Sampling Point: WOOS-PEM-(ATMOD)
Investigator(s): Section, Township	Range: PIKE TWP
Landform (hilslope, terrace, etc.):	
Subregion (LRR or MLRA): Lat: 40, 714243	Long: 81,420188 Datum: NAD 83
Soil Map Unit Name: Lac-Lathern Sittleam, 8 to 151, 51898	NWI classification:
Are Vegetation 00, Soil 00, or Hydrology 00 significantly disturbed?	No (If no, explain in Remarks) Are "Normal Circumstances" present? Yes No
-0.4	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point to	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes V	6
	within a Wetland?
Hydric Soil Present? Yes No Is the Sampled Area	Autum a Metiand.
Wetland Hydrology Present? Yes No	
Remarks: Walland data for WOOT-PEM-CATMODZ	· A August - a
Datapoint taken within ripanian of perer	mo stram.
Doold barrer mar as I well il therefore to be a	
	5
HADBOLOGA	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) True Aquatic Plants (B14)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) / Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Вилоws (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Geomorphic Position (D2) Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	,
	etland Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches): Wo (includes capillary fringe)	etiand nydrology Present? Tes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	02 5 11 0 55
Wetland hydrology Indicators are A3	, C3, V2 avol 1) b.
J1	
	9

:	(Plot size: 30	Absolute		15000	ominance Test worksheet:	Î
Tree Stratum	(Plot size:) <u>% Cover</u>	Species? Sta		umber of Dominant Species That Are	3
1. Nove	r				BL, FACW, or FAC:	(A)
					otal Number of Dominant Species	3
3				Ac Ac	cross All Strata:	(B)
4		-	-		ercent of Dominant Species That Ara	1001
**					BL, FACW, or FAC:	(A/B)
7,				Pr	revalence Index worksheet:	
<u> </u>		0	= Total Cover		Total % Cover of:	Multiply by:
0 - 1 - 101 - 1 0- 1	(Plot size: 15			1 1 1 2 2 2	BL species x 1 =	
Sapling/Shrub Stratum 1. NON &	(Plot size: 1,)	.)	×	111132	ACW species x 2 = AC species x 3 =	
- P					ACU species x 4 =	
3					PL species x 5 =	
				IC.	olumn Totals: (A)	(B)
					Prevalence Index = B/A =	
				Hy	ydrophytic Vegetation Indicators:	dia Manadalian
9		SI			1 - Rapid Test for Hydrophy 2 - Dominance Test is >50%	-
		0	= Total Cover		3 - Prevalence Index is ≤3.0	
	81				4 - Morphological Adaptatio	
Herb Stratum	3. ICL Plot size:	16	VI NE	hl II	data in Remarks or on a	
2 moretr no	na went 15	7	FA	KW	Problematic Hydrophytic Ve	egetation (Explain)
3. Onoclea s	sen9ibuls ,	15	ATT THE	CW '	Indicators of hydric soil and wetland hydrolo	ogy must
4. Eupatorium	a pertoliatum	10	N H		e present, unless disturbed or problematic.	
5.		-			efinitions of Vegetation Strata:	
7		-			ree - Woody plants, excluding vines, 3	in (7.6 cm) or more in
8				1 13.65	lameter.	an (1.6 day) de more m
		a				
					apling/Shrub- Woody plants, excluding	wydnau Iana than 3 in
12.					BH and greater than or equal to 3.28 ft	· I
			= Total Cover			
				l lu	lerb - All herbaceous (non-woody) plant	e renardless
Woody Vine Stratum	(Plot size:)			size, and woody plants less than 3.28	
1. none		/ }/				
2		-			J. J. M	
3				100	/oody Vin es - All woody vines greater t eight.	man 3.26 It in
5.						
6						
			= Total Cover			
					Hydrophytic	
				11	Vegetation /	/
					Present? Yes	No
Vegetation Remarks: (Include	photo numbers here or on a separate	e sheet)				
, , , ,)	· · · · · · · · · · · · · · · · · ·	- 0301).	1. 1		1 1 (. 0, 1
Wettand V	eg is dominant pa	obser.	the do	Milno	other testand ra	upic/tist
	V	- 3 - 0	-		•	1

Soil Profile Description: (Describe to the depth	needed to document	the indicator (or confirm th	ne absence	of indicators.)	
Depth Matrix (inches) Color (moist) %	Color (moist)	Redox Featur	res Type ¹	Loc ²	Texture	Remarks
$O-2$ $I(VI) 3/2$ I_{0}	Color (moist)				Siltlaim	Nemarks
7-110 10/18/41 75	104R446	15		-	Clayleam	:
210 107171 13	toty in		-	-	Citylan	
		= ====				
		-				
					37 <u></u> 1 (1	
	: :	÷		-	((
· · · · · · · · · · · · · · · · · · ·	-	~ ——			»———	
	-	* *			St.	
	-	: ====:		-		
·	-	-				
·	2	-			V/ <u></u>	
T- 6	4114 110 11 /	1010			2)	ALKING.
¹ Type: C=concentration, D=Depletion, RM=Reduc	ed Matrix, MS=Masked	d Sand Grains.			² Location: PL=Pore Lining, N	M=Matrix.
Hydric Soil Indicators:					Indicators for Problematic	Hydric Soils ³ :
Histosol (A1)	Dark Surface (S7)			2 cm Muck (A10) (MLR	A 147)
Histic Epipedon (A2)	Polyvalue Belo	-) (MLRA 147	, 148)	Coast Prairie Redox (A	
Black Histic (A3)	Thin Dark Surf	ace (S9) (MLR	A 147, 148)		Piedmont Floodplain Sc	oils (F19)
Hydrogen Sulfide (A4)	/Loamy Gleyed	1000000			(MLRA 136, 147)	
Stratified Layers (A5)	✓ Depleted Matri		•		Very Shallow Dark Surf	
2 cm Muck (A10) (LRR N)	Redox Dark St				Other (Explain in Rema	rks)
✓ Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Depleted Dark Redox Depress					
Sandy Mucky Mineral (S1) (LRR N,	Iron-Manganes		2) (LRR N, N	ILRA 136)	Na.	
MLRA 147,148)	Umbric Surface	e (F13) (MLRA	136, 122)			
Sandy Gleyed Matrix (S4)	Piedmont Floo					
Sandy Redox (S5)	Red Parent Ma	aterial (F21) (M	LRA 127, 14	7)		
Stripped Matrix (S6)						
³ Indicators of hydrophytic vegetation and wetle	and hydrology must be	present, unles	s disturbed o	or problema	tic.	
Restrictive Layer (if observed):	2					
Туре:				Hydri	/	
Depth (inches):				Soil Pres	sent? Yes	No
Soil Description Remarks:				-		
Mark I	3 and All.					
1, KE12 1.	Jana Alli					
						72

WETLAND DETERMINATION DATA	FORM - Eastern Mountains and Piedmont Region
Project/Site: Suth Carton	Sity/County: Sturco Sampling Date: 9/8/2017
Applicant/Owner:	State: Sampling Point: W005-PEM-CATMODZ-UF
Investigator(s):	Section, Township, Range: Pike Ind
Landform (hilslope, terrace, etc.):	Local relief (concave, convex, none): COYNCX Slope (%)
	14091 Long: -81, 420169 Datum: NA) 85
Soil Map Unit Name: 100 m 8 to 12	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year? Are Vegetation NO , Soil NO , or Hydrology NO significantly distu	Yes No (If no, explain in Remarks) rbed?
Are Vegetation 0 , Soil 0 , or Hydrology 0 naturally problem	
	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No ✓	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No	
Remarks: Upland data for WODS-PEM-CATMOD	2,
Data point taken in forestedarea	along perennial Stream.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B	· · · · · · · · · · · · · · · · · · ·
High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odo Oxidized Rhizosphere:	(
Water Marks (B1) Presence of Reduced	
Sediment Deposits (B2) Recent Iron Reduction	
Drift Deposits (B3) Thin Muck Surface (Ca	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Rem.	arks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9) Aquatic Fauna (B13)	Microtopographic Relief (D4) FAC-Neutral Test (D5)
	I NOTICULA FOST (55)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	/
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	No. N. Constitution
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe	ctions), if available:
Remarks:	
Wetland hydrology is not pro	esent.
	1)
	Δ.
	The state of the s

	Absoluto	Dominant Indicator	Deminance Test westsheets
1. Quincus rubra (Plot size: 30)	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2 Carya corditormis 3 Magnolia acuminata	10	FACU	Total Number of Dominant Species Across All Strata: (B)
5. 6.			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
7	40	≃ Total Cover	Prevalence Index worksheet: Total % Cover of:
Sapling/Shrub Stratum 1. Cornus Florida (Plot size: 15'	15	Y FACU	FACW species x 2 = FAC species x 3 = FACU species x 4 =
3. Fraxinus americand 4. Prunus Serotina	10	N AR	UPL species
7.			Prevalence Index = B/A =
8. 9. 10.			Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
Herb Stratum 1. Alliaria petiolata (Plot size: 5') <u>つつ</u>	= Total Cover	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2		Y FACU	Problematic Hydrophytic Vegetation ¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must
3	-		be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
10	 15	= Total Cover	Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
Woody Vine Stratum 1. Parthenocissus quinquefolia 2.	15	Y FAW	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
3 4			Woody Vines - All woody vines greater than 3.28 ft in height.
5	15	= Total Cover	,
			Hydrophytic Vegetation Present? Yes No
Vegetation Remarks: (Include photo numbers here or on a separate	sheet).		
Upland veg is dominant			2

	Matrix			Redox Features		
(inches)	Color (moist)	%	Color (moist)	%Type ¹	Loc ²	Texture Remarks
>16	104R312	100				Sill loam
					-	
		-		· :	-	÷
		60 				£
	·	2) 				
		s		s <u>s</u>	3 0	()()()
				-		
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	· ———	:		· • · · · · · · · · · · · · · · · · · ·		÷
- '				. — . — .	-	,
pe: C=conc	entration, D=Depletion,	RM=Reduced I	Matrix, MS=Masked	Sand Grains.		² Location: PL=Pore Lining, M=Matrix.
	The second secon		The state of the s	A .		
dric Soil Ind	icators:					Indicators for Problematic Hydric Soils ³ :
				\		0 March (A40) (88) 51 A 447)
Histosol (A	•	==	Dark Surface (S		47.440\	2 cm Muck (A10) (MLRA 147)
Histic Epip		=		w Surface (S8) (MLRA 1		Coast Prairie Redox (A16) (MLRA 147, 148)
Black Histi		-		ace (S9) (MLRA 147, 14	8)	Piedmont Floodplain Soils (F19)
_	Sulfide (A4)	2	Loamy Gleyed I			(MLRA 136, 147)
	ayers (A5)	=	Depleted Matrix			Very Shallow Dark Surface (TF12)
-	(A10) (LRR N)	=	Redox Dark Sui			Other (Explain in Remarks)
_	Below Dark Surface (A1	1) _	Depleted Dark S			
	Surface (A12)		Redox Depress		MI DA 40C)	
_	cky Mineral (S1) (LRR N 7 4 4 9)	٠,		e Masses (F12) (LRR N · (F13) (MLRA 136, 122		
MLRA 147	yed Matrix (S4)	-		Iplain Soils (F19) (MLR		
Sandy Red		200		terial (F21) (MLRA 127,		
Stripped M			Red Fareiit Wat	teriai (F21) (MERA 127,	147)	
= Outped W	atrix (00)			4 2		
	of hydrophytic vegetati	on and wetland	hydrology must be	present, unless disturbe	d or problema	tic.
3Indicators	vor (if about od):					
estrictive La	, (2222).				_ Hydri	/
strictive La					_ Soil Pre	sent? Yes No/_
estrictive La					_ Soil Pre	sent? Yes No V
estrictive Lag	hes):				Soil Pre	sent? Yes No
estrictive Lag	hes):	fric Soi	. Is not pr	esent.	_ Soil Pre	sent? Yes No
estrictive Lag	hes):	fric Soi	ils not pr	esent.	Soil Pre	sent? Yes No V
estrictive Lag	hes):	fric Soi	.Is not pr	esent.	Soil Pre	sent? Yes No <u>//</u>
estrictive Lag	hes):	fric Soi	.Is not pr	esent.	Soil Pre	sent? Yes No <u>//</u>
estrictive La Type: Depth (inch	hes):	fric Soi	ils not pr	esent.	Soil Pre	sent? Yes No
estrictive Lag	hes):	tric Soi	ils not pr	esent.	Soil Pre	sent? Yes No
estrictive La Type: _ Depth (inch	hes):	fric Soi	ils not pr	esent.	Soil Pre	sent? Yes No V
estrictive La Type: Depth (inch	hes):	fric Soi	ils not pr	esent.	Soil Pre	sent? Yes No
estrictive La Type: Depth (inch	hes):	fric Soi	ils not pr	esent.	Soil Pre	sent? Yes No
estrictive Lag	hes):	fric Soi	ils not pr	esent.	Soil Pre	sent? Yes No
strictive Lag	hes):	tric Soi	ils not pr	esent.	Soil Pre	sent? Yes No
strictive Lag	hes):	fric Soi	ils not pr	esent.	Soil Pre	sent? Yes No

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region	
Project/Site: South Canton City/County: Stark Co. Sampling Date: 9/8/2017	
Applicant/Owner: AEP Sampling Point: WOOL -PEM-LATZ	
nvestigator(s): Section, Township, Range: Richard	
Local relief (concave, convex, none): Slope (%)	
Subregion (LRR or MLRA): LRK Lat: 40.711594 Long: 81,416579 Datum: NAD 83	
Soil Map Unit Name: 56 - Sebring Sitt Jam 2 to 61. Stops, NWI classification: PEMIC	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks)	
Are Vegetation \underbrace{MO}_{A} , Soil \underbrace{MO}_{A} , or Hydrology \underbrace{MO}_{A} significantly disturbed? Are "Normal Circumstances" present? Yes \underbrace{MO}_{A} No	
Are Vegetation $\underbrace{\Pi()}_{}$, Soil $\underbrace{\Pi()}_{}$, or Hydrology $\underbrace{\Pi()}_{}$ naturally problematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.	5
Hydrophytic Vegetation Present? Yes V No	
Hydric Soil Present? Yes V No Is the Sampled Area within a Wetland? Yes V No	
Wetland Hydrology Present? Yes No	
	-
Wetland data point for WOOLE-PEM-CATZ.	
Data point taken within open transmission ROW.	
Data point within open and and the	
HYDROLOGY	
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required, check all that apply) Surface Soil Cracks (B6)	
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)	
High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)	
✓ Saturation (A3)	
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)	
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)	
Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2)	
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)	
Water-Stained Leaves (B9) Water-Stained Leaves (B9)	
Aquatic Fauna (B13) FAC-Neutral Test (D5)	
Field Observations:	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Surface Water Present? Yes V No Depth (inches):	
Water Table Present? Yes V No Depth (inches):	
Saturation Present? Yes Ves No Depth (inches): Wetland Hydrology Present? Yes No No Depth (inches):	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Description (1997)	
Wetland hydrology Indicators are AI, A3, C3, D2 and D5.	
Melling industral a motioning 2 me HI HS (C) 125 and 02.	

	201	Absolute	Dominant Indicator	Dominance Test Worksheet:
Tree Stratum	(Plot size: <u>30'</u>) <u>% Cover</u>	Species? Status	Number of Dominant Species That Are
1. <u>NM</u>			·	OBL, FACW, or FAC:
2				Total Number of Dominant Species
3				Across All Strata: (B)
4				Percent of Dominant Species That Are
5				OBL, FACW, or FAC:
6				
7				Prevalence Index worksheet:
	W 100 M		= Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum	(Plot size: 15	y		FACW species x2 =
1. nonc				FAC species x 3 =
2,				FACU species x 4 =
				UPL species x 5 =
				Column Totals: (A) (B)
				Prevalence Index = B/A =
				· · · · · · · · · · · · · · · · · · ·
8				Hydrophytic Vegetation Indicators:
			·	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
10			= Total Cover	3 - Prevalence Index is ≤3.0 ¹
	۱ –		2 7 5 6 6 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum	(Plot size:	_)		data in Remarks or on a separate sheet)
ypna x gigi	JCCI,	_ <u> </u>	Y 061	Problematic Hydrophytic Vegetation ¹ (Explain)
2. JUMCU CH	0500	- 40	A HAM	Musticutes as budge only and wattend budgeloov must
4 Persicular Sc	aittatum	- 12	7 760	I Indicators of hydnic soil and wetland hydrology must be present, unless disturbed or problematic.
5 Leersia onyzo		15	N 061	Definitions of Vegetation Strata:
6.				
7				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
				diameter.
11.				Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.				DBH and greater than or equal to 3.28 ft (1 m) tall.
		40	= Total Cover	
				Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum	(Plot size:	V		of size, and woody plants less than 3.28 ft tall.
1. NONC	(1 101 0120. <u>/</u>			
(1) 2				
3				Woody Vines - All woody vines greater than 3.28 ft in
				height.
6				
			= Total Cover	
				Hydrophytic
				│
				Present? Yes V No No
Vegetation Remarks: (Include p	ohoto numbers here or on a sena	arate sheet).		
- ·	· ·		1	1 1
Wettand vea 19	sdominant-p	olsses th	e arminar	nce test.
J			****	

Depth Matri			Redox Features		
(inches) Color (moist)	%	Color (moist)	%Type ¹	Loc²	Texture Remarks
D-2 104R 312					Sittlam
-1Ce N 4/	75	54R314			loam
		- p 1 2 1 1			10011
			*		
			÷		
			*		
			* :		: 1
	_:				
pe: C=concentration, D=Depletion	on, RM=Reduced	Matrix, MS=Masked	d Sand Grains.		² Location: PL=Pore Lining, M=Matrix.
dric Soil Indicators:					Indicators for Problematic Hydric Solls ³ :
	8			V.	
Histosol (A1)		Dark Surface (•	4461	2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2)			ow Surface (S8) (MLRA 147	, 148)	Coast Prairie Redox (A16) (MLRA 147, 148)
Black Histic (A3)		_ /	face (S9) (MLRA 147, 148)		Piedmont Floodplain Soils (F19)
Hydrogen Sulfide (A4)		√ Loamy Gleyed			(MLRA 136, 147)
Stratified Layers (A5)		Depleted Matri			Very Shallow Dark Surface (TF12)
2 cm Muck (A10) (LRR N)		Redox Dark Si			Other (Explain in Remarks)
_ Depleted Below Dark Surface ((A11)	Depleted Dark			
Thick Dark Surface (A12)		Redox Depres			
Sandy Mucky Mineral (S1) (LR	KN,	_	se Masses (F12) (LRR N, M	ILKA 136)	
MI DA 447 440\			e (F13) (MLRA 136, 122)	40\	
MLRA 147,148)			odplain Soils (F19) (MLRA 1	40;	
Sandy Gleyed Matrix (S4)			(504) (84) 54 407 44		
Sandy Gleyed Matrix (S4) Sandy Redox (S5)			aterial (F21) (MLRA 127, 14		
Sandy Gleyed Matrix (S4)			aterial (F21) (MLRA 127, 14		
Sandy Gleyed Matrix (S4) Sandy Redox (S5)	tation and wetlan	Red Parent Ma		7)	tic.
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget		Red Parent Ma		7)	tic.
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget		Red Parent Ma		7)	
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed):		Red Parent Ma		7) or problema	ic /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type:		Red Parent Ma		or problemate	ic /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):		Red Parent Ma		or problemate	de /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):		Red Parent Ma	present, unless disturbed o	or problemate	ic /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):		Red Parent Ma	present, unless disturbed o	or problemate	ic /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):		Red Parent Ma	present, unless disturbed o	or problemate	ic /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):		Red Parent Ma	present, unless disturbed o	or problemate	ic /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):	ects F	Red Parent Ma	present, unless disturbed o	or problemate	ic /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):	ects F	Red Parent Ma	present, unless disturbed o	or problemate	ic /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):	ects F	Red Parent Ma	present, unless disturbed o	or problemate	de /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):	ects F	Red Parent Ma	present, unless disturbed o	or problemate	de /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):	ects F	Red Parent Ma	present, unless disturbed o	or problemate	de /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) 3Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):	ects F	Red Parent Ma	present, unless disturbed o	or problemate	ic /
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic veget strictive Layer (if observed): Type: Depth (inches):	ects F	Red Parent Ma	present, unless disturbed o	or problemate	de /

Project/Site: Suth Canton City/Count	y: StarkCo. Sampling Date: 9/8/2017
Applicant/Owner:	State: Sampling Point: WOOL - PFW-CAT2-UP
Investigator(s):	ection, Township, Range: YIKC Tuy -
	relief (concave, convex, none):Slope (%)
Subregion (LRR or MLRA):	
Soil Map Unit Name: 50 - Sebring 51H loam, 0+6615	NWI classification: N/A
Are climatic/hydrologic conditions of the site typical for this time of year?	Yes No (If no, explain in Remarks)
Are Vegetation 0 , Soil 0 , or Hydrology 0 significantly disturbed? Are Vegetation 0 , Soil 0 , or Hydrology 0 naturally problematic?	Are "Normal Circumstances" present? Yes No
Are Vegetation 10, Soil 0, or Hydrology 10 naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sam	(If needed, explain any answers in Remarks.)
Summart of Findings - Attach site map showing same	ming point locations, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes No	/
Hydric Soil Present? Yes No Is the \$	Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: , , ,	IS.
Permarks: Upland data for wook-PEM-CATZ and Data point taken within maintained to	WOID-PEM-CATZ,
1) and a later of the same of the	LINGTON DOWN
Data point taken within maintained t	Jaipillezan i Lom.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Livin	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled	
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
	O L'- DW (DO)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Shallow Aquitard (D3) Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Shallow Aquitard (D3) Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches):	Shallow Aquitard (D3) Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Shallow Aquitard (D3) Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), in	Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No

Tree Stratum (Plot size:	Absolute) % Cover	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 1.	% Cover	Species? Status	Number of Dominant Species That Are
			OBL, FACW, or FAC:
2	-		Total Number of Dominant Species
3			Across Ali Strata:
4			
5			Percent of Dominent Species That Are OBL, FACW, or FAC: (A/B)
6.	*:		
7			Prevalence Index worksheet:
N	0	= Total Cover	Total % Cover of: Multiply by:
i=1			OBL species x 1 =
Sapling/Shrub Stratum 1. KUBUS CINEGHENIERUS 1. SubUS CINEGHENIERUS	_)		FACW species x 2 =
1. Kubus alleghenierbis	15	FACU	FAC species x 3 =
2			FACU species x 4 =
3		×	UPL species x5 =
4			Column Totals: (A) (B)
5			Prevalence Index = B/A =
6	-10)		Trevalence index - bin -
8			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation
10.	-		2 - Dominance Test is >50%
	D_	= Total Cover	3 - Prevalence Index is ≤3.01
5			4 - Morphological Adaptations (Provide supporting
Herb Stratum	-) 20	N/ 50(1)	data in Remarks or on a separate sheet)
2 Erichtites hieraciitolius	- 50	FACU	Problematic Hydrophytic Vegetation¹ (Explain)
3. Polystichum acrostichoides	- 10		¹ Indicators of hydric soil and wetland hydrology must
Achilled mille-folium	15	N FACTO	be present, unless disturbed or problematic.
5 Scharia Minidis	15	T THE	Definitions of Vegetation Strata:
6.			_
7.			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8			diameter.
9,			
11.			Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12	30		DBH and greater than or equal to 3.28 ft (1 m) tall.
	00	= Total Cover	
			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size: 30')		of size, and woody plants less than 3.28 ft tall.
1. NONC			
2.			
3,			Woody Vines - All woody vines greater than 3.28 ft in
4	101		height.
5	-012		
6-	0	- T-1-10	
		= Total Cover	-
			Hydrophytic
			Vegetation /
			Present? Yes No _\/_
Vegetation Remarks: (Include photo numbers here or on a separat	te sheet).		
Unless Lyan in 1			
Upland veg is dominant.			

Soil Profile De	scription: (Describe to	the depth ne	eded to document	the indicator o	r confirm th	e a bs en c e	of indicators.)	
Depth (inches)	Matrix Color (mojst)	%	Color (moist)	Redox Featur	es Type ¹	Loc ²	Texture	Remarks
0-3	104R312	100					Sittlaam	<u>-</u>
2-16	10VR43	100		T			Sittlam	
	10 11.110							
							×	
	-			* *			×	
	-	-		* *********			St	
*							× 	
	=======================================						(c 	
				÷ =====			··	
-							(V) 	
							((3 	
				-			55 	
	:							
¹ Type: C=conce	entration, D=Depletion,	RM=Reduced	Matrix, MS=Masked	Sand Grains.			² Location: PL=Pore Li	ning, M=Matrix.
Hydric Soil Ind	icators:						Indicators for Problem	natic Hydric Soils³:
Histosol (A	(1)		Dark Surface (S7)			2 cm Muck (A10)	(MLRA 147)
Histic Epip		5		ov Surface (S8)	(MLRA 147	, 148)	(lox (A16) (MLRA 147, 148)
Black Histi			Thin Dark Surf	ace (S9) (MLR	A 147, 148)	•	Piedmont Floodp	
Hydrogen \$	Sulfide (A4)		Loamy Gleyed	Matrix (F2)			(MLRA 136, 147)	
Stratified L	ayers (A5)		Depleted Matri	x (F3)			Very Shallow Dar	k Surface (TF12)
	(A10) (LRR N)		Redox Dark Su				Other (Explain in	Remarks)
	Below Dark Surface (A11)	Depleted Dark					
_	: Surface (A12) cky Mineral (S1) (LRR N	\$	Redox Depres		N (I PP NI M	I DA 136\		
MLRA 147		'	Umbric Surface			LIXA 130)		
	yed Matrix (S4)		Piedmont Floo			48)		
Sandy Red	lox (S5)		Red Parent Ma	aterial (F21) (MI	LRA 127, 14	7)		
Stripped M	atrix (S6)							
³ Indicators	of hydrophytic vegetation	n and wetland	I hydrology must be	present, unless	s disturbed o	r problema	tic.	
Restrictive La	yer (if observed):							
Type:						Hydri	c	. /
Depth (inch	nes):					Soil Pres	sent? Yes	No
Soil Description	on Remarks:							
oon besomptie		5 (L		1			
	Hydr	10 201	ls are not	prese	nt			
							7	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region
Project/Site: South Canton City/County: Stark Co Sampling Date: 911/2017
Applicant/Owner: State: OH Sampling Point: MART-PEM-CAT
nvestigator(s): Section, Township, Range: YKLTup
andform (hilslope, terrace, etc.): Local relief (concave, convex, none): CONCOVE Slope (%)
Subregion (LRR or MLRA): Lat: 40,713045 Long: -81,415826 Datum: NAD 83
Soil Map Unit Name: GdB-Gilpin SiH loam, 3 to 8 / Slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks)
Are Vegetation \(\bigcap \) Soil \(\bigcap \) O \(\bigcap \) or Hydrology \(\bigcap \) significantly disturbed? \(\bigcap \) Are "Normal Circumstances" present? \(\bigcap \) Yes \(\bigcap \) No \(\bigcap \)
re Vegetation
Summart or rindings - Attach site map showing sampling point locations, transects, important leatures, etc.
Hydrophytic Vegetation Present? Yes No
Hydric Soil Present? Yes No Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No
Dottu point taken in wooded area near Intermittent Stream.
IYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) Sparsely Vegetated Concave Surface (B8)
/ High Water Table (A2) / Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Geomorphic Position (D2) Shellow Assistant (D3)
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)
Aquatic Fauna (B13) FAC-Neutral Test (D5)
Field Observations:
75"
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes V No Depth (inches): Wetland Hydrology Present? Yes V No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Describe Necorded Data (stream gauge, monitoring well, aerial produs, previous inspections), il available.
Remarks:
Wetland hydrology Indicators are AI, A3, C3, D2 and D5.
Trousing Information and The State of the St
**

1		Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size:) <u>% Cover</u>	Species? Status	
1. NMe				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
			*	Total Number of Dominant Species
3.				Across All Strata: (B)
4				Percent of Dominant Species That Are
5,			· · · · · · · · · · · · · · · · · · ·	OBL, FACW, or FAC:
6,				
7		- 36		Prevalence Index worksheet:
		4)	= Total Cover	Total % Cover of: Multiply by:
	IC,			OBL species x 1 =
Sapling/Shrub Stratum	(Plot size: 15'	_) =	1 500	FACW species x 2 =
1. Alen rub	rum		Y Fac	FAC species x 3 =
2,		_0_		FACU species x 4 =
3				UPL species
42		=:		Column Totals: (A) (B)
5		-/.5		Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
10.				2 - Dominance Test is >50%
			= Total Cover	3 - Prevalence Index is ≤3.01
	=1			4 - Morphological Adaptations (Provide supporting
Herb Stratum	(Plot size: 5'	_)	. /	data in Remarks or on a separate sheet)
Leer'SIGN	rainica	_ 75	_ Y FAUN	Problematic Hydrophytic Vegetation ¹ (Explain)
2,	0			
				I Indicators of hydric soil and wetland hydrology must
)======				be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
V.====================================			·	
				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
		—:———:	***************************************	diameter.
9,			·	
0,			*	Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.				DBH and greater than or equal to 3.28 ft (1 m) tall.
		15	= Total Cover	
	(Plot size: 30)			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum		ر_		of size, and woody plants less than 3.28 ft tall.
1. none		-,:	,	
				Woody Vines - All woody vines greater than 3.28 ft in
				height.
				neign.
6.			-	
×		-6	= Total Cover	a
				Hydrophytic
			1	Vegetation /
				Present? Yes V No No No
	CAL THAT A PRODUCTION OF THE P	5.		
Vegetation Remarks: (Incl.	of veg. 15 domina	rate sheet).	1	do no une o test
Molallan	of year 15 damina	M- D1	15565 the	NOWN IT LOT THE TOTAL
Mollan	a very to ordina	and L	200 2	
				u.
5				

Depth Matrix	Redox Features		
(inches) Color (moist) %		pe ¹ Loc ²	Texture Remarks
-2 IOVR 314 10	0		Silt laam
-10 10VR411 75	5 TOUR 3/10 25		lodm
10 10 11 11	2 10 11/014 =0		TOMIT
			Y
			22
	— ;———— ;————		\$0 <u></u>
1			K
			*::
pe: C=concentration, D=Depletion, RM=Re	educed Matrix, MS=Masked Sand Grains.		² Location: PL=Pore Lining, M=Matrix.
<u>"</u>			
Iric Soll Indicators:			Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2)	Polyvalue Below Surface (S8) (MLF	RA 147, 148)	Coast Prairie Redox (A16) (MLRA 147, 148)
Black Histic (A3)	Thin Dark Surface (S9) (MLRA 147		Piedmont Floodplain Soils (F19)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	•	(MLRA 136, 147)
Stratified Layers (A5)	Depleted Matrix (F3)		Very Shallow Dark Surface (TF12)
2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6)		Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)		,
Thick Dark Surface (A12)	Redox Depressions (F8)		
Sandy Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LR	R N. MLRA 136)	
MLRA 147,148)	Umbric Surface (F13) (MLRA 136,		
Sandy Gleyed Matrix (S4)	Piedmont Floodplain Soils (F19) (M		
Sandy Redox (S5)	Red Parent Material (F21) (MLRA 1		
Stripped Matrix (S6)		•	
	Microsophic Management Control of		
*Indicators of hydrophytic vegetation and	wetland hydrology must be present, unless distu	irbed or problema	atic.
strictive Layer (if observed):			
Туре:		Hydr	ric /
Depth (inches):		Soil Pre	esent? Yes No
			
I Description Remarks:	0.		
Meets	F2		
1 RCIS	, 15°		
	a		

WETLAND DETERMINATION DATA FORM - Easte	
Project/Site: Suth Canton City/County: St	ark Co. Sampling Date: 9 11 201
Applicant/Owner:	State: Sampling Point: W007-PEM-CAT2-UF
Investigator(s): Section, To	ownship, Range: PIKE TWP
171.071	oncave, convex, none): Slope (%)
Subregion (LRR or MLRA): Lat: 40, 713053	Long: _81.415920 Datum: NAD 83
Soil Map Unit Name: 500-51pm 51H 100 m 510 0 1 51005	NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes _ Are Vegetation	No (If no, explain in Remarks) Are "Normal Circumstances" present? Yes No
Are Vegetation 10, Soil 10, or Hydrology 10 significantly disturbed? Are Vegetation 10, Soil 10 , or Hydrology 11 naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling po	
Hydrophytic Vegetation Present? Yes No	/
	d Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: Upland data for WOO7-PEM-CATZ.	
Data point taken in Forested area.	
UVPPOLOGY	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) True Aquatic Plants (B14)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6	7
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
	Wetland Hydrology Present? Yes No
Saturation Present? Yes NoV_ Depth (Inches): (includes capillary fringe)	Wetland Hydrology Present? Tes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	e:
	6
Remarks: Wetland hydrology not present.	
	₹
	į.
R	

Tree Stratum (Plot size: 30'	Absolute	Dominant Indicator	Dominance Test worksheet:
	_) <u>% Cover</u>	Species? Status	Number of Dominant Species That Are
· Frunus Serotina	20	Y FACY	OBL, FACW, or FAC:
2 Quercus bicolor	_ 5_	FAW	L 4
3,		1	Total Numbar of Dominant Species Across All Strata: (B)
4	2		
			Percent of Dominant Species That Ara
5	+		OBL, FACW, or FAC:
6		· · · ·	
• 75	-75	T.10	Prevalence Index worksheet:
	<u> 20</u>	= Total Cover	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15			OBL species x 1 = FACW species x 2 =
1. Sasatyas albaum	-, 19	N FA(L)	FAC species x 3 =
2. Fraxinus americana	10	FACT	FACU species x 4 =
3. Rubus allegheniensts	20	TACT	UPL species x 5 =
4 Oller CUS MILORA	15	N FACO	Column Totals: (A) (B)
5 Acer rubrium	15	N FA	
6. RosamuHitlard	70	VAFAU	Prevalence Index = B/A =
7.			
8			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation
10	- OIO		2 - Dominance Test is >50%
	10	= Total Cover	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5	K 0		4 - Morphological Adaptations ¹ (Provide supporting
W. N. A. P.	-)		data in Remarks or on a Separate Sheet)
		-	Problematic Hydrophytic Vegetation ¹ (Explain)
2			1 Indicators of hydric Soil and wetland hydrology must
4.			be present, unless disturbed or problematic.
5.			Definitions of Vegetation Strata:
6.			4
7.			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
в			diameter.
9			
10	-		
11	-21		Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.		-T-1-10	DBH and greater than or equal to 3.28 ft (1 m) tall.
		= Total Cover	
			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size: 30')		of size, and woody plants less than 3.28 ft tall.
1. 1000			2, 2, 3, 3, 3, 3, 7, 3
2.	=o\:		
3,			Woody Vines - All woody vines greater than 3.28 ft in
4.			height.
5,			
6,		- T . 10	
		= Total Cover	
			Hydrophytic
			Vegetation ,
			Present? Yes No V
Vegetation Remarks: (Include photo numbers here or on a separate			
Upland veg is domin	1		_
Upland veg is domin	WIII.		
- 1			
			II.

Depth	Matrix			Redox Feature	es		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
V-16	104R 3/2	190					Sillbam
							24 availant Disposa Lining M-Matrix
Type: C=conce	entration, D=Depletion,	RM=Reduced	Matrix, MS=Masked	Sand Grains.			² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Stratified L 2 cm Muck Depleted B Thick Dark Sandy Muc MLRA 147 Sandy Gley Sandy Red Stripped M	sedon (A2) c (A3) Sulfide (A4) sayers (A5) c (A10) (LRR N) Selow Dark Surface (A1 c Surface (A12) cky Mineral (S1) (LRR N c,148) yed Matrix (S4) dox (S5)		Dark Surface (S Polyvalue Below Thin Dark Surfa Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi Iron-Manganese Umbric Surface Piedmont Flood Red Parent Mat	v Surface (S8) ce (S9) (MLRA Matrix (F2) (F3) face (F6) Surface (F7) ons (F8) Masses (F12 (F13) (MLRA plain Soils (F1) (LRR N, N 136, 122) 9) (MLRA 1 LRA 127, 14	ILRA 136) 48) 7)	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
estrictive La	yer (if observed):					Ï	
Type: _ Depth (inch	hes):		=		-	Hydr Soil Pre	. /
oil Description	on Remarks:	Sulsn	at preser	H.			ě
	, 0100		*				

WETLAND DETERMINATION DATA FORM - Easte	rn Mountains and Piedmont Region
Project/Site: South Canton City/County: St	ark Co Sampling Date: 9111 2017
Applicant/Owner:	State: Sampling Point: WOOR - PEM-CATZ
	wnship, Range: PIKE Tub
Landform (hilslope, terrace, etc.): Local relief (cc	oncave, convex, none): CONCOVC Slope (%)
Subregion (LRR or MLRA): Lat: 40, 712,198	Long: -81.4(6012 Datum: NAD 85
Soil Map Unit Name: GdC-Gilpin SiH lam - 8 to 15'. Sleps	NWI classification: NWI
Are climatic/hydrologic conditions on the site typical for this time of year?	No (If no, explain in Remarks)
Are Vegetation 0 , Soil 0 , or Hydrology 0 significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation \(\frac{1}{1} \ightrigota \), Soil \(\frac{1}{1} \ightrigota \), or Hydrology \(\frac{1}{1} \ightrigota \) naturally problematic?	(If needed, explain any answers in Remarks,)
SUMMARY OF FINDINGS - Attach site map showing sampling po	oint locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No Is the Sampled	Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks:	
h bettand and the two lines- Dem-CATZ.	
Data point taken a edge of transmiss	in line Day and at Intermittent
Data point taken a eage of horsinis	19.1 CHEKON WICH ~
Stream.	#
000 000 000	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	x:
Remarks:	102 00 100
Remarks: Wetland hydrology Indicators are AZ	b, Co, Dianol Do
it is a second of the second o	

Tree Stratum (Plot size: 301	Absolute	Dominant Indicator	Dominance Test worksheet:
) % Cover	Species? Status	Number of Dominant Species That Are
1. Acer rubrum	_ 10_	THU.	OBL, FACW, or FAC:
2			
3.			Total Number of Dominant Species Across All Strata: (B)
4,			
			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5			OBL, FACW, OF FAC.
6			Prevalence Index worksheet:
7	10	= Total Cover	Total % Cover of: Multiply by:
,I			OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15	_)		FACW species x 2 =
1 NMe			FAC species x 3 =
2			FACU species x 4 =
3			UPL species x 5 =
4		× ====================================	Column Totals: (A) (B)
5			Providence below - R/A -
6.			Prevalence Index = B/A =
7,	- x		Hydrophytic Vegetation Indicators:
8 9.			1 - Rapid Test for Hydrophytic Vegetation
10.		2 12 1	2 - Dominance Test is >50%
		= Total Cover	3 - Prevalence Index is ≤3.0 ¹
<u>~1</u>	Ŭ		4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:	-) 12	100	data in Remarks or on a separate sheet)
leersia oryzolas	- 16	77 681	Problematic Hydrophytic Vegetation¹ (Explain)
2 Pensa Virginica		THE THE	All and the state of the state
4 Panicum Crindestinum	- 40	Y FACE	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5 Pensicana Sagittatum	= 	7	Definitions of Vegetation Strata:
6.	- 10	4 001	Delimitaria de regulation estata.
7.			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8.	*		diameter.
9.			
10			
11	=======================================		Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12	- - 		DBH and greater than or equal to 3.28 ft (1 m) tall:
	<u>(B)</u>	= Total Cover	
			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size: 201	À:		of size, and woody plants less than 3.28 ft tall.
1. None			SIZES, UNE WOODY PLANE 1000 U.S. SIZES K. ILLINI
2			
3,	=-0		Woody Vines - All woody vines greater than 3.28 ft in
4.			height.
5			
6			
		= Total Cover	
			Hydrophytic
			Vegetation
			Present? Yes \ No
Vegetation Remarks: (Include photo numbers here or on a separa	ate sheet).		
1 1 . 1 . 1		b 1	
wetland vegis dominant	passes.	the domin	ance test
J		232 000 7111	
			<
			I I

Depth	Matrix			Redox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²		Remarks
1-a	10VR 3/4	<u> 100 </u>		<u> </u>			Sittlaum	
-16	1042 4/1	90	104R316	10			loam	
			10 11 12 1				NE 4	
		-	-	·		-		
			-					
		-	-				:: : 	
		- 					s, 	
						-	:	
							R(
			· i=======				: : 	
			# : 					
e: C=conc	entration, D=Depletion,	RM=Reduc	ed Matrix, MS=Masked	Sand Grains.			² Location: PL=Pore Lining, M	=Matrix.
l-ia Cail Ind	instance						Indicators for Problematic H	vdric Soils ³
ric Soil Ind	icalurs.						indicatora for i robicinatic n	yone della :
Histosol (A	\1)		Dark Surface (S	S7)			2 cm Muck (A10) (MLRA	147)
Histic Epip	edon (A2)		Polyvalue Belo	w Surface (S8)	(MLRA 147	, 148)	Coast Prairie Redox (A1	6) (MLRA 147, 148)
Black Histi	ic (A3)		Thin Dark Surfa	ace (S9) (MLRA	147, 148)		Piedmont Floodplain Soil	ls (F19)
	Sulfide (A4)		Loamy Gleyed	Matrix (F2)			(MLRA 136, 147)	
Stratified L	ayers (A5)		Depleted Matrix	x (F3)			Very Shallow Dark Surfa	ce (TF12)
2 cm Muck	(A10) (LRR N)		Redox Dark Su	rface (F6)			Other (Explain in Remark	ks)
Depleted E	Below Dark Surface (A1	11)	Depleted Dark	Surface (F7)				
	Surface (A12)		Redox Depress	sions (F8)				
	cky Mineral (S1) (LRR	N,	Iron-Manganes	e Masses (F12	(LRR N, M	LRA 136)		
Sandy Mud					126 422\			
Sandy Muc MLRA 147	',148)		Umbric Surface	e (F13) (MLRA	130, 122)			8;
MLRA 147	', 148) yed Matrix (S4)		Umbric Surface			48)		8.
MLRA 147	yed Matrix (S4)		: :	dplain Soils (F1	9) (MLRA 1			8.
MLRA 147 Sandy Gle	yed Matrix (S4) dox (S5)		Piedmont Floor	dplain Soils (F1	9) (MLRA 1			8.
MLRA 147 Sandy Gley Sandy Red Stripped M	yed Matrix (S4) dox (S5) latrix (S6)	ion and well	Piedmont Flood	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7)	tic.	ž.
MLRA 147 Sandy Gle Sandy Red Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat	ion and wetl	Piedmont Floor	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7)	tic.	*
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6)	ion and wetl	Piedmont Flood	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) r problema		2
MLRA 147 Sandy Gle Sandy Red Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat	ion and wetl	Piedmont Flood	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	х -
MLRA 147 Sandy Gle Sandy Rec Stripped M ³ Indicators trictive La	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed):	ion and wetl	Piedmont Flood	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) r problema	ic /	No
MLRA 147 Sandy Glet Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed):	ion and wetl	Piedmont Flood	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed):	ion and wetl	Piedmont Flood	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):		Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):	ion and wetl	Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):		Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):		Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):		Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):		Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	_ No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):		Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):		Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):		Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No
MLRA 147 Sandy Gle Sandy Rec Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetat yer (if observed): hes):		Piedmont Flood Red Parent Ma and hydrology must be	dplain Soils (F1 terial (F21) (ML	9) (MLRA 1 4 RA 127, 14	7) or problema Hydr	ic /	No

WETLAND DETERMINATION DATA FORM - E	
Project/Site: Suth Canton City/County:	Stark Co Sampling Date: 911207
Applicant/Owner:	State: Sampling Point: WOOR-PEM-CAT2-UPL
	ion, Township, Range: PIKCTUP
	elief (concave, convex, none): (()) V(X) Slope (%) ().
Subregion (LRR or MLRA): Lat: 40, 712,146	Long: -81,4(6007 Datum: NAD 83
Soil Map Unit Name: 50 - (711pin) H 100m, 0 to 131.3	NWI classification: N/A
N ₊ N ₁	Yes No (If no, explain in Remarks) Are "Normal Circumstances" present? Yes No
Are Vegetation \(\begin{align*} \begin{align*} \text{NO} & \text{Soil} & \text{NO} & \text{or Hydrology} & \text{NO} & \text{significantly disturbed?} \\ \text{Are Vegetation} & \text{NO} & \text{Soil} & \text{NO} & \text{or Hydrology} & \text{NO} & \text{naturally problematic?} \end{align*}	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampli	· · · · · · · · · · · · · · · · · · ·
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No Visite Sail	mpled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Data point taken at edgestransmis	sionline ROW. in wooded area.
HYDROLOGY	^
	Coordon Indicator (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required, check all that apply)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living F	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soi	· · ·
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No V
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a	/ailable:
Remarks:	
Welland hydrology is not p	resent.
	3
v.	

Tree Stratum (Plot size: 30)	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test workSheet:
A. a. 14. 1041110	10	V DV.	Number of Dominant Species Thet Are
		TACL	OBL, FACW, or FAC:
2 Frunus serotina	10_	T HOW	Total Number of Dominant Species
3		- 1	Across All Strata:
4			
			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5			OBL, FACW, or FAC:
6			
7	- 70	= Total Cover	Prevalence index worksheet:
		= i otai Cover	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15	V.		OBL species x1 =
1. Cornus florida (Plot size: 10	-/ IS	W DO(1)	FACW species x 2 = FAC species x 3 =
2 Acer rubrum	- <u>18</u> -	FAC	FACU species x 4 =
3. Franzicka alnus.	15	FA	UPL species x 5 =
4. Kubus allegheniensis	TE	FACI	Column Totals: (A) (B)
5		FACO	
6.			Prevalence Index = B/A =
7.			
8,	5		Hydrophytic Vegetation Indicators:
9.			1 - Rapid Test for Hydrophytic Vegetation
10			2 - Dominance Test is >50%
	55	= Total Cover	3 - Prevalence Index is ≤3.0 ¹
F1	•		4 - Morphological Adaptations (Provide supporting
Herb Stratum . Plot size: 5	-) 5	1	data in Remarks or on a separate sheet)
1 Panicum clardestinum		Y HAC	Problematic Hydrophytic Vegetation ¹ (Explain)
2			
3			Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			
7.			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8,			diameter.
9			
10			
11	70		Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
12.		= Total Cover	DBH and greater than or equal to 5.26 ft (1 m) tall.
		- Total Cover	
a g			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum , (Plot size: 30	ì		of size, and woody plants less than 3.28 ft tall.
1 Toxicodendron vadicans.	-15	V Fac	
2 Parthenocissusaumquetolia	10	FACU	
3.		112444-2	Woody Vines - All woody vines greater than 3.28 ft in
4.	-0, -00/2		height.
5.			1.00
6.	- 05		
	25	= Total Cover	B
			Hydrophytic
			Vegetation
	70		Present? YesNo
Warned Barranton (tradicional Armondo)	to ak = =!\		
Vegetation Remarks: (Include photo numbers here or on a separa	te sneet).		
Upland veg is dominant.			
object of the standing like			

Depth Matrix Redox Features (Inches) Color (molat) % Type' Loc' Texture Remark Type: C-concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Texture Remark Type: C-concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Texture Remark Type: C-concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Texture Remark Total Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Texture Remark Type: C-concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Total Canada Sand Grains. Total Can	ks
ype: C=concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. **Jocation: PL=Pore Lining, M=Matrix (rd) (rd) (rd) (rd) (rd) (rd) (rd) (rd)	
Indicators for Problematic Hydric Histosol (A1)	
dric Soil Indicators: Histosol (A1)	
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (ML Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Piedmont Floodplain Soils (F18 Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Hydric Depth (inches): Yes	
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (ML Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Piedmont Floodplain Soils (F18 Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Hydric Depth (inches): Yes	
Aric Soil Indicators: Histosol (A1) Histosol (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) MIRA 147,148) Sandy Redox (S5) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Black Histic (A1) Dark Surface (S7) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F18 (MLRA 136, 122) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Stripped Matrix (S6) Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Depth (inches): Description Remarks:	
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (ML Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Piedmont Floodplain Soils (F18 Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Hydric Depth (inches): Yes	
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (ML Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Piedmont Floodplain Soils (F18 Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Inn-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Hydric Depth (inches): Soil Present? Yes	
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (ML Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Piedmont Floodplain Soils (F18 Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Hydric Depth (inches): Yes	
Histosol (A1)	х.
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) Pledmont Floodplain Soils (F15) (MLRA 147, 148) Pledmont Floodplain Soils (F15) (MLRA 136, 147) Very Shallow Dark Surface (TF Other (Explain in Remarks) Other (Explain in Remarks) Umbric Surface (F7) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) Plooding To the Remarks: Hydric Soil Present? Yes	Soils³:
Black Histic (A3)	DA 447 440\
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Pepleted Matrix (F3) Depleted Below Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, Ion-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 127, 147) Stripped Matrix (S6) Jandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Spectinition Remarks: Description Remarks:	•
Stratified Layers (A5)	,
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Hydric Depth (inches): Yes	40)
Depleted Below Dark Surface (A11)	12)
Thick Dark Surface (A12)	
Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148)	
MLRA 147,148)	
Sandy Gleyed Matrix (S4)	
Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if observed): Type: Hydric Depth (inches): Soil Present? Yes	
Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Hydric Depth (inches): Soil Present? Yes	
Stripped Matrix (S6) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes	
Type: Hydric Depth (inches): Soil Present? Yes	
Type: Hydric Depth (inches): Soil Present? Yes	
Depth (inches): Soil Present? Yes	
Hydric Soils not present	No
Hydric Soils not present	
ē	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region Canton City/County: StarkCo Project/Site: Sampling Point: IN 009 -Applicant/Owner: Section, Township, Range: DINC Investigator(s): Slope (%) Local relief (concave, convex, none): Landform (hilslope, terrace, etc.): Long: - 81,414770 Subregion (LRR or MLRA) NWI classification: Soil Map Unit Name: Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in Remarks) No significantly disturbed? Are "Normal Circumstances" present? Are Vegetation \bigcap , Soil \bigcap , or Hydrology (0, Soil), or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) Are Vegetation SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area within a Wetland? Hydric Soil Present? Wetland Hydrology Present? Wetland data point for woon-PEM-CATZ Data point taken with in transmission line ROW. **HYDROLOGY** Secondary Indicators (minimum of two required) Wetland Hydrology Indicators: Surface Soil Cracks (B6) Primary Indicators (minimum of one is required, check all that apply) Sparsely Vegetated Concave Surface (B8) Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Drainage Pattems (B10) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Dry-Season Water Table (C2) Water Marks (B1) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Sediment Deposits (B2) Saturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Drift Deposits (B3) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Other (Explain in Remarks) Geomorphic Position (D2) Iron Deposits (B5) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Microtopographic Relief (D4) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Aquatic Fauna (B13) Field Observations: Depth (inches): Surface Water Present? Depth (inches): Water Table Present? Wetland Hydrology Present? Saturation Present? Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Wetland hydrology Indicators are C3, D2 and D5.

Tree Stratum	(Plot size: 30)	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. None				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2,,				Total Number of Dominant Species
3				Across All Strata: (B)
5,				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6.				
7			= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by:
2	(Plot size: 15			OBL species x 1 =
Sapling/Shrub Stratum 1. NWL	(Plot size: \ \)			FACW species x 2 = FAC species x 3 =
2.				FACU species x 4 =
3				UPL species
5				Committees.
6				Prevalence Index = B/A =
7. 8.				Hydrophytic Vegetation Indicators:
9.				1 - Rapid Test for Hydrophytic Vegetation
10		-0	= Total Cover	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
	51			4 - Morphological Adaptations ¹ (Provide supporting
1. Covex Justid	(Plot size: 5	一 ['] め	V Obl	data in Remarks or on a separate sheet) ——————————————————————————————————
2. SUPUS apper	mus	15	N FACE	(Lipelly
	us-galli Ustinum	- 12	N HAC	Indicators of hydric soil and wetland hydrology must
5. Juncus Ettus	asimarri	$-\frac{10}{10}$	T FACE	be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6.				
7, 8.				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
9			==	
10				Parity West Washington avaluating visual less than 2 in
12				Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
		700	= Total Cover	
	201			Herb - All herbaceous (non-woody) plants, regardless
1. NOOC	(Plot size: 30')		of size, and woody plants less than 3.28 ft tall.
2				
3.			==	Woody Vines - All woody vines greater than 3.28 ft in
5				height.
6.		- 0	= Total Cover	
				Hydrophytic Vegetation
				Present? Yes No
Vegetation Remarks: (Include pho	to numbers here or on a sena	arate sheet).		
Lielland War	is dominant-p	asses the	dominance	test.
welling veg	12 MONNIAMINE	WILL CHEN	, ((4))	

	Matrix			Redox Features		
(inches)	Color (moist)	%	Color (moist)	% _ · _ Type¹ _	Loc ² Texture	Remarks
)-2	10VR 314	100			Sittleam	
-1(0	'N 4/	70	15UR 44	30	ladm	
10			no proper			
		05				
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)————	1)(
						·
no: C-conco	entration D=Depletion	PM-Poduo	ed Matrix, MS=Masked	Sand Grains	² Location: PL=Pore Lin	ing M=Matrix
pe. C-conce	muation, D-Depletion,	KIVI-Neduce	ed Matrix, MS-Masked (zario Grains.	LOCATION. 1 L-1 DIE LIN	ing, M-Maula.
dric Soil Indic	cators:				Indicators for Problem	atic Hydric Solls ³ :
Histosol (A1	1)		Dark Surface (S	7)	2 cm Muck (A10) (MLRA 147)
Histic Epipe				. , / Surface (S8) (MLRA 147, 1		ox (A16) (MLRA 147, 148)
Black Histic				ce (S9) (MLRA 147, 148)	Piedmont Floodpla	
Hydrogen S			Loamy Gleyed N		(MLRA 136, 147)	(
Stratified La	· ·		Depleted Matrix		Very Shallow Dark	Surface (TF12)
-	(A10) (LRR N)		Redox Dark Sur	· ·	Other (Explain in F	
-	elow Dark Surface (A1	11)	Depleted Dark S		Still (Explain iii)	,
-	Surface (A12)	''	Redox Depressi			
_	ky Mineral (S1) (LRR I	N.		: Masses (F12) (LRR N, MLI	RA 136)	
MLRA 147,		-,		(F13) (MLRA 136, 122)	•	
	ed Matrix (S4)			plain Soils (F19) (MLRA 148)	
Sandy Redo			-	erial (F21) (MLRA 127, 1 47)		
Stripped Ma						
	(==,	Paranta and a second			cushismatis	
3 _{1-di-et-es} -	- Character start and a second set	on and wella	and nydrology must be p	resent, unless disturbed of	noblematic.	
	of hydrophytic vegetati					
strictive Lay	of hydrophytic vegetati					
strictive Lay	ver (if observed):		ı		Hydric	
strictive Lay	ver (if observed):		ı		Hydric Soil Present? Yes	No
strictive Lay Type: Depth (inche	ver (if observed): es):				_	No
strictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:		1		_	No
strictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 :	ı		_	No
strictive Lay Type: Depth (inche	ver (if observed): es):	F2 ;			_	No
strictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 ;	- I		_	No
strictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 ;	- T		_	No
strictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 ;	T		_	No
estrictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 ;			_	No
estrictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 ;	e e		_	No
strictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 ;			_	No
strictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 ;			_	No
strictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 ;			_	No
trictive Lay Type: Depth (inche	ver (if observed): es): n Remarks:	F2 ;			_	No

WETLAND DETERMINATION DATA FORM - Eastern	Mountains and Piedmont Region
Project/Site: South Canton City/County: Stark	Sampling Date: 9 11 12017
Applicant/Owner:	State: OH Sampling Point: W009-PEM-CAT2-V
	nip, Range: PIKe Two
C 00	ve, convex, none): ((MVEX Slope (%) 0)
Subregion (LRR or MLRA), Lat: 40, 712143	Long: -81, 414668 Datum: NAD83
Soil Map Unit Name: GaC-Gilvin Sittloam 8+015/5/5/0005	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	No (If no, explain in Remarks)
Are Vegetation NO , Soil NO , or Hydrology NO significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation $\frac{n_0}{n_0}$ Soil $\frac{n_0}{n_0}$, or Hydrology $\frac{n_0}{n_0}$ naturally problematic?	(If needed, explain any answers in Remarks,)
SUMMARY OF FINDINGS - Attach site map showing sampling point	locations, transects, important features, etc.
/ 1	
Hydrophytic Vegetation Present? Yes No	. /
Hydric Soll Present? Yes No Is the Sampled Are	a within a Wetland? Yes No
Wetland Hydrology Present? Yes No/_	
Remarks:	50
Upland data to W009-PEM-CAT2	
Data point taken with transmission line	Row
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aenal Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	/
	Netland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	
Wetland hydrology is not present.	
, ,	

Tree Stratum (Plot size:	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. None		Opecies: Otatus	Number of Dominent Species That Are OBL, FACW, or FAC: (A)
2.			
3			Total Number of Dominant Species Across All Strate: (B)
,,			(0)
4	=====	*====	Percent of Dominent Species That Are OBL, FACW, or FAC: (A/B)
5. 6.			OBL. FACW, OF FAC.
7.			Prevalence Index worksheet:
		= Total Cover	Total % Cover of: Multiply by:
15	8		OBL species x 1 =
Sapling/Shrub Stratum 1. Rubus allegheniensis	-15	VI FACU	FACW species x 2 = FAC species x 3 =
2			FACU species x 4 =
3.			UPL species x 5 =
4			Column Totals: (A) (B)
5			Dravelance Index = B/A =
7			Prevalence Index = B/A =
8.			Hydrophytic Vegetation Indicators:
9.			1 - Rapid Test for Hydrophytic Vegetation
10	10		2 - Dominance Test is >50%
	15	= Total Cover	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size:	ĵ.		data in Remarks or on a separate sheet)
1. Dactylis glomerate.	20_	V Fact.	Problematic Hydrophytic Vegetation¹ (Explain)
2 Solidaay Canadensis	_ 15_	N' Facl	
3. Achilled milletglium	_ 20_	1 tacu	Indicators of hydric soil and wetland hydrology must
5. Errichties hieracii folius	= 10	T fact	be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6.		N TAU	Definitions of Vegetation Strata.
7.	= ====		Tree - Woody plants, excluding vines, 3 In. (7.6 cm) or more in
8			diameter.
9.			
10			
11			Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
	90	= Total Cover	
Woody Vine Stratum (Plot size: 30)			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum 1. NW C)		of size, and woody plants less than 3.28 ft tall.
2			
3.			Woody Vines - All woody vines greater than 3.28 ft in
4			height.
5			
6,		= Total Cover	
		10101 00101	
			Hydrophytic
			Vegetation
		×	Present? Yes No V
Vegetation Remarks: (Include photo numbers here or on a separ	ate sheet).		21
Upland veg is dominant			

Depth Matrix	Redox Features	Loc ²	Tardina	Remarks
(inches) Color (moist) 104 43	Color (moist) % Type ¹	Loc	Silt	Remarks
		-		
			×	
			S	
			·	
		•	8/ 	
				C
pe: C=concentration, D=Depletion, RM=	Reduced Matrix, MS=Masked Sand Grains.		² Location: PL=Pore Li	ning, M=Matrix.
Irlc Soil Indicators:			Indicators for Proble	matic Hydric Soils ³ :
Histosol (A1)	Dark Surface (S7)		2 cm Muck (A10)	(MLRA 147)
Histic Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 1			dox (A16) (MLRA 147, 148)
Black Histic (A3)	Thin Dark Surface (S9) (MLRA 147, 14	8)	Piedmont Floodp	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		(MLRA 136, 147)	
Stratified Layers (A5)	Depleted Matrix (F3)		Other (Explain in	rk Surface (TF12)
2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6) Depleted Dark Surface (F7)		— Other (Explain III	(Ciliarka)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Redox Depressions (F8)			
Sandy Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LRR N	, MLRA 136)		
MLRA 147,148)	Umbric Surface (F13) (MLRA 136, 122))		
Sandy Gleyed Matrix (S4)	Piedmont Floodplain Soils (F19) (MLRA	A 148)		
Sandy Redox (S5) Stripped Matrix (S6)	Red Parent Material (F21) (MLRA 127,	147)		
³ Indicators of hydrophytic vegetation an	nd wetland hydrology must be present, unless disturbe	d or problema	tic.	
strictive Layer (if observed):				
Туре:		_ Hydri	ic.	/
Depth (inches):		Soll Pres	sent? Yes	No_ <u> </u>
I Description Remarks:		"		
Hydric Hydric	Soils are not present			
rigaria	5 Sollo ott - Hol proposition			
	· ·			

WETLAND DETERMINATION DATA FORM - Easte	ern Mountains and Piedmont Region
Project/Site: Suth Canton City/County: St	drk (0. Sampling Date: 9/11/2017
Applicant/Owner:	State: OH Sampling Point: WOLO - PEM - CAT2
Investigator(s): Section, To	ownship, Range: PIKE Tub
	oncave, convex, none): CONCOVE Slope (%)
Subregion (LRR or MLRA): LRK Lat: 40, 710 975	Long: <u>-81.415971</u> Datum: NAD 83
Soil Map Unit Name: LCF2-UCKING SIH Jodm-12 to 25/. Slaves	NWI classification: NW
Are climatic/hydrologic conditions on the site typical for this time of year?	No (If no, explain in Remarks)
Are Vegetation 10 Soil 10 , or Hydrology 15 significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation 10, Soil 10, or Hydrology 10 naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling pe	oint locations, transects, important features, etc.
Libratra-butia Vagatatian Broomt? Vag	
Hydrophytic Vegetation Present? Yes No	d Area within a Wetland?
	d Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: Wethand data for WOIO-PEM-CATZ	
Data point taken in forested (Immature) -v0 d
a la land forcested (Impature	c) area =
Docto point taken in 1017 Ster comments	
	·
HYDROLOGY	
	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6	Crayfish Burrows (C8)
Sediment Deposits (B2) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	Crayfish Buπows (C8) Saturation Visible on Aerial Imagery (C9)
	,
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aenal Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4) Thin Muck Surface (C7) Other (Explain in Remarks)	Saturation Visible on Aenal Imagery (C9) Stunted or Stressed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Thin Muck Surface (C7) Other (Explain in Remarks) Water-Stained Leaves (B9)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches):	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Depth (inches):	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches):	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
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Tree Stratum (Plot size: 20'	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. Acer rubrum	10	Y Fac	Number of Dominant Species Thet Are OBL, FACW, or FAC: (A)
2			William I
3.			Total Number of Dominent Species Across All Strata: (B)
4.			
5			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6,			
7	- 10	= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by:
		- Total Cover	
Sapling/Shrub Stratum (Plot size: 15	_) 10	V = V	FACW species x 2 =
1. Ulmus americana	10	Y tack	FAC species x 3 =
2. 3.			FACU species x 4 = UPL species x 5 =
4.			Column Totals: (A) (B)
5			D 21 1 1 2 2 2
6		· ·	Prevalence Index = B/A =
8			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation
10,		= Total Cover	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
=1			4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5)	=) 110	4 14	data in Remarks or on a separate sheet)
2 Impatiens Capensis	- 70	Y OVA	Problematic Hydrophytic Vegetation (Explain)
3. Onoclea sensibilis		NI FALM	Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6. 7.		k 	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
θ			diameter.
9			
10			Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.			DBH and greater than or equal to 3.28 ft (1 m) tall.
	<u> 10 </u>	= Total Cover	
			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size:	_)		of size, and woody plants less than 3.28 ft tall.
1. NOVE	_0		±
3		·	Woody Vines - All woody vines greater than 3.28 ft in
4.		-	height.
5			
6,,,	_	= Total Cover	
		= Total Cover	
			Hydrophytic
			Vegetation /
			Present? Yes No
Vegetation Remarks: (Include photo numbers here or on a separate	ate sheet).		
	0.1.	c 12 da	mygance tol.
Welland veg is dominant-	- pass	es the uo	MITUALL TEST.
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9			

		the depth nee	eded to document	the indicator or confirm t	ne ab sen c e	of indicators.)	
Depth	Matrix		Color (-voict)	Redox Features W Type ¹	Loc ²	Texture Remarks	
(inches)	Color (moist)	%	Color (moist)	%Type ¹	LOC		
<u> アラ</u>	104R314	_100		÷: *		Sittledm	
3-16	NU	100_		5		laam	
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	g			4		**************************************	
	. ———					(
ype: C=cond	centration, D=Depletion, F	RM=Reduced	Matrix, MS=Masked	d Sand Grains.		² Location: PL=Pore Lining, M=Matrix.	
dric Soil Inc	dicators:			8		Indicators for Problematic Hydric Soils ³ :	
111-1-	A.4.\		Destroy (07)		2 om Muck (A40) /841 DA 447)	
- Histosol (*	Dark Surface (•	4.45%	2 cm Muck (A10) (MLRA 147)	4.403
_	pedon (A2)	2		ow Surface (S8) (MLRA 147	⁷ , 148)	Coast Praine Redox (A16) (MLRA 147,	, 148)
Black Hist	tic (A3)	_	 /	ace (S9) (MLRA 147, 148)		Piedmont Floodplain Soils (F19)	
Hydrogen	Sulfide (A4)	_	Loamy Gleyed	Matrix (F2)		(MLRA 136, 147)	
Stratified	Layers (A5)	_	Depleted Matri	x (F3)		Very Shallow Dark Surface (TF12)	
2 cm Muc	k (A10) (LRR N)	2	Redox Dark Su	urface (F6)		Other (Explain in Remarks)	
Depleted	Below Dark Surface (A11)	Depleted Dark	Surface (F7)			
Thick Dar	k Surface (A12)	7	Redox Depres	sions (F8)			
	icky Mineral (S1) (LRR N			se Masses (F12) (LRR N, N	ILRA 136)		
MLRA 14		-		e (F13) (MLRA 136, 122)			
	eyed Matrix (S4)	-	Piedmont Floo	dplain Soils (F19) (MLRA 1	48)		
Sandy Re		-		atenal (F21) (MLRA 127, 14			
_	Matrix (S6)	2	IVEG I BIEIK WE	aterial (i 21) (MEIOT 121, 13	'''		
- Guipped ii	Matrix (OO)						
³ Indicators	s of hydrophytic vegetatio	n and wetland	hydrology must be	present, unless disturbed of	or problema	lic.	
strictive La	yer (if observed):						
Type:					Hydri	c .	
Depth (inc	hes):				Soil Pres	sent? Yes/_ No	
il Descripti	on Remarks:						
	Me	ets F2)				
						V.	
						19	

WETLAND DETERMINATION DATA FORM	
Project/Site: Suth Cont City/Con	unty: Stark Co Sampling Date: 912201
Applicant/Owner:	State: Sampling Point: WOII - PFo - CATMOD 2
Investigator(s): Landform (hilslope, terrace, etc.): Logical Diological Logical Logi	Section, Township, Range: Pike Tub- cal relief (concave, convex, none): Concave Slope (%)
Subregion (LRR or MLRA): Lat: 40, 7087	
Soil Map Unit Name: LOB-LOUIDANVILLE SI HOOM, 2 to 67	Slapes / NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks)
Are Vegetation 10, Soil 10, or Hydrology 10 significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation <u>NO</u> , Soil <u>NO</u> , or Hydrology <u>NO</u> naturally problematic?	(If needed, explain any answers in Remarks.) mpling point locations, transects, Important features, etc.
	mping point locations, transects, important locations, etc.
Hydrophytic Vegetation Present? Yes No	. /
Hydric Soil Present? Yes V No Is the	e Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	<u> </u>
Remarks: Welland data for WOII-PFO-CATMODZ	(1.1)
Dotty point taken with in fivesteday	Sheam
Della grist Lakon with in fivestra al	ed hext to perennion stream.
Dotty point faren with in 18.50.50	· "
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Liv	
Water Marks (B1) Presence of Reduced Iron (C	- /h
Sediment Deposits (B2) Recent Iron Reduction in Tille	
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	/Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes V No Depth (inches):	0"
Water Table Present? Yes V, No Depth (inches): 3	
Saturation Present? Yes V No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)	, if available:
Wetland Hydrology Indicators are	Al A3 (3, D2 and D5.
Wetland Hydrology morecons some	This of the terms
	S/
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	38

Tree Stratum 1. Umus americand 2. Acer rubrum 3. 4. 5. 6. 7. Sapling/Shrub Stratum 1. Umus americand 2. Acer rubrum 3. 4. 6. 7. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 7. 6. 6. 6. 7. 6. 6. 6. 7. 6. 6. 6. 7. 6. 6. 6. 7. 6. 6. 6. 7. 6. 6. 6. 7. 6. 6. 6. 6. 7. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	35	Dominant Indicator Species? Factor Fa	Dominance Test worksheet: Number of Dominant Species Thel Are OBL, FACW, or FAC: Percent of Dominant Species Across All Strate: (B) Pervalence Index worksheet: Total % Cover of: OBL species FACW species FAC species FACU species FACU species V 4 = UPL species Column Totals: (A) (A) (A) (B)
5. 6. 7. 8. 9. 10. Herb Stratum 1. Sphaghum Spp. 2. 3. 4. 5. 6. 7.	40	= Total Cover	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata:
8. 9. 10. 11. 12. Plot size: 201 2. 3. 4. 5.		= Total Cover	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter. Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines - All woody vines greater than 3.28 ft in height.
Vegetation Remarks: (Include photo numbers here or on a separa	ate sheet).	= Total Cover	Hydrophytic Vegetation Present? Yes No
wetland veg is dominant *Sphagnum spp. could not b included in the calcula	- passe Lint	es the don ified to spe	minarce test. ccies leveland is not

Soil Profile Description: (Describe to the depth n	eeded to document t	he Indicator o	or confirm th	e absence	of indicators.)	
Depth (inches)	Color (moist)	Redox Featur	es Type¹	Loc ²	Texture lodm	Remarks
¹ Type: C=concentration, D=Depletion, RM=Reduce	d Matrix, MS=Masked	Sand Grains.			²Location: PL=Pore Lin	ing, M=Matrix.
Hydric Soil Indicators:					Indicators for Problem	atic Hydric Solis³:
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Dark Surface (S Polyvalue Belov Thin Dark Surfa Loamy Gleyed I Depleted Matrix Redox Dark Sur Depleted Dark Sur Redox Depress Iron-Manganess Umbric Surface Piedmont Flood Red Parent Mat	w Surface (S8) ace (S9) (MLR Matrix (F2) c (F3) rface (F6) Surface (F7) ions (F8) e Masses (F12 (F13) (MLRA plain Soils (F- terial (F21) (M.	A 147, 148) 2) (LRR N, M 136, 122) 19) (MLRA 1 LRA 127, 14	LRA 136) 48) 7)	Piedmont Floodpla (MLRA 136, 147) Very Shallow Dark Other (Explain in F	ox (A16) (MLRA 147, 148) nin Soils (F19) Surface (TF12)
Restrictive Layer (if observed):						
Type: Depth (inches):				Hydrid Soil Pres		No
Soil Description Remarks: Mccts F	2 and F3		,		(a)	

- 3 0	Mountains and Piedmont Region
Project/Site: SUHN CAMM City/County: Stall	CKCO Sampling Date: 9 12 2011
Applicant/Owner:	State: Sampling Point: WOUL-PFO-CATMODZ-UF
Investigator(s): Section, Town	ship, Range: VIKC Tuff ·
	ave, convex, none): Slope (%)
Subregion (LRR or MLRA): Lat: 40,708705	Long: - 81, 414 806 Datum: NAD 83
Soil Map Unit Name: LOB-LOWGOVILLE SIH JOAM, L to LO 1, SLO	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks)
Are Vegetation \bigcap , Soil \bigcap , or Hydrology \bigcap significantly disturbed? Are Vegetation \bigcap , Soil \bigcap , or Hydrology \bigcap naturally problematic?	Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.)
Are Vegetation 10, Soil 10, or Hydrology 10 naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling poin	•
Summart of Findings - Attach site map showing sampling point	t locations, transcotts, imperiant routeres, etc.
Hydrophytic Vegetation Present? Yes No	,
Hydric Soil Present? Yes No V Is the Sampled A	rea within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: I laland dath and for	
Remarks: Upland datu point for	
Data taken within firested ared.	
Data with Million larget and	*
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) — Oxidized Rhizospheres on Living Roots (C3)	
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aenal Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Geomorphic Position (D2)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Shallow Aguitard (D3)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3) Microtopographic Relief (D4)
	******* *****************************
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe)	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Microtopographic Relief (D4) FAC-Neutral Test (D5)

Tree Stratum 1. Quevous Yubrd 2. Fagus grandifolid 3.	Absolute) % Cover 15 25	Dominant Species? Status Y FacU FacU	Dominance Test worksheet: Number of Dominent Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strate: (B) Percent of Dominent Species That Are
Sapling/Shrub Stratum 1. Fagus grand fold 2. 3. 4.	-, 10	= Total Cover	OBL, FACW, or FAC: (A/B) Prevalence Index worksheet:
2. 3. 4. 5.		= Total Cover	Prevalence Index = B/A =
6. 7. 8. 9. 10. 11. 12. Woody Vine Stratum 1. Parthen assus quinque folia		= Total Cover	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter. Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2. 3. 4. 5. 6.	<u></u>	= Total Cover	Woody Vines - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
Vegetation Remarks: (Include photo numbers here or on a separa Upland veg is dominant.	ite sheet).		

Depth Matrix			ıres			
(inches) Color (moist)	% Color	(moist) %	Type ¹	Loc ²	<u>Texture</u>	Remarks
-16 LOYR312	100				SIIT	
	-				-	
**************************************					* :	
				-		
			-12			
						
	-					
e: C=concentration, D=Depletion	n PM-Paducad Matrix MS	S=Macked Sand Grains	·		² Location: PL=Pore L	ining M=Matrix
e: C=concentration, D=Depletion	n, RIVI-Reduced Matrix, Mis	5-Masked Sand Grains	•		LOCABOTI. 1 E-1 OIC E	ining, in indus.
ic Soil indicators:					Indicators for Proble	matic Hydric Solls ³ :
					5) (III DA 467)
Histosol (A1)		Surface (S7)			2 cm Muck (A10	
Histic Epipedon (A2)	(:	alue Below Surface (St		148)		dox (A16) (MLRA 147, 148)
Black Histic (A3)	-	Dark Surface (S9) (MLI	RA 147, 148)		Piedmont Floodp	
Hydrogen Sulfide (A4)		y Gleyed Matrix (F2)			(MLRA 136, 147	
Stratified Layers (A5)	(eted Matrix (F3)	,			rk Surface (TF12)
2 cm Muck (A10) (LRR N)	Redo	x Dark Surface (F6)			Other (Explain in	Remarks)
Depleted Below Dark Surface (A		eted Dark Surface (F7)				
Thick Dark Surface (A12)	_	x Depressions (F8)				ű.
	R N. Iron-l	Manganese Masses (F1		LRA 136)		
Sandy Mucky Mineral (S1) (LRR		ic Surface (F13) (MLR	A 136, 122)			
MLRA 147,148)	Umbi	4 EL - 4-1-1- O-11- /5	-40\ /84L D 4 4	10\		
MLRA 147,148) Sandy Gleyed Matrix (S4)	Umbi	mont Floodplain Soils (F				
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)	Umbi	mont Floodplain Soils (F Parent Material (F21) (M				
MLRA 147,148) Sandy Gleyed Matrix (S4)	Umbi					
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Umbi	Parent Material (F21) (N	MLRA 127, 14	7)	ic.	
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) 3Indicators of hydrophytic vegeta	Umbi	Parent Material (F21) (N	MLRA 127, 14	7)	ic.	
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta	Umbi	Parent Material (F21) (N	MLRA 127, 14	7) r problemati		
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed):	Umbi	Parent Material (F21) (N	MLRA 127, 14	r problemati		
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed):	Umbi	Parent Material (F21) (N	MLRA 127, 14	7) r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type:	Umbi	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No_ <u>√</u> _
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No_
MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic vegeta rictive Layer (if observed): Type: Depth (inches):	Umbi Piedr Red I	Parent Material (F21) (N	MLRA 127, 14	r problemati		No

WETLAND DETERMINATION DATA FORM - Eastern	
Project/Site: Syth Canton City/County: Star	
Applicant/Owner:	State: OH Sampling Point: W012-PF0-CAT1
	ship, Range: YKKe Tug.
Zancioni (imare)	ve, convex, none):
Subregion (LRR or MLRA): Lat: 40.707 905	Long: -81,416495 Datum: NAD83
Soil Map Unit Name: 617 1 - 64	No (If no, explain in Remarks)
Are Vegetation MD , Soil MD , or Hydrology MD significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation NU , Soil NU , or Hydrology NU naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point	locations, transects, important features, etc.
II do shada Varashadan Basanda - Van - Na	
Hydrophytic Vegetation Present? Yes V No	ea within a Wetland? Yes No
1,74.10 54.17 1.17	SE WILLIAM TO THE SECONDARY SECONDAR
Wetland Hydrology Present? Yes No	
Data taken with in forested area.	
Data taken with in forested area	
HYDROLOGY	
	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required, check all that apply)	/ Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	9,000
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5) Other (Explain in Remarks)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No V Depth (inches):	
Water Table Present? Yes No Depth (inches):	,
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	
Hydrology marcasors are B1, 130, DL	
Hydrology Indicators are B9, B8, D2	
Hydrology marcators are B1, 138, DZ	
Hydrology marcators are B1, 130, DZ	
Hydrology marcators are B1, 130, DZ	
Hydrology marcators are B1, 130, DZ	
Hydrology marcators are B1, 120, DZ	
Hydrology marcators are B1, 120, DZ	
Hydrology marcators are B1, 130, DZ	
Hydrology marcators are B1, 130, DZ	
Hydrology marcators are bir, 120, DZ	
Hydrology marcators are bi, 120, DZ	

Cover 10 5	Species?	Facus Facus	Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strate: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/E
		Fach	Total Number of Dominant Species Across All Strate: Percent of Dominant Species That Are
			Across All Strate: (B) Percent of Dominant Species That Are
			Across All Strate: (B) Percent of Dominant Species That Are
		==	
		-	
			OBL, FACW, or FAC: (A/E
_			
			Prevalence Index worksheet:
15	= Total Co	ver	Total % Cover of: Multiply by:
			OBL species x 1 =
(1)	NI.	SIC	FACW species x 2 =
	\rightarrow	Tuc	FAC species x 3 = FACU species x 4 =
		-	UPL species x5 =
	-	-	Column Totals: (A) (8
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
1	= Total Co	ver	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
	10121 00		4 - Morphological Adaptations¹ (Provide supporting
			data in Remarks or on a separate sheet)
			Problematic Hydrophytic Vegetation ¹ (Explain)
			2-
			Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
			Definitions of Vegetation Strata:
			Turn Manda plants applied to since 2 to (7.0 cm) and a since
			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more i diameter.
			Sapling/Shrub- Woody plants, excluding vines, less than 3 in
_			DBH and greater than or equal to 3.28 ft (1 m) tall.
	= Total Co	ver	
			Herb - All herbaceous (non-woody) plants, regardless
			of size, and woody plants less than 3.28 ft tall.
			*
			Woody Vines - All woody vines greater than 3.28 ft in
_			height.
<u> </u>	= Total Co	ver	
	- 10(a) 00		
			Hydrophytic
			Vegetation
		4	Present? Yes No
		= Total Co	Total Cover

(inches) Color (moist) % Color (moist) -1(0 N 3/ 100)		Loc ²	Texture	Remarks
e: C=concentration, D=Depletion, RM=Reduced Matrix, MS=Mask	ed Sand Grains.	2	Location: PL=Pore Lin	ing, M=Matrix.
ric Soil Indicators:		I	ndicators for Problem	atic Hydrlc Soils ³ :
Histosol (A1) — Dark Surface Polyvalue Be	e (S7) elow Surface (S8) (MLRA 147 ,	148)	2 cm Muck (A10) (Coast Prairie Redo	MLRA 147) ox (A16) (MLRA 147, 148)
· · · · · · · · · · · · · · · · · · ·	urface (S9) (MLRA 147, 148)	*	— Piedmont Floodpla	
	ed Matrix (F2)	_	(MLRA 136, 147)	
Stratified Layers (A5) Depleted Ma			Very Shallow Dark	Surface (TF12)
2 cm Muck (A10) (LRR N) Redox Dark	Surface (F6)		Other (Explain in F	Remarks)
Depleted Below Dark Surface (A11) Depleted Da	rk Surface (F7)			
Thick Dark Surface (A12) Redox Depre				
Sandy Mucky Mineral (S1) (LRR N, Iron-Mangan	ese Masses (F12) (LRR N, M	LRA 136)		
MLRA 147,148) Umbric Surfa	ace (F13) (MLRA 136, 122)			
Sandy Gleyed Matrix (S4) Piedmont Flo	oodplain Soils (F19) (MLRA 1 4	1 8)		
Sandy Redox (S5) Red Parent !	Material (F21) (MLRA 127, 147	7)		
Stripped Matrix (S6)				
³ Indicators of hydrophytic vegetation and wetland hydrology must b	oè present, unless disturbed o	r problematic.		
trictive Layer (if observed): Type:		Hydric		/
Depth (inches):		Soil Presei	nt? Yes <u>\</u>	No
Description Remarks: Meets F2				
Meets + C =				
	A			D
		X.		

WETLAND DETERMINATION DATA FORM - Easte	ern Mountains and Piedmont Region
Project/Site: South Canton City/County: S	Sampling Date: 9 2 201
Applicant/Owner:	State: OH Sampling Point: W012-PF0-CAT1-UPC
Investigator(s): Section, To	ownship, Range: PKL TWD
2732.112	oncave, convex, none): Slope (%)
Subregion (LRR or MLRA): Lat: 40.708095	Long: -81, 4/6555 Datum: NAD 83
Soil Map Unit Name: BhPXFI-Beth(5dd-Pits surface mine . 25 to 70)	NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks) Are "Normal Circumstances" present? Yes No
Are Vegetation NO , Soil NO , or Hydrology NO significantly disturbed? Are Vegetation NO , Soil NO , or Hydrology NO naturally problematic?	Are "Normal Circumstances" present? Yes No No
SUMMARY OF FINDINGS - Attach site map showing sampling po	CHARLES THE COLOR OF THE CONTROL OF THE COLOR OF THE COLO
Hydrophytic Vegetation Present? Yes No/	./
Hydric Soil Present? Yes No V Is the Samplec	d Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	e .
Remarks: Upland data for WOIZ-PFO-CATI and W	013-PFO-CATMODZ.
Dotter point taken with in firested o	CYLU -
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Water Marks (B1) —— Presence of Reduced Iron (C4)	
Sediment Deposits (B2) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	Saturation Visible on Aenal Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	· · · · · · · · · · · · · · · · · · ·
Surface Water Present? Yes No/ Depth (inches):	¥*
Water Table Present? Yes No , Depth (inches):	,
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	e:
Remarks:	
Wetland hydrology is not present	
J Control of the state of the s	
E E	
	5 R 12

201	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30) _% Cover	Species? Status	
. Quercus rubrd.	30	Y FACU	Numbar of Dominant Specias That Are OBL, FACW, or FAC: (A)
	- 10	FACU	
2. Populus grandidentald		1100	Total Numbar of Dominant Spacies
3			Across All Strata: (B)
4			
4		: 	Percent of Dominant Specias That Are
5			OBL, FACW, or FAC: (A/B)
6			
7			Prevalence Index worksheet:
<u> </u>	- 40	= Total Cover	Total % Cover of: Multiply by:
* * * * * * * * * * * * * * * * * * *			OBL species x 1 =
Sapling/Shrub Stratum (Plot size: \\)	N.		FACW species x 2 =
1. Fraxinus americana	15	VI FAVI	FAC species x 3 =
2 QUECCUS YUDYA	- 70		
		A THOU	FACU species x 4 =
3.			UPL species x 5 =
4			Column Totals: (A) (B)
5			
6			Prevalence Index = B/A =
7			
8	22		Hydrophytic Vegetation Indicators:
9.			1 - Rapid Test for Hydrophytic Vegetation
10.			2 - Dominance Test is >50%
3.	- 35	= Total Cover	3 - Prevalence Index is ≤3.01
H 1			4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5)		data in Remarks or on a separate sheet)
• WW 0			Problematic Hydrophytic Vegetation ¹ (Explain)
2.		*	(a-p-2-1)
3			1 Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
*			
			Definitions of Vegetation Strata:
6			
7.			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8			diameter,
9			
10			
11	_:		Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12			DBH and greater than or equal to 3.28 ft (1 m) tall.
	_O	= Total Cover	
			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size:)		of size, and woody plants less than 3.28 ft tall.
1. None	=:		
2			
3			Woody Vines - All woody vines greater than 3.28 ft in
			height.
4		·	noight.
5	_ =		
0		- T 4-1 O	
	_	= Total Cover	12
			Illustration to the state of th
			Hydrophytic
			Vegetation
			Present? Yes No V
			H H
Vegetation Remarks: (Include photo numbers here or on a separ	ate sheet).		
and days and			
Upland Veg 15 dominant.			
9			

Soil Profile Descr	lption: (Describe to	the depth nee	eded to document	the indicator o	r confirm the	e absence	of indicators.)
Depth	Matrix Color (moist)	<u>%</u>	Color (moist)	Redox Feature	Type ¹	Loc ²	Texture	Coalrefue material
¹Type: C=concentr	ation, D=Depletion, I	RM=Reduced	Matrix, MS=Masked	Sand Grains.	-		² Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil Indicat	ors:						Indicators f	or Problematic Hydric Solis ³ :
Thick Dark Sul Sandy Mucky I MLRA 147,148 Sandy Gleyed Sandy Redox (Stripped Matrix	ide (A4) rs (A5) 10) (LRR N) w Dark Surface (A11 rface (A12) Mineral (S1) (LRR N 8) Matrix (S4) (S5)	· -	Thin Dark Surf Loamy Gleyed Depleted Matri Redox Dark St Depleted Dark Redox Depress Iron-Manganes Umbric Surfact Piedmont Floo Red Parent Ma	ow Surface (S8) ace (S9) (MLRA Matrix (F2) x (F3) urface (F6) Surface (F7) sions (F8) se Masses (F12 e (F13) (MLRA dplain Soils (F1 aterial (F21) (ML) (LRR N, MI 136, 122) 9) (MLRA 14 .RA 127, 147	LRA 136) 88) ')	Coast I Piedmo (MLRA Very Si Other (luck (A10) (MLRA 147) Prairie Redox (A16) (MLRA 147, 148) Ont Floodplain Soils (F19) 136, 147) hallow Dark Surface (TF12) Explain in Remarks)
	ydrophytic vegetatio	n and wetland	hydrology must be	present, unless	disturbed of	problemat	ic.	
Restrictive Layer Type: Depth (inches)			=			Hydrid Soil Pres		Yes No
Soii Description F	Remarks:	Iric Soil	not pres	ent	301/50	imple	taken	on coal spatpile.
	1 5:				2			P

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region
Project/Site: SWHD CONTROL City/County: STAY KCO. Sampling Date: 9/12/2017
Applicant/Owner: State: OH Sampling Point: W613 - PFo - CATMOD 2
Investigator(s): Section, Township, Range: P; ke Twp.
Landform (hilslope, terrace, etc.): Local relief (concave, convex, none): Slope (%)
Subregion (LRR or MLRA): Lat: 40, 708263 Long: -81,416192 Datum: NAD 83
Soil Map Unit Name: BANT - Bethood of its Surface mine, 25 to 10 1000 NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks)
Are Vegetation MO , Soil MO , or Hydrology MO significantly disturbed? Are "Normal Circumstances" present? Yes MO No Are Vegetation MO . Soil MO , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
Are Vegetation 10, Soil 10, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important realistes, etc.
Hydrophytic Vegetation Present? Yes V No No
Hydric Soil Present? Yes No Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No
Remarks:
Wetland data for wo13-PFO-CATMODZ,
Data point taken within forested area.
Datis park ton
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply) Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Microtopographic Relief (D4)
Aquatic Fauna (B13) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Wettand hydrology Indicators are A1, A3, B9, B8, and D2.
Wettaria ny arology malcastors and m, ms, is, is, is, is
y and the second
H .

Tree Stratum (P	lot size: 30	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. Acer rubrum		15	Y FAC	Number of Dominent Species That Are OBL, FACW, or FAC: (A)
2 Quercus Imbrica	ina	15	Y FACU	
3.				Total Number of Dominant Species Across All Strate: (B)
4				OC.
5.				Percent of Dominent Species That Are OBL, FACW, or FAC: (A/B)
6.				162
7		-20		Prevalence Index worksheet:
		50_	= Total Cover	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (P	lot size: 15'	Y		OBL species x 1 = FACW species x 2 =
· Aren rubrum		<u>10 </u>	Y Fac	FAC species x 3 =
2	3			FACU species x 4 =
3		ş -		UPL species
4 5				Column Totals(A)(B)
6.				Prevalence Index = B/A =
7				
8		===		Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
9. 10.		-		2 - Dominance Test is >50%
,,,		10	= Total Cover	3 - Prevalence Index is ≤3.0¹
	-1			4 - Morphological Adaptations (Provide supporting
Herb Stratum (Pl	ot size: 5)		data in Remarks or on a separate sheet)
1. None				Problematic Hydrophytic Vegetation¹ (Explain)
3.			· · · · · · · · · · · · · · · · · · ·	1 Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				To a Manda data avaluding visca 2 in (7.6 and avaluation)
7 8				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
9.				
10				
11.				Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
12		0	= Total Cover	DBN and greater than or equal to 5.25 ft (1 ff) tall.
	2N			Herb - All herbaceous (non-woody) plants, regardless
1. Nuclear (Pl	ot size: 50')		of size, and woody plants less than 3.28 ft tall.
2.				
3				Woody Vines - All woody vines greater than 3.28 ft in
4		·		height.
5		· 		
6		0	= Total Cover	
			Total Gover	13
				Hydrophytic
				Vegetation /
				Present?
Vegetation Remarks: (Include photo numl	pers here or on a separate	sheet).		
Welland Veg is ples	7	h	1	test
1 Jelland Ned is ones	ent-passes	the	am Iran	. (, ,
Mountain 12 01.				

Depth	Matrix		Redox Featur	res				
(inches) Color (moist)	% Color (mois		Type ¹	Loc ²	Texture	Remarks	
)-16 N	3/ 10	0				lodm		
	- .							
						·		
								
						-		
pe: C=concentration, D=I	Depletion RM=R	leduced Matrix MS=Ma	sked Sand Grains	/ /0		²l ocation: PL=Pc	ore Lining, M=Matrix.	
De. O-concentration, D-t	sepretion, raw-ra	edoced Wallix, WG-Wa	sked darid Grains.			Loodson 1 L 1 C	or coming in means.	
ric Soil indicators:						indicators for Pr	obiematic Hydric Solls ³ :	
			(07)			O and March	(A40) (MLDA 447)	
Histosol (A1)		Dark Surfa	• •	\	440\		(A10) (MLRA 147)	4.40\
Histic Epipedon (A2)			Below Surface (S8		148)		e Redox (A16) (MLRA 147,	140)
Black Histic (A3)		_ /	Surface (S9) (MLR	A 14/, 140)			oodplain Soils (F19)	
Hydrogen Sulfide (A4)		✓ Loamy Gleyed Matrix (F2)				(MLRA 136,	147)	
			Depleted Matrix (F3)				D 1 0 ((TE40)	
Stratified Layers (A5)							w Dark Surface (TF12)	
2 cm Muck (A10) (LRR		Redox Dar	k Surface (F6)				w Dark Surface (TF12) ain in Remarks)	
2 cm Muck (A10) (LRR I Depleted Below Dark Su	ırface (A11)	Redox Dar	rk Surface (F6) Dark Surface (F7)					
2 cm Muck (A10) (LRR I Depleted Below Dark Su Thick Dark Surface (A12	ırface (A11) ?)	Redox Dar Depleted C Redox Dep	rk Surface (F6) Dark Surface (F7) pressions (F8)	0) (I DD N N	I DA 426\			
2 cm Muck (A10) (LRR I Depleted Below Dark Su Thick Dark Surface (A12 Sandy Mucky Mineral (S	ırface (A11) ?)	Redox Dar Depleted D Redox Dep	rk Surface (F6) Dark Surface (F7) Dressions (F8) anese Masses (F12		LRA 136)			
2 cm Muck (A10) (LRR I Depleted Below Dark Su Thick Dark Surface (A12 Sandy Mucky Mineral (S MLRA 147,148)	urface (A11) ?) 1) (LRR N,	Redox Dar Depleted E Redox Dep Iron-Manga Umbric Su	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12 Drface (F13) (MLRA	136, 122)				
2 cm Muck (A10) (LRR I Depleted Below Dark Su Thick Dark Surface (A12 Sandy Mucky Mineral (S MLRA 147,148) Sandy Gleyed Matrix (SA	urface (A11) ?) 1) (LRR N,	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Su	k Surface (F6) Dark Surface (F7) Dressions (F8) Dressions (F8) Dressions (F13)	1 36, 122) 19) (MLRA 1 4	48)			
2 cm Muck (A10) (LRR I Depleted Below Dark Su Thick Dark Surface (A12 Sandy Mucky Mineral (S MLRA 147,148) Sandy Gleyed Matrix (S4 Sandy Redox (S5)	urface (A11) ?) 1) (LRR N,	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Su	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12 Drface (F13) (MLRA	1 36, 122) 19) (MLRA 1 4	48)			
2 cm Muck (A10) (LRR I Depleted Below Dark Su Thick Dark Surface (A12 Sandy Mucky Mineral (S MLRA 147,148) Sandy Gleyed Matrix (SA	urface (A11) ?) 1) (LRR N,	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Su	k Surface (F6) Dark Surface (F7) Dressions (F8) Dressions (F8) Dressions (F13)	1 36, 122) 19) (MLRA 1 4	48)			
2 cm Muck (A10) (LRR (Depleted Below Dark Su Thick Dark Surface (A12 Sandy Mucky Mineral (S MLRA 147,148) Sandy Gleyed Matrix (S4 Sandy Redox (S5)	irface (A11) 2) 1) (LRR N,	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Su Piedmont F	k Surface (F6) Dark Surface (F7) Dressions (F8) Dressions (F8) Dresse Masses (F12 Dresse Masses (F2)	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7)	Other (Expla		
2 cm Muck (A10) (LRR (Depleted Below Dark Surface (A12) Sandy Mucky Mineral (SMLRA 147,148) Sandy Gleyed Matrix (SA) Sandy Redox (S5) Stripped Matrix (S6) 3 Indicators of hydrophytic	urface (A11) 2) 1) (LRR N, 4)	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Su Piedmont F	k Surface (F6) Dark Surface (F7) Dressions (F8) Dressions (F8) Dresse Masses (F12 Dresse Masses (F2)	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7)	Other (Expla		
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2 cm Muck (A10) (LRR III) Depleted Below Dark Sultrick Dark Surface (A12) Sandy Mucky Mineral (Simulation of MLRA 147,148) Sandy Gleyed Matrix (Signary Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic trictive Layer (if observing)	urface (A11) 2) 1) (LRR N, 4)	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Su Piedmont F	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12) Trace (F13) (MLRA Floodplain Soils (F12) (Material (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR III) Depleted Below Dark Sultrick Dark Surface (A12) Sandy Mucky Mineral (Simulation of MLRA 147,148) Sandy Gleyed Matrix (Simulation of Matrix (Simulation	urface (A11) 2) 1) (LRR N, 4)	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Su Piedmont F	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12) Trace (F13) (MLRA Floodplain Soils (F12) (Material (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR III) Depleted Below Dark Sultrick Dark Surface (A12 Sandy Mucky Mineral (Simulation of MLRA 147,148) Sandy Gleyed Matrix (Simulation of Matrix (Simulation of Mydrophytic strictive Layer (if observing)	urface (A11) 2) 1) (LRR N, 4)	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Su Piedmont F	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12) Trace (F13) (MLRA Floodplain Soils (F12) (Material (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
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2 cm Muck (A10) (LRR (Depleted Below Dark Sulface (A12) Sandy Mucky Mineral (Sulface (A14) Sandy Gleyed Matrix (Sulface (Solf) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic strictive Layer (if observation)	urface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12) Trace (F13) (MLRA Floodplain Soils (F12) (Material (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
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2 cm Muck (A10) (LRR (Depleted Below Dark Surface (A12) Sandy Mucky Mineral (SMLRA 147,148) Sandy Gleyed Matrix (SA) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic trictive Layer (if observation) Depth (inches):	erface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12) Trace (F13) (MLRA Floodplain Soils (F12) (Material (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR (Depleted Below Dark Sulface (A12) Sandy Mucky Mineral (Sulface (A14) Sandy Gleyed Matrix (Sulface (Solf) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic strictive Layer (if observation)	erface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12) Trace (F13) (MLRA Floodplain Soils (F12) (Material (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR III) Depleted Below Dark Sultrick Dark Surface (A12 Sandy Mucky Mineral (Simulation of MLRA 147,148) Sandy Gleyed Matrix (Simulation of Matrix (Simulation of Mydrophytic strictive Layer (if observable)	erface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12) Trace (F13) (MLRA Floodplain Soils (F12) (Material (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR (Depleted Below Dark Sulface (A12) Sandy Mucky Mineral (Simulation MLRA 147,148) Sandy Gleyed Matrix (Selection Sandy Redox (S5) Stripped Matrix (S6) 3 Indicators of hydrophytic strictive Layer (if observation) Depth (inches):	erface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dresse Masses (F12) Trace (F13) (MLRA Floodplain Soils (F12) (Material (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR (Depleted Below Dark Sulface (A12) Sandy Mucky Mineral (Simulation MLRA 147,148) Sandy Gleyed Matrix (Selection Sandy Redox (S5) Stripped Matrix (S6) 3 Indicators of hydrophytic strictive Layer (if observation) Depth (inches):	erface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dressions (F8) Dressions (F12) Dressions (F12) Trace (F13) (MLRA Floodplain Soils (F12) Trace (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR (Depleted Below Dark Sulface (A12) Sandy Mucky Mineral (Sulface (A14) Sandy Gleyed Matrix (Sulface (Solf) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic strictive Layer (if observation)	erface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dressions (F8) Dressions (F12) Dressions (F12) Trace (F13) (MLRA Floodplain Soils (F12) Trace (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR (Depleted Below Dark Sulface (A12) Sandy Mucky Mineral (Simulation MLRA 147,148) Sandy Gleyed Matrix (Selection Sandy Redox (S5) Stripped Matrix (S6) 3 Indicators of hydrophytic strictive Layer (if observation) Depth (inches):	erface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dressions (F8) Dressions (F12) Dressions (F12) Trace (F13) (MLRA Floodplain Soils (F12) Trace (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR (Depleted Below Dark Surface (A12) Sandy Mucky Mineral (SMLRA 147,148) Sandy Gleyed Matrix (SA) Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic trictive Layer (if observation) Depth (inches):	erface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dressions (F8) Dressions (F12) Dressions (F12) Trace (F13) (MLRA Floodplain Soils (F12) Trace (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	
2 cm Muck (A10) (LRR III) Depleted Below Dark St. Thick Dark Surface (A12) Sandy Mucky Mineral (St. MLRA 147,148) Sandy Gleyed Matrix (St. Sandy Redox (S5) Stripped Matrix (S6) Indicators of hydrophytic trictive Layer (if obserting) Depth (inches):	erface (A11) 2) 1) (LRR N, 4) c vegetation and ved):	Redox Dar Depleted D Redox Dep Iron-Manga Umbric Sur Piedmont R Red Paren wetland hydrology mus	k Surface (F6) Dark Surface (F7) Dressions (F8) Dressions (F8) Dressions (F12) Dressions (F12) Trace (F13) (MLRA Floodplain Soils (F12) Trace (F21) (M	. 136, 122) 19) (MLRA 1 4 LRA 127, 14	48) 7) r problemat	Other (Explain.)	ain in Remarks)	

WETLAND DETERMINATION DATA FORM - Easter	m Mountains and Piedmont Region
Project/Site: Sutto Continue City/County:	Sampling Date: 91/2/2011
Applicant/Owner:	State: OH Sampling Point: W014-PEM-CATZ
	wnship, Range: PIKE TWY.
	ncave, convex, none): CONCOUC Slope (%)
Subregion (LRR or MLRA): Lat: 40, 708485	Long: -81,413617 Datum: NAD 83
Soll Map Unit Name: Bh PXFI - Bethood - Pits surface mine, 25 to 701	Stopes NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks)
Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation $\bigcap O$, Soil $\bigcap O$, or Hydrology $\bigcap O$ naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling po	•
Comment of Findings Accounting company	, , , , , , , , , , , , , , , , , , , ,
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No Is the Sampled	Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: Walland data for W014-PEM-CATZ.	
Madalalalala III Mala IIII Citi	./
Data point taken within forested are	ral.
Data point taken within to consider	
15 oct of the	
	2
HYDROLOGY	
<u> </u>	Secondary Indigetors (minimum of two required)
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
Surface Water (A1) True Aquatic Plants (B14)	Drainage Patterns (B10)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	
Saturation (A3) Oxidized Rhizospheres on Living Roots (C	Dry-Season Water Table (C2)
Water Marks (B1) Presence of Reduced Iron (C4)	
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
	Catanatian Visible on Apriol Imagent (CO)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Geomorphic Position (D2) Shallow Aquitard (D3)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Geomorphic Position (D2) Shallow Aquitard (D3)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches):	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present?	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
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Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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Tree Stratum 1. ACEN YUDUM (Plot size: 30)	Absolute) % Cover	Dominant Indicator Species? Status FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total Number of Dominant Species Across All Strata:
4			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet:
Sapling/Shrub Stratum 1. Frangula alnus 2 3		= Total Cover	Total % Cover of: Multiply by:
4		$\pm \equiv$	Column Totals: (A) (B) Prevalence Index = B/A =
8	10	= Total Cover	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Domilhance Test is >50% 3 - Prevalence Index is ≤3.0³ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Hero Stratum 1. Phragmits australis 2. 3. 4. 5.		Y Fadr	Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soll and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
10	<u> </u>	= Total Cover	Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
Woody Vine Stratum 1. NWC (Plot size: 3)	_)		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2. 3. 4. 5.			Woody Vines - All woody vines greater than 3.28 ft in height.
6		= Total Cover	II. da cabada
			Hydrophytic Vegetation Present? Yes No
Vegetation Remarks: (Include photo numbers here or on a separation with the separation of the separati	ate sheet). -passes	dominara	ctost:
J			

	Matrix			Redox Features		7224770447.6011	
(inches)	Color (mojst)	- %_	Color (moist)	%Type ¹	Loc ²	Texture Remarks	
<i>yd</i>	104K413	100				Sandylaam	
-16	1048411	80	104K316	201.		Sandyladm	
	, ,					<u> </u>	
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	- (; -			··			
na: C=conc	centration, D=Depletion,	PM-Paduas		Cond Grains		² Location: PL=Pore Lining, M=Matrix.	
be. C-conc	centration, D-Depletion,	Kivi-Keducei	J Matrix, MS-Masked S	Sand Grains.		Location. FE-F ore Enting, IM-Matrix.	
iric Soll Ind	dicators:				DC .	Indicators for Problematic Hydric Solls ³ :	
Historial (A 4\		Dark Surface (S	7 \		2 cm Muck (A10) (MLRA 147)	
Histosol (A	pedon (A2)			′) / Surface (S8) (MLRA 14	7 148)	Coast Prairie Redox (A16) (MLRA 147, 148)	
Black Hist				ce (S9) (MLRA 147, 148)		Piedmont Floodplain Soils (F19)	
	Sulfide (A4)		/ Loamy Gleyed M			(MLRA 136, 147)	
	Layers (A5)		Depleted Matrix		(MLRA 136, 147) Very Shallow Dark Surface (TF12)		
	k (A10) (LRR N)		Redox Dark Surf		•	Other (Explain in Remarks)	
	Below Dark Surface (A1	1)	Depleted Dark S				
	k Surface (A12)	,	Redox Depression				
	cky Mineral (S1) (LRR I	N,	Iron-Manganese	Masses (F12) (LRR N, M	MLRA 136)		
MLRA 147	7,148)		Umbric Surface	(F13) (MLRA 136, 122)			
	eyed Matrix (S4)		Piedmont Floods	olain Soils (F19) (MLRA 1	48)		
	,,			Jal (E24) (MLDA 427, 44	1 4 2 1		
	· ·		Red Parent Mate	enai (F21) (IVILRA 127, 14	17)		
Sandy Gle	dox (S5)		Red Parent Mate	enai (F21) (IVILRA 127, 14	+ <i>(</i>)		
Sandy Gle Sandy Red Stripped M	dox (S5) Matrix (S6)	on and wetlar				c .	
Sandy Gle Sandy Red Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetati	on and wetlar		resent, unless disturbed		c.	
Sandy Gle Sandy Rec Stripped M Indicators	dox (S5) Matrix (S6)	on and wetlar			or problemati		
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetati	on and wetlar			or problemati	· /	
Sandy Gle Sandy Rec Stripped M Indicators strictive La	dox (S5) Matrix (S6) s of hydrophytic vegetati nyer (If observed):	on and wetlar			or problemati	· /	
Sandy Gle Sandy Rec Stripped M Indicators Strictive La Type:	dox (S5) Matrix (S6) s of hydrophytic vegetati nyer (If observed):	on and wetlar			or problemati	· /	
Sandy Gle Sandy Rec Stripped M Indicators Strictive La Type: Depth (incl	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	· /	
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):	on and wetlar	id hydrology must be p		or problemati	· /	
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	ent? Yes No	
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	· /	
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	ent? Yes No	
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	ent? Yes No	
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	ent? Yes No	
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	ent? Yes No	
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	ent? Yes No	
Sandy Gle Sandy Rec Stripped M Indicators Strictive La Type: Depth (incl	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	ent? Yes No	
Sandy Gle Sandy Rec Stripped M	dox (S5) Matrix (S6) s of hydrophytic vegetation eyer (If observed): thes):		id hydrology must be p		or problemati	ent? Yes No	

Project/Site: Suth Curt City/County: Stuy	kCo Sampling Date: 9/12/2017
Applicant/Owner:	State: OH Sampling Point: WOIY-PEM-CATZ-VPL
	ip, Range: PIKC Tuy.
Landform (hilslope, terrace, etc.):	
Subregion (LRR or MLRA): Lat: 40, 708730	Long: -81,413489 Datum: NAD 83
Soil Map Unit Name: BhPXFI-Bethood -Pits surface mixe, 25 to 70	Slove) NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks)
Are Vegetation \(\bar{\lambda} \bar{\rangle} \), Soil \(\bar{\rangle} \bar{\rangle} \), or Hydrology \(\bar{\rangle} \bar{\rangle} \) significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation $\frac{\Pi \cup \Pi}{\Pi}$, Soil $\frac{\Pi}{\Pi}$, or Hydrology $\frac{\Pi}{\Pi}$ naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point i	ocations, transects, important features, etc.
/	
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No Is the Sampled Area	a within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Data point taken within fivested area	
Remarks: () oland data for WOIY-PEM-CATZ.	
plures seed to be a laced	
Dela point taken within thestol area	
Lata point were	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Pattems (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aenal Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Water Table Present? Yes No Depth (inches):	
	Vetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	T T
Remarks:	
Wetland hydrology is not present.	
. 01	
	8
17.	
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4	
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	3
	3

Tree Stratum (Plot size: 30)	Absolute	Dominant Indicator	Dominance Test worksheet:
A man can be written as) % Cover	Species? Status	Number of Dominant Species That Are
Acer rubrum	_ 12	THU	OBL, FACW, or FAC:
2. Acer saccharum	_ 15_	HACU	
3. Quercus rubrd	70	FALL	Total Number of Dominant Species Across All Strata: (B)
		100	(9)
4			Percent of Dominant Species That Are
5			OBL, FACW, or FAC:
6			
7	- 150		Prevalence Index worksheet:
	20	= Total Cover	Total % Cover of: Multiply by:
16			OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15	-16	I TAC	FACW species x 2 =
1 trangula ainus	- 13-	THE THE	FAC species x 3 =
2. CHUCYOUS YUBIA	_ 10_	THEO	FACU species x 4 =
3			UPL species x 5 =
4			Column Totals: (A) (B)
5			
6		· · ·	Prevalence Index = B/A =
7,			
8			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
10	-15	= Total Cover	3 - Prevalence Index is ≤3.0¹
		- Total Cover	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5	Ŷ		data in Remarks or on a separate sheet)
1. TONC			Problematic Hydrophytic Vegetation ¹ (Explain)
2			Troolemane Hydrophysic Vegenation (Explain)
3			1 Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			
7.			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8.			diameter.
9.			WARRANT CONTROL OF THE CONTROL OF TH
10			
11.			Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.			DBH and greater than or equal to 3.28 ft (1 m) tall.
	D_{-}	= Total Cover	
	0		
221			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size:)		of size, and woody plants less than 3.28 ft tall.
1. None			
2		· · · · · · · · · · · · · · · · · · ·	
3.			Woody Vines - All woody vines greater than 3.28 ft in
4			height.
5			
6	- 7		·
	0	= Total Cover	
			Hydrophytic
			Vegetation
			Present? Yes No V
Vegetation Remarks: (Include photo numbers here or on a separ	rate sheet)		
Upland veg is dominant			
Upland vea 15 dominant	ti		
7			
4			
8			V
			2

	th needed to document the indicator or confirm	the absence	of indicators.)	
Depth Matrix	Redox Features	. 2		
(inches) Color (moist) % 104R 4 2 100	Color (moist) % Type ¹	Loc²	Sill	Remarks
				× × × × × × × × × × × × × × × × × × ×
ype: C=concentration, D=Depletion, RM=Red	uced Matrix, MS=Masked Sand Grains.		² Location: PL=Pore Linin	
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 14 Thin Dark Surface (S9) (MLRA 147, 148 Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 127, 20) Red Parent Material (F21) (MLRA 127, 20)	MLRA 136) 148) 47)	Piedmont Floodplair (MLRA 136, 147) Very Shallow Dark S Other (Explain in Re	(A16) (MLRA 147, 148) n Soils (F19) Surface (TF12)
strictive Layer (if observed):	mano nyarotogy must be prosent, unless distarbook	Tor problemas	M.	
Type:		Hydric Soil Pres		No
oil Description Remarks:	Soils are not present.		*	2.
		₩		
				ž.

WETLAND DETERMINATION DATA FORM - Eastern	Mountains and Piedmont Region
Project/Site: South Canton City/County: Stay	CO. Sampling Date: 9/12/2017
Applicant/Owner:	State: () Sampling Point: WOIS-PEM-CATMOD
Investigator(s): Section, Town	ship, Range: PIKE Turp.
Landform (hilslope, terrace, etc.): Local relief (cond	ave, convex, none): CONCOUL Slope (%)
Subregion (LRR or MLRA): Lat: 40.709938	Long: 81,412179 Datum: NAD 83
Soil Map Unit Name: Ohn 1+1-Beth Sola Channey Jodm 25to 10 150	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks)
Are Vegetation 0 , Soil 0 , or Hydrology 10 significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation (1), Soil (1), or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling poir	nt locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	,
Hydric Soil Present? Yes No Is the Sampled A	rea within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: Wettand data for WOIS-PEM-CATMODZ.	11)
Data point taken within transmission	line how.
Entire area has been previously Strip mines	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3	
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Tile No. 1. Southers (C7)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7) Other (Cycle in Preparette)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	/Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	
Watand hydrology Indicators are Al, A	3. D2 and P5
Weller of Holomorphy well-carry of the	
	6
	25.5
	15

Tree Stratum	(Plot size: 30	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are
1. NMC 2	· · · · · · · · · · · · · · · · · · ·	—s——		OBL, FACW, or FAC: Total Number of Dominant Species Across All Strate: (B)
5				Percent of Dominant Spacies That Are OBL, FACW, or FAC: (A/B
			= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum 1. NOW C	(Plot size: 5		20-	OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 =
4 5				UPL species x 5 = Column Totals: (A) Prevalence Index = B/A =
7. 8. 9.				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
Herb Stratum 1. SCIPPUS CU 2. LECYSIA ON	(Plot size: 51		= Total Cover	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata:
8. 9.				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
11. 2.		15	= Total Cover	SaplIng/Shrub- Woody plants, excluding vines, less than 3 in DBH and greater than or equal to 3.28 ft (1 m) tall.
Voody Vine Stratum	(Plot size: 30 /	_)		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2. 3. 4. 5.				Woody Vines - All woody vines greater than 3.28 ft in height.
6			= Total Cover	10
				Hydrophytic Vegetation Present? Yes No
Vegetation Remarks: (Includ	e photo numbers here or on a sepa	passes	the domin	ance tost and rapid tost.
	V	•		

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ls³:
447 440\
147, 148)
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WETLAND DETERMINATION DATA FORM - Eastern Mour	ntains and Piedmont Region
Project/Site: South Canton city/County: Stank	Sampling Date: 9/12/2017
10	state: OH Sampling Point: WOIS-PEM-CATMOD2-UP
Investigator(s): Section, Township, Ra	
Landform (hilslope, terrace, etc.): Local relief (concave, con	nvex, none): Slope (%)
Subregion (LRR or MLRA): Lat: 40, 710381 Lot	ng: <u>-81, 412545</u> Datum: NAD 83
Soil Map Unit Name: Bhh Fl-Bahoda Channey loam, 25 to 70' Slopes, his	NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year?	No (If no, explain in Remarks)
Are Vegetation \underline{nb} , Soil \underline{nb} , or Hydrology \underline{nb} significantly disturbed?	"Normal Circumstances" present? Yes No
Are Vegetation $\underline{\underline{N0}}$, Soil $\underline{\underline{N0}}$, or Hydrology $\underline{\underline{n0}}$ naturally problematic? (If ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point location	ions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No Is the Sampled Area with	nin a Wetland? Yes No
	Too
Wetland Hydrology Present? Yes No	
Remarks: Upland datu for wois-PEM-CATMODZ	Da I
Data point taken within Transmission u	Me NOW.
Data point taken within Transmission L Entire site has been previously strip mined.	
HYDROLOGY	
	Country Indicators (minimum of two required)
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aenal Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No \ Depth (inches): Wetlat	nd Hydrology Present? Yes No 🗸
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	
Wetland hydrology Indicators are not p	resent.
100000000000000000000000000000000000000	
,,	

Tree Stratum (Plot size: 30)	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. Mone			Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2			2
3			Total Number of Dominant Species Across All Strata: (B)
4			Description (Section 1 Section That Are
5,			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6		31.	
7	_	= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by:
151			OBL species x 1 =
Sapling/Shrub Stratum 1. Rubus alleghenionsis	_) 20	V ENLL	FACW species x 2 =
1. Kubus allegheniensis		THO	FAC species x 3 = FACU species x 4 =
3.			UPL species x 5 =
4			Column Totals: (A) (B)
5			Prevalence Index = B/A =
6			
8.			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
10	- 20_	= Total Cover	3 - Prevalence Index is ≤3.0¹
~ 1			4 - Morphological Adaptations (Provide supporting
1. Danhana Spicata (Plot size: 5	_' 40	V FAW	data in Remarks or on a separate sheet) ——— Problematic Hydrophytic Vegetation¹ (Explain)
2. Fehinachlad Crus-galli	<u> 10</u>	J FAC	resolution rystophysic regeletter (Explain)
3.			¹ Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic. Definitions of Vegetation Strata:
5. 6.			Definitions of Vegetation Strata.
7,:			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8			diameter.
9			
11,			Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.	- 50	- T-4-1 O	DBH and greater than or equal to 3.28 ft (1 m) tall.
		= Total Cover	
201			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum 1. NON C (Plot size:)		of size, and woody plants less than 3.28 ft tall.
2.			
3,			Woody Vines - All woody vines greater than 3.28 ft in
4			height.
5. 6.			
		= Total Cover	:
			Undershide
			Hydrophytic Vegetation
			Present? Yes No
Name Addison Demandras //			<u> </u>
Vegetation Remarks: (Include photo numbers here or on a sepa			
Upland veg is dominant			
. 0			

Soil Profile Des	cription: (Describe to	the depth n	eeded to document			ne a bsenc e	of Indicators.)
Depth (inches)	Matrix Color (moist)	100	Color (moist)	Redox Featur	Type ¹	Loc ²	Texture	Remarks Coalretuse material
	P							
	ntration, D=Depletion,	RM=Reduce	d Matrix, MS=Maske	d Sand Grains.				"L=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :
Depleted Be Thick Dark S Sandy Muck MLRA 147,1 Sandy Gleye Sandy Redo Stripped Ma	don (A2) (A3) ulfide (A4) yers (A5) (A10) (LRR N) elow Dark Surface (A1 Surface (A12) ty Mineral (S1) (LRR I 148) ed Matrix (S4)	N,	Thin Dark Sur Loamy Gleyed Depleted Matr Redox Dark S Depleted Dark Redox Depres Iron-Mangane Umbric Surfac Piedmont Floo	ow Surface (S8 face (S9) (MLF I Matrix (F2) rix (F3) rix (F3) rix (F3) rix (F6) rix (F7) rix (F8) rix (F8) rix (F13) (MLRA odplain Soils (F3) (MLRA odplain Soils (MLR	2) (LRR N, M 136, 122) 19) (MLRA 1 1LRA 127, 14	ILRA 136) 48) 7)	2 cm M Coast F Piedmo (MLRA Very SI	luck (A10) (MLRA 147) Prairie Redox (A16) (MLRA 147, 148) Ont Floodplain Soils (F19) 136, 147) Inallow Dark Surface (TF12) Explain in Remarks)
Restrictive Lay	er (if observed):					Hydri Soil Pres	c	Yes No √
Depth (inche		fric S	oils not pr	esent.	Soils			tenion coal spal pile.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region Sampling Date: 9 17 2 Project/Site: Sampling Point: Wollo-Applicant/Owner: Section, Township, Range: Pike Tux Investigator(s): Local relief (concave, convex, none): ______ Slope (%) Landform (hilslope, terrace, etc.): Subregion (LRR or MLRA) NWI classification: N Soil Map Unit Name: Are climatic/hydrologic conditions on the site typical for this time of year? Are Vegetation n_0 , Soil n_0 **<u>No</u>** significantly disturbed? or Hydrology Are Vegetation <u>N</u>), Soil <u>N</u>0 , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes \ No Is the Sampled Area within a Wetland? Hydric Soil Present? Wetland Hydrology Present? Remarks: Wetland data for WOILE-PEM-CATZ Data point taken in forested area-unreclaimed stripmine. **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Primary Indicators (minimum of one is required, check all that apply) Sparsely Vegetated Concave Surface (B8) Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Moss Trim Lines (B16) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Dry-Season Water Table (C2) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Solls (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Thin Muck Surface (C7) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Microtopographic Relief (D4) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Aquatic Fauna (B13) Field Observations: Surface Water Present? Depth (inches): Water Table Present? Depth (inches): Wetland Hydrology Present? Saturation Present? Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology Indicators are B9, C3, D2, D5.

1. Accr rubrum 2.	Absolute) % Cover	Dominant Indicator Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: Dominant Species That Are Are (A)
3		= Total Cover	Total Number of Dominant Species 3 (B)
2			FACU species
Herb Stratum 1. Leans la Onyzones 2. Didens from also 3. 4. 5.	35	= Total Cover	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0³ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6. 7. 8. 9. 10. 11.	55	= Total Cover	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter. Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
Woody Vine Stratum 1. NUNL 2			Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines - All woody vines greater than 3.28 ft in height.
Vegetation Remarks: (Include photo numbers here or on a separate	-	-= Total Cover	Hydrophytic Vegetation Present? Yes No
Wetland veg is dominant - pas	sses th	ue domina	na tist

Soil Profile Description: (Describe to the depth	needed to document t			ne a bsenc e	e of Indicators.)	IR.
Depth Matrix (inches) Color (moist) %	Color (moist)	Redox Feature	es Type ¹	Loc²	Texture	Remarks
0-2 INK 312 100	Color (moist)	=			Sittlaam	- Normanio
7-110 N 3/ 80	7.54R34	201.			loam	
210 0 9 0	דוכחוכיו	41,			1000111	
	27	5.0			· 	
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# · · · · · · · · · · · · · · · · · · ·				-		
	=	- J				
		·				
	For Education				· ·	4
	E1/2					
	±21,			.=====		
	***					-
¹ Type: C=concentration, D=Depletion, RM=Reduc	od Matrix MS-Mankad	Sand Grains			² Location: PL=Pore Lin	ing M=Matrix
Type: C-concentration, D-Depletion, RM-Reduc	eo Mainx, MS-Maskeo	Sanu Grains.			Location. TE-Fore En	ing, M-Maulx.
Hydric Soil Indicators:					Indicators for Problem	natic Hydric Solls ³ :
Histosol (A1)	Dark Surface (S	S7)			2 cm Muck (A10)	(MLRA 147)
Histic Epipedon (A2)	Polyvalue Belov	w Surface (S8)	(MLRA 147	', 148)	Coast Prairie Red	ox (A16) (MLRA 147, 148)
Black Histic (A3)	Thin Dark Surfa	ice (S9) (MLR/	A 147, 148)		Piedmont Floodpla	ain Soils (F19)
Hydrogen Sulfide (A4)	Loamy Gleyed				(MLRA 136, 147)	
Stratified Layers (A5)	Depleted Matrix				Very Shallow Dark	, ,
2 cm Muck (A10) (LRR N)	Redox Dark Su				Other (Explain in F	Remarks)
Depleted Below Dark Surface (A11)	Depleted Dark					
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N,	Redox Depress Iron-Manganese) (LRR N. M	II RA 136)		
MLRA 147,148)	Umbric Surface			,		
Sandy Gleyed Matrix (S4)	Piedmont Flood			48)		
Sandy Redox (S5)	Red Parent Mat	terial (F21) (ML	RA 127, 14	7)		
Stripped Matrix (S6)						
³ Indicators of hydrophytic vegetation and wetl	and hydrology must be p	present, unless	s disturbed o	or problema	atic.	
Restrictive Layer (if observed):						
Туре:				Hydr	ic	/
Depth (inches):				Soil Pre	sent? Yes	No
Soil Description Remarks: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	-0			-		
Meets +	2					
				6		4
						a

	n Mountains and Piedmont Region
Project/Site: South Canton City/County: Std	rk(0, Sampling Date: 9 12 207
Applicant/Owner:	State: Sampling Point: WOLG-PEM-CATZ-UP
Investigator(s): Section, Town	nship, Range:
Landform (hilslope, terrace, etc.): hillsope Local relief (con-	cave, convex, none): Slope (%)
Subregion (LRR or MLRA): LRR Lat: 40.712452	Long: -81.412517 Datum: NAD 83
Soil Map Unit Name: Bhh F - Beth Sdd Channey loam, 25 to 10/	NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year?	No (if no, explain in Remarks)
Are Vegetation $\frac{10}{0.0}$, Soil $\frac{10}{0.0}$, or Hydrology $\frac{10}{0.0}$ significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation \(\frac{\pi\O}{\pi}\), Soil \(\frac{\pi\O}{\pi}\), or Hydrology \(\frac{\pi\O}{\pi}\) naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling points	nt locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	,
Hydric Soll Present? Yes No V Is the Sampled A	vea within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: Upland data for WOIL-PEM-CAT2	area has been previously Stripmined.
Data taken within forestal area - Entire	ara the secretion
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) — Oxidized Rhizospheres on Living Roots (C3	B) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Water Marks (B1) Presence of Reduced Iron (C4) Sodiment Deposits (P3) Presence of Reduced Iron (C4)	Crayfish Виломs (C8)
Sediment Deposits (B2) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (D5)	
Algal Mat or Crust (R4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Sturited or Stressed Plants (D1) Geomorphic Position (D2)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	
Iron Deposits (B5)	Geomorphic Position (D2)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Geomorphic Position (D2) Shallow Aquitard (D3)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches):	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No
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Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No

Species
Total Number of Dominant Species 3 (B)
Across All Strata:
Across All Strata:
Prevalence Index worksheet: Total Cover
OBL, FACW, or FAC:
Total % Cover of: Multiply by: OBL species
Total % Cover of: Multiply by: OBL species
OBL species
FACW species
FAC species
FACU species
Column Totals: (A) (B) Prevalence Index = B/A =
Prevalence Index = B/A =
Hudrophytic Vegetation Indicators:
Injurophytic vegetation marcators.
1 - Rapid Test for Hydrophytic Vegetation
2 - Dominance Test is >50%
= Total Cover 3 - Prevalence Index is ≤3.01
4 - Morphological Adaptations¹ (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.
Definitions of Vegetation Strata:
Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
DBH and greater than or equal to 3.28 ft (1 m) tall.
Total Cover
Herb - All herbaceous (non-woody) plants, regardless
of size, and woody plants less than 3.28 ft tall.
Westy Many All washusing greater than 2.28 4 in
Woody Vines - All woody vines greater than 3.28 ft in height.
- Inoigh.
Total Cover
4
Hydrophytic
Vegetation Present? Yes No
1.555111

Dophin Main's Redox Features (notes) 5. Color (moist) 5. Color (moist) 5. Type* Loc* Tecture Remarks D-Lype: C-concentration, D-Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C-concentration, D-Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. This color (A1) Historic (A1) Historic (A1) Bluck Historic (A1) Historic (A1) Historic (A1) Dark Surface (S7) Polyvatus Below Surface (S8) (MLRA 147, 148) Bluck Historic (A2) Polyvatus Below Surface (S8) (MLRA 147, 148) Bluck Historic (A2) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F8) Depleted Dark Surfac	Soil Profile Description: (Describe to	the depth ne	eeded to document			ne absen c e	of indicators	.)
ydric Soll Indicators: Histosol (A1)	Depth Matrix (inches) Color (moist)		Color (moist)			Loc ²	Texture	
Adric Soll Indicators: Histosol (A1)			5					
Adric Soll Indicators: Histosol (A1)								
Histosol (A1)	***	RM=Reduced	Matrix, MS=Maske	d Sand Grains.				
estrictive Layer (if observed): Type: Depth (inches): Soil Present? Yes No V	Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)		Polyvalue Beld Thin Dark Sur Loamy Gleyed Depleted Matr Redox Dark S Depleted Dark Redox Depres Iron-Mangane: Umbric Surfac Piedmont Floo	ow Surface (S8) face (S9) (MLR face (S9) (MLR face (F3) face (F6) face (F7) face (F7) face (F13) (MLR face (F1	2) (LRR N, M 136, 122) 19) (MLRA 1 LRA 127, 14	LRA 136) 48) 7)	2 cm N Coast Piedmo (MLRA Very S Other (Muck (A10) (MLRA 147) Prairie Redox (A16) (MLRA 147, 148) ont Floodplain Soils (F19) A 136, 147) hallow Dark Surface (TF12)
Type: Hydric Depth (inches): Soii Present? Yes No		n and wetland	d hydrology must be	present, unles	s disturbed o	r problema	tic.	
Hydric Soils not presentSoil sample taken on coal spoilpile	Туре:					1 -		Yes No
	oil Description Remarks:	nc Soil	s not bres	ientS	Soilsan	nple !	ta, hen o	n coal spoilpile
						8		

WETLAND DETERMINATION DATA F	ORM - Eastern Mountains and Piedmont Region
Project/Site: South Canton Ci	ty/County: Sturk Co Sampling Date: 9 12 2017
Applicant/Owner:	State: OH Sampling Point: W017 - PEM - CAT I
Investigator(s):	Section, Township, Range IKe Turk
Landform (hilslope, terrace, etc.):	Local relief (concave, convex, none): Slope (%)
Subregion (LRR or MLRA): Lat; 40.	13984 Long: -81,413483 Datum: NAD 83
Soil Map Unit Name: Bhh7FI - Bchsda Channery Jodm 2	5 to 70%. Slope - highwall NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks)
Are Vegetation \(\bigcap_{\infty} \), Soil \(\bigcap_{\infty} \), or Hydrology \(\bigcap_{\infty} \) significantly disturb	bed? Are "Normal Circumstances" present? Yes No
Are Vegetation 10, Soil 10, or Hydrology 10 naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes V	Is the Sampled Area within a Wetland?
	10 To Campion 7200 Internal 2
Wetland Hydrology Present? Yes No	
Remarks: Wetland datu for W017-PEM-	CATI.
Data point taken within maintain Entire area has been previously	ned transmission ROW.
Fiture axea hac been more styl	trip mined.
Chine and has been believed	off the trition
HYDROLOGY	
	Coopeday Indicators (minimum of two marries 4)
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) True Aquatic Plants (B1)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor	Water the state of
Saturation (A3) Saturation (A3) Oxidized Rhizospheres	
Water Marks (B1) Presence of Reduced In	
Sediment Deposits (B2) Recent Iron Reduction I	
Drift Deposits (B3) Thin Muck Surface (C7)	
Algal Mat or Crust (B4) Other (Explain in Remai	
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	,
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions) if qualishin:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	ilons), il avaliable.
Personal	
Wetland hydrology Indicators	aug 12 m and DS
WEHARD MY AYOLOGY MOLICATIVE	and Cholon by
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Tree Stratum (Plot size: 301	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominent Species That Are
1. None 2			OBL, FACW, or FAC: Total Number of Dominant Species Across All Strate: (A) (B)
4			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B
Sapling/Shrub Stratum 1. N ONC 2. 3.		= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 =
4. 5. 6. 7.			Column Totals: (A) (B) Prevalence Index = B/A =
8. 9. 10.			Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
Herb Stratum 1. LCLYSIA ON 2010ES 2. Scirpus appeninus 3. Phalanis arundinaled 4.	0 0 0	= Total Cover	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. Definitions of Vegetation Strata:
6			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
1		= Total Cover	Sapling/Shrub- Woody plants, excluding vines, less than 3 in DBH and greater than or equal to 3.28 ft (1 m) tall.
Voody Vine Stratum (Plot size: 5	_)		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
3			Woody Vines - All woody vines greater than 3.28 ft in height.
6		= Total Cover	Hydrophytic
			Vegetation Present? Yes No
regetation Remarks: (Include photo numbers here or on a separation Remarks: Veg is duminant	erate sheet). passa	es the domi	nancetist and vapid tist.
O			
			7

	escription: (Describe t	o the depth ne	eded to document t		ine absence	
Depth (inches)	Color (moist)	<u>%</u>	Color (moist)	Redox Features	Loc²	Texture Remarks
11-110	104K 21Z	100	104R3/6	30		Sittoim Clayloan
710	10.9/	100		·		Calegian
		: 		·	.——	
				· ·	-	· — — — — — — — — — — — — — — — — — — —
n-	- 12	·				
	*		\$			
-		DM-D-dueed	Markin MC-Marka	Cond Contra	V	² Location: PL=Pore Lining, M=Matrix.
	centration, D=Depletion,	, KIVI=Reduced	IVIAUIX, MO=MASKED	Sanu Grains.		
Hydric Soil Inc	licators:					Indicators for Problematic Hydrlc Soils ³ :
Histosol (/			Dark Surface (\$	S7) w Surface (S8) (MLRA 14	7 149\	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148)
Black Hist	pedon (A2) tic (A3)	3		ace (S9) (MLRA 147, 148)		Piedmont Floodplain Soils (F19)
	Sulfide (A4)	9	Loamy Gleyed			(MLRA 136, 147)
	Layers (A5)	3	Depleted Matrix			Very Shallow Dark Surface (TF12)
	k (A10) (LRR N)	:4\	Redox Dark Su			Other (Explain in Remarks)
	Below Dark Surface (A1 k Surface (A12)		Depleted Dark Redox Depress			
	icky Mineral (S1) (LRR I	N, .		e Masses (F12) (LRR N,	MLRA 136)	
MLRA 147				(F13) (MLRA 136, 122)	4.40\	
Sandy Gle Sandy Red	eyed Matrix (S4)	5 4		dplain Soils (F19) (MLRA terial (F21) (MLRA 127, 1		
	Matrix (S6)			ional (1 21) (MEIOV 127, 1	71)	
³ Indicators	of hydrophytic vegetati	on and wetland	d hydrology must be	present, unless disturbed	or problema	atic.
Restrictive La	ayer (if observed):					· · · · · · · · · · · · · · · · · · ·
Туре:					Hydr	dc /
Depth (inc	hes):				Soil Pre	sent? Yes No
oil Descripti	on Remarks:	var elem	w i = =		-	
ion Descripti	Me	ds F2	and $F3$.			
					12	
					2	
					X.	
					Z.	

WETLAND DETERMINATION DATA FORM - Eastern	Mountains and Piedmont Region
Project/Site: South Cantin City/County: Stat	YK Co. Sampling Date: 9 12 2017
Applicant/Owner:	State: Sampling Point: WOIT-FEM-CATI-UPC
	ship, Range: PIKe Two
	ave, convex, none): CONVEX Slope (%) 5/.
Subregion (LRR or MLRA): Lat: 40, 714041	Long: -81,413654 Detum: NAD 83
Soil Map Unit Name: Bhn F-Bohosa Channey loum, 25to 10/, Dlope	5 - Miahwall NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks)
Are Vegetation \(\int \int \) Soil \(\int \int \), or Hydrology \(\int \int \int \) significantly disturbed?	Are "Normal Circumstances" present? Yes V No
Are Vegetation () Soil (), or Hydrology () naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point	t locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	. /
Hydric Soil Present? Yes No Is the Sampled Ar	rea within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Data point taken forested area. Entire St	
Voland data to WOIT-PEM-CATI.	1. chrismiand
I have a I have taken SH	& has been Dreviously Strip Mirica
Data point taken torested area tymie su	101100
Doccor barri	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (С8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No V Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Management and the second and the se	Wetland Hydrology Present? Yes No ✓
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	wettand hydrology Present? Tes No _v
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
beside Necordes saw (steam gauge, monitoring well, actial priotos, previous hispections), if available.	1
B. J.	
Remarks:	cont
wetland hydrology Indicators cire not pre	CXCIC
J	
	17
	_
	Q.

201	Absolute	Dominant Indicator	Dominance Test worksheet:
1. Prunus serotina) % Cover	Species? Status	Number of Dominani Spacies That Are OBL, FACW, or FAC: (A)
2. 3.			Total Numbar of Dominant Specias Across All Strata: (B)
4			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6			
7	15	= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by:
1-1			OBL species x1 =
Sapling/Shrub Stratum (Plot size:	-) 20	V MAI	FACW species x 2 =
2 Flaxinus americana		J. FACT	FACU species x 3 = FACU species x 4 =
3		1160	UPL species x 5 =
4			Column Totals: (A) (B)
5. 6.			Prevalence Index = B/A =
7			Hydrophytic Vegetation Indicators:
8			1 - Rapld Test for Hydrophytic Vegetation
10	35	= Total Cover	2 - Dominance Test is >50%
	<u> </u>	= Total Cover	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size: _5'	_)		data In Remarks or on a separate sheet)
1. NINE			Problematic Hydrophytic Vegetation ¹ (Explain)
2.		· · · · ·	Indicators of hydric soil and wetland hydrology must
3. 4.			be present, unless disturbed or problematic.
5.			Definitions of Vegetation Strata:
6			
7. 8.			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
9.			
10			7 P II
11.			Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
16.		= Total Cover	Barrana grouter train or equal to 8.20 ft (1 ft) tall.
			Samuel Sa
Woody Vine Stratum (Plot size: 30)			Herb - All herbaceous (nori-woody) plants, regardless of size, and woody plants less than 3.28 ft tail.
1. Parthenocissus aunque folia	-, 10 -	Y FAW	of size, and woody plants less than 3.26 it tall.
2.			
3	-		Woody Vines - All woody vines greater than 3.28 ft in
5	¥N		height.
6			
	10	= Total Cover	4
			Hydrophytic
च			Vegetation
			Present? Yes No
Vegetation Demarks: (Include photo number have and	ato about)		
Vegetation Remarks: (Include photo numbers here or on a separa	216 SHEEL).		
Upland veg is dominant.			
'			

Depth	Matrix		1	Redox Features		T 10	
(inches)	Color (moist)	%	Color (moist)	% T	ype ¹ Loc ²	Texture	Remarks
-16	104R413	100					
						_ === ==	
pe: C=conce	entration, D=Depletion,	RM=Reduced	Matrix, MS=Masked S	Sand Grains.		² Location: PL=Pore L	ning, M=Matrix.
dric Soil Indi	cators:					Indicators for Proble	matic Hydric Soils ³ :
Depleted Bo Thick Dark Sandy Mucl MLRA 147, Sandy Gley Sandy Redo Stripped Ma	edon (A2) c (A3) Sulfide (A4) ayers (A5) (A10) (LRR N) elow Dark Surface (A1 Surface (A12) ky Mineral (S1) (LRR I 148) red Matrix (S4) ox (S5)	- - -	Thin Dark Surface Loamy Gleyed M Depleted Matrix Redox Dark Surf Depleted Dark S Redox Depressic Iron-Manganese Umbric Surface Piedmont Floods Red Parent Mate	Surface (S8) (ML ce (S9) (MLRA 14) latrix (F2) (F3) face (F6) urface (F7) ons (F8) Masses (F12) (LI (F13) (MLRA 136) lain Soils (F19) (I erial (F21) (MLRA	7, 148) RR N, MLRA 13 122) MLRA 148) 127, 147)	Piedmont Floodp (MLRA 136, 147) Very Shallow Dai Other (Explain in	dox (A16) (MLRA 147, 148) lain Soils (F19) rk Surface (TF12)
Type:						ydric Present? Yes	No
il Descriptio	on Remarks:	dric St	ils not pres	ent.		1 5 +1	
					h _e	E A	*
					27		
					27		
					20		

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region Sampling Date: 9 113 City/County: SHOY (Project/Site: Sampling Point: 4/018-PSS Applicant/Owner: Section, Township, Range: Investigator(s): Local relief (concave, convex, none): Landform (hilslope, terrace, etc.): Long: -81.418285 Subregion (LRR or MLRA) Soil Map Unit Name: NWI classification: N (If no, explain in Remarks) Are climatic/hydrologic conditions on the site typical for this time of year? , or Hydrology NO significantly disturbed? Are Vegetation 10, Soil 10 Are "Normal Circumstances" present? naturally problematic? (If needed, explain any answers in Remarks.) () , or Hydrology SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area within a Wetland? Hydric Soil Present? Wetland Hydrology Present? Remarks: Wetland data for 4/018-PSS-CATZ Data point taken with in Stripmine pit. **HYDROLOGY** Secondary Indicators (minimum of two required) Wetland Hydrology Indicators: Surface Soil Cracks (B6) Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Hydrogen Sulfide Odor (C1) High Water Table (A2) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Saturation (A3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Water Marks (B1) Crayfish Burrows (C8) Recent Iron Reduction in Tilled Soils (C6) Sediment Deposits (B2) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Thin Muck Surface (C7) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Other (Explain in Remarks) Geomorphic Position (D2) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Wetland Hydrology Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Wetland hydrology Indicators are A3, D2 and D5. Remarks:

Sampling Point: W018-PSS-CAT2

Tree Stratum (Plot size: 30)	Absolute	Dominant Indicator	Dominance Test worksheet:
) <u>% Cover</u>	Species? Status	Number of Dominant Species That Are
1. None		~ 	OBL, FACW, or FAC:
2			Total Number of Dominant Species
3			Across All Strata: (B)
4			F
5			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6		2	
7.			Prevalence Index worksheet:
		= Total Cover	Total % Cover of: Multiply by:
161			OBL species x 1 =
Sapling/Shrub Stratum (Plot size: \(\)	-) 20	1 17	FACW species x 2 =
1. Frangula amus 2. Sambucus niara	- 12		FACULT Provides x 3 =
2. 3011100003 1119100		7 170	FACU species x 4 = UPL species x 5 =
4.			Column Totals: (A) (B)
5			
6,			Prevalence Index = B/A =
7.			
8 ₀			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation
10.,	115	= Total Cover	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
- ĵ		- Total Gover	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot-size: 5)	_	data in Remarks or on a separate sheet)
mpattens capensis	<u> </u>	- Hach	Problematic Hydrophytic Vegetation ¹ (Explain)
2			
3			¹ Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			
7. 8.			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
9.			
10			
11			Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12	- 20		DBH and greater than or equal to 3.28 ft (1 m) tall.
	00	≃ Total Cover	
			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size: 50	ă.		of size, and woody plants less than 3.28 ft tall.
1. NMC	→ (£)		a dize, and vessy plants less than e.ze it tall.
2.			
3	2.2	5 10.1	Woody Vines - All woody vines greater than 3.28 ft in
4			height.
5			^
6.		- T-1-10	
		= Total Cover	
			Hydrophytic
			Vegetation
			Present?
Opportunities conditional appropriate in a part of the condition of t	(8)		
Vegetation Remarks: (Include photo numbers here or on a separa	ite sheet).		1 1
. Wetland veg is dominant-par	1550 = 1	Ladimina	ncetest
iversing veg 13 asminant-for	(2)C) [W. Ota III IV	1000
			-

Soil Profile Description: (Describe to the depth r	needed to document the indicator or confirm t	he absence of indicators.)
$\begin{array}{c c} \text{Depth} & \text{Matrix} \\ \text{(inches)} & \text{Color (moist)} & \% \\ \hline 0 - 3 & \text{IONR 3 II} & 100 \\ \hline 3 - \text{IO} & \text{N 4/} & \text{IOO} \\ \end{array}$	Redox Features Color (moist) % Type ¹	Loc² Texture	Remarks
¹Type: C=concentration, D=Depletion, RM=Reduce	ed Matrix, MS=Masked Sand Grains.		L=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 14' Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, N) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 127, 14) Red Parent Material (F21) (MLRA 127, 14)	2 cm M Coast F Piedmo (MLRA Very SI Other (MLRA 136)	Juck (A10) (MLRA 147) Prairie Redox (A16) (MLRA 147, 148) ont Floodplain Soils (F19) ont 136, 147) hallow Dark Surface (TF12) Explain in Remarks)
Restrictive Layer (if observed): Type: Depth (inches):	and hydrology must be present, unless disturbed	Hydric	Yes No
Soil Description Remarks: Mccts	F2,		
			3 × X

WETLAND DETERMINATION DATA FORM - Eastern Mou	
Project/Site: South Canton City/County: Stark	Sampling Date: 9 3 2017
1.70	State: OH . Sampling Point: WOID PEM-CATZ
Investigator(s): Section, Township, Re	ange: Pike Tup-
Landform (hilstope, terrace, etc.): Local relief (concave, co	
	ong: -81,419245 Datum: NAD83
Soil Map Unit Name: Ohr At 1- Beth sad rits, surtace mine 25 to 10%	NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks)
4	"Normal Circumstances" present? Yes No needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point local	
/	
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No Is the Sampled Area wit	thin a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: Welland data point for WOIB-PEM-CATZ.	
Data point taken in old Strip mine pit	THE
Data park tooks	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soll Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Denomita (D2)	Saturation Visible on Aerial Imageny (CQ)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
	
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Other (Explain in Remarks) Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (Inches): Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Wetlation Present? Yes No No No	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Wetlatinches capillary fringe) Wetlatin Present? Yes No Depth (inches): Wetlatin Present? Yes No	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Wetlation Present? Yes No Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Wetian Present? Yes No Depth (inches): Wetian (Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) iron Deposits (B5) inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) iron Deposits (B5) inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) iron Deposits (B5) inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) iron Deposits (B5) inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) iron Deposits (B5) inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) iron Deposits (B5) inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) iron Deposits (B5) inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) iron Deposits (B5) inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Surface Water Present? Yes No Depth (Inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetia (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) and Hydrology Present? Yes No

Tree Stratum	(Plot size: 30)	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. NINC	(1 101 5126	7 78 00461	Diction:	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
			×	
				Total Number of Dominant Species Across All Strata: (B)
3				(B)
		- 7		Percent of Dominant Spacies That Are OBL, FACW, or FAC: (A/B)
				OBE, PACIV, OF PAC.
7.		200	- R	Prevalence Index worksheet:
			= Total Cover	Total % Cover of: Multiply by:
C. II. (Ch. of Chrotum	(Plot size: \5			OBL species x 1 = FACW species x 2 =
Sapling/Shrub Stratum 1.	r I can a	, 10	V Fach	FAC species x3 =
2. Franciula	alnus		Fac	FACU species x 4 =
3				UPL species x 5 =
				Prevalence Index = B/A =
8			-	Hydrophytic Vegetation Indicators:
9				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
10		70	= Total Cover	3 - Prevalence Index is ≤3.0 ¹
	C1			4 - Morphological Adaptations (Provide supporting.
Herb Stratum	(Plot size:			data in Remarks or on a separate sheet)
1. OCH ALS CA	(perinus	10	THOU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Impattens	anchsis	20	Fach	Indicators of hydric soil and wetland hydrology must
4. Persicaria s		_10_	N OOL	be present, unless disturbed or problematic.
5	AND REAL PROPERTY.			Definitions of Vegetation Strata:
.,) - () - () - () - () - () - () - () -	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
9.				
10				
				Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12		705	= Total Cover	DBH and greater than or equal to 3.28 ft (1 m) tall.
	201			Herb - All herbaceous (non-woody) plants, regardless
Voody Vine Stratum	(Plot size: 301)		of size, and woody plants less than 3.28 ft tall.
1. NWE				
3.	X V			Woody Vines - All woody vines greater than 3.28 ft in
4				height.
5				translate from the foods of
6,			= Total Cover	
			- TOLET GOVE	,
				Hydrophytic
				Vegetation
3		- 2	4	Present? Yes No
/egetation Remarks: (Includ	de photo numbers here or on a sep	arate sheet).		
			1.	ace tot
Wettendrier	g is dorninant	DUSSES	adminar	ICI (CO)
In allowed has	J 12 MAINIMINA	F	FI .	9) - 11 a a a a
* *				
	H, L . H		7	
1 4 T		. 4	N - 22	
			-27	

Soil Profile Description: (Describe to the depth	needed to document the indicator or confirm t	the absence of Indicators.)
Depth (inches) Color (moist) % 2-8 IONR41 70 8-14 N 4 100	Redox Features Color (moist)	Loc² Texture Remarks Si Hod M lod M Lod M
¹ Type: C=concentration, D=Depletion, RM=Reduce	d Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Hydric Soll Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 14 Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, I) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 127, 14)	2 cm Muck (A10) (MLRA 147) Coast Praine Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) A 148) A 148) 147)
Restrictive Layer (if observed): Type: Depth (inches):	nd hydrology must be present, unless disturbed	Hydric Soli Present? Yes No
Soli Description Remarks: Mceks F	2 and F3.	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region Sampling Date: 913 Project/Site: Sampling Point: W018 Applicant/Owner: Section, Township, Range: Investigator(s): Local relief (concave, convex, none): Landform (hilslope, terrace, etc.): Subregion (LRR or MLRA Soil Map Unit Name: NWI classification: (If no, explain in Remarks) Are climatic/hydrologic conditions on the site typical for this time of year? no Are Vegetation \underline{NO} , Soil \underline{NO} , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Are Vegetation $\underline{\cap}()$, Soil $\underline{\cap}$, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area within a Wetland? Hydric Soil Present? Wetland Hydrology Present? Upland data for WOI8-PSS-CATZ and WOI8-PEM-CATZ. Remarks: Data point taken with in finested area. Entire area has been premously Strip mined **HYDROLOGY Wetland Hydrology Indicators:** Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Primary Indicators (minimum of one is required, check all that apply) Sparsely Vegetated Concave Surface (B8) Surface Water (A1) True Aquatic Plants (B14) Drainage Patterns (B10) Hydrogen Sulfide Odor (C1) High Water Table (A2) Moss Trim Lines (B16) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Water Marks (B1) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Sediment Deposits (B2) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Thin Muck Surface (C7) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Other (Explain in Remarks) Geomorphic Position (D2) Iron Deposits (B5) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Microtopographic Relief (D4) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Aquatic Fauna (B13) Field Observations: Surface Water Present? Depth (inches): Water Table Present? Depth (inches): **Wetland Hydrology Present?** Saturation Present? Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: wetland hydrology is not present.

1. Prunus scrotind 2. Acer rubrum 3.	Absolute % Cover 20 20	Dominant Indicator Species? Factor Fa	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strate: Percent of Dominant Species That Are
5. 6. 7. Sapling/Shrub Stratum (Plot size: 5) 1. (2000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	40 40 15 20 10	= Total Cover	OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Multiply by: OBL species x 1 = FACW species x 2 = FACW species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) (B)
6	 	= Total Cover	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter. Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4	sheet).	= Total Cover	Woody Vines - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
Upland veg is dominant			

Soil Profile Description: (Describe to the de	oth needed to document the indicator or confirm the	e absence of indicate	ors.)
Depth Matrix	Redox Features Color (moist) % Type ¹	Loc² Texture	e Remarks
¹ Type: C=concentration, D=Depletion, RM=Re	duced Matrix, MS=Masked Sand Grains.	² Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indicato	rs for Problematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Restrictive Layer (if observed): Type:	Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147 Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, N Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 1 Red Parent Material (F21) (MLRA 127, 14	, 148) Coa Pie (ML Oth Oth Oth 136) 48)	m Muck (A10) (MLRA 147) ast Prairie Redox (A16) (MLRA 147, 148) dmont Floodplain Soils (F19) LRA 136, 147) y Shallow Dark Surface (TF12) er (Explain in Remarks)
Depth (inches):		Soil Present?	Yes No V
Soil Description Remarks:	ic Soils are not present.		
			¥ 0
	₩		

- " 0 1	A FORM - Eastern Mountains and Piedmont Region
Project/Site: South Canton	City/County: Stark Co. Sampling Date: 913 2017
Applicant/Owner:	State: Sampling Point: W019 - PEM - CAT2
Investigator(s): Landform (hilslope, terrace, etc.):	Section, Township, Range: PIKE Tup- Local relief (concave, convex, none): CONCAVE Slope (%)
	708921 Long: -81, 418127 Datum: NAD 83
Soil Map Unit Name: Gac-Gilpin Sitt Joan, 8 to 15	(. SlapeS NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	
Are Vegetation \bigcap . Soil \bigcap , or Hydrology \bigcap significantly dis	
) () () (wing sampling point locations, transects, important features, etc.
	anig camping point coancie, a ancoar, in province of the coancie o
Hydrophytic Vegetation Present? Yes V	is the Sampled Area within a Wetland?
Hydric Soll Present? Yes No	is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: Wolland data point for W019	-PEM-CATZ.
Data point taken in old stripr	nine pit.
	1
HYDROLOGY	
	Secondary Indicators (minimum of two required)
Wetland Hydrology indicators: Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants	
High Water Table (A2) Hydrogen Sulfide Od	dor (C1) Drainage Patterns (B10)
	mes on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduce SedIment Deposits (B2) Recent Iron Reduction	
SedIment Deposits (B2) Recent Iron Reduction Drift Deposits (B3) Thin Muck Surface (6	
Algal Mat or Crust (B4) Other (Explain in Rei	
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9) Aquatic Fauna (B13)	Microtopographic Relief (D4) FAC-Neutral Test (D5)
	
Field Observations:	2"
Surface Water Present? Yes V No Depth (inches): Water Table Present? Yes No Depth (inches):	
	Wetland Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present 1 1es NO
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	pections), if available:
Remarks:	
Wetland hydrology Indicators	dvo Al A3 (3, D2 and D5.
Wellard Hydrology marchions	Mix ray as it
	1) 7
2	
	e II

Tree Stratum (Plot size: 3)	Absolute	Dominant Indicator	Dominance Test worksheet:
1. Populus orangiacniata) % Cover	Species? Status	Number of Dominent Species That Are OBL, FACW, or FAC:(A)
2			Total Number of Dominant Species
3			Across All Strate:(B)
5			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6			Prevalence Index worksheet:
7	10_	= Total Cover	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)		OBL species x 1 = FACW species x 2 =
1_NON-C			FAC species x 3 =
3			FACU species x 4 = UPL species x 5 =
4.5.9.			Column Totals: (A) (B)
6			Prevalence Index = B/A =
8			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
الشعال وحمالك		= Total Cover	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size: 5/	⁻¹ 55	المام	data in Remarks or on a separate sheet)
2 Impatien raphysis	- 52	FACE	Problematic Hydrophytic Vegetation ¹ (Explain)
3.			1 Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8.			diameter.
9			
1112.			Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
	70	= Total Cover	
201			Herb - All herbaceous (non-woody) plants, regardless
Moody Vine Stratum 1. NUNC (Plot size: 30')		of size, and woody plants less than 3.28 ft tall.
2			Woody Vines - All woody vines greater than 3.28 ft in
3. 4.			height.
5			
***************************************	0	= Total Cover	2
			Hydrophytic
			Vegetation Present? YesNo
/egetation Remarks: (Include photo numbers here or on a sepa	rate sheet)		
Vegetation Remarks: (Include photo numbers here or on a sepa	-0055e.S	the domir	ance tost.
wedara veg is a commart.			
V			

Soll Profile Description: (Describe to the depti	h needed to document the Indicator or confin	n the absence of Indicators.)	
Depth (inches) Color (moist) % 3-8 10 10 10 10 10 10 10 10 10 10 10 10 10	Redox Features Color (moist) % Type	Loc ² Texture lodm Claylour	Remarks
¹Type: C=concentration, D=Depletion, RM=Redu	ced Matrix, MS=Masked Sand Grains.	²Location: PL	=Pore Lining, M=Matrix.
Hydric Soll Indicators:		Indicators for	Problematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA Thin Dark Surface (S9) (MLRA 147, 14) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR MUmbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 127, 122) Red Parent Material (F21) (MLRA 127, 123)	147, 148)	ck (A10) (MLRA 147) rairie Redox (A16) (MLRA 147, 148) at Floodplain Soils (F19) 36, 147) allow Dark Surface (TF12) explain in Remarks)
Restrictive Layer (if observed):	4		
Type: Depth (inches):		_ Hydric _ Soil Present? Y	es No
Soil Description Remarks:	F2, F3.	* × × ?	5 S
		+	

WETLAND DETERMINATION DATA FORM - Eastern M	ountains and Piedmont Region
Project/Site: South Canty City/County: Stark	Sampling Date: 9 3/20\7
Applicant/Owner:	State: OH Sampling Point: W019-PEM-CAT2-UP
Investigator(s): Section, Township	o, Range: Pike Tup
Landform (hilslope, terrace, etc.): Local relief (concave	
Subregion (LRR or MLRA); Lat: 40.708859	Long: -81, 418208 Datum: NAD 85
Soll Map Unit Name: GaC-Gilpin Sitt John 8 to 15 1. Stopes	NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year?	No (If no, explain in Remarks)
The vegetation with the same and the same an	Are "Normal Circumstances" present? Yes V No
110	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point to	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	/
Hydric Soil Present? Yes No Is the Sampled Area	within a Wetland? Yes No
Wetland Hydrology Present? Yes No/	
Remarks: Upland data for Woia-PEM-CATZ.	
Data point taken within fivested great	. Entire SHc has been previously
Strip mined.	·
CI A WANTED TO	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2) Crayfish Burrows (C8)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Craynan Burrows (66)
Deft Deposite (P2) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Alral Mat or Crust (B4) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5) Other (Explain in Remarks)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations:	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wincludes capillary fringe)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wincludes capillary fringe)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No
Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) //etland Hydrology Present? Yes No

1. Acer rubrum 3	s 	Species? Status FacU Fac	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: (A)
Sapling/Shrub Stratum 1. Nosd Mu Hitlord 2. Quercus Yubyum 3. Sasafras albrum 4. Fraxinus americand 5.		= Total Cover Y FACU N FACU Y FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: 20 / (A/B) Prevalence Index worksheet: Multiply by: Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) (B)
6. 7. 8. 9. 10. Herb Stratum 1. Attana petiolata 2. 3. 4. 5.		= Total Cover	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata:
6. 7. 8. 9. 10. 11. 12. Woody Vine Stratum 1.			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter. Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vines - All woody vines greater than 3.28 ft in
4		= Total Cover	Hydrophytic Vegetation Present? YesNo
Vegetation Remarks: (Include photo numbers here or on a separate Upland Veg IS dominant.		S.	

	epth needed to document the Indicator or con	firm the absence o	of indicators.)
Depth Matrix	Redox Features 6 Color (moist) % Ty	pe ¹ Loc ²	Texture Remarks
(inches) Color (moist) 9	Color (moist) % Ty	DE LUC	SiHam
			2
¹ Type: C=concentration, D=Depletion, RM=R	educed Matrix, MS=Masked Sand Grains.		² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Dark Surface (S7) Polyvalue Below Surface (S8) (MLI Thin Dark Surface (S9) (MLRA 147 Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LR Umbric Surface (F13) (MLRA 136, Piedmont Floodplain Soils (F19) (MRA 136) Red Parent Material (F21) (MLRA 20)	R N, MLRA 136) 122) ILRA 148) 127, 147)	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
"Indicators of hydrophytic vegetation and	wetland hydrology must be present, unless dist	urbed or problemati	G.
Restrictive Layer (if observed): Type: Depth (inches):		Hydrid Soil Pres	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Soil Description Remarks:	C Soils not present.		
\$ a			

WETLAND DETERMINATION DAT	A FORM - Eastern Mountains and Piedmont Region
Project/Site: South Canton	City/County: Stark Co. Sampling Date: 913/2017
Applicant/Owner:	State: Sampling Point: N020 - PSS - CATMOD2
Investigator(s):	Section, Township, Range: PIKe Tuy -
Landform (hilslope, terrace, etc.):	Local relief (concave, convex, none): CMOVC Slope (%)
	70,7902 Long: -81,419581 Datum: NAD 83
Soil Map Unit Name: Gac-Gilpin Si Hlam, 8 to 19	5 1. StopeS NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year Are Vegetation 0 , Soil 0 , or Hydrology 0 significantly d	
Are Vegetation $\overbrace{00}$, Soil $\overline{10}$, or Hydrology $\underline{10}$ significantly defined $\underline{10}$, Soil $\underline{10}$, or Hydrology $\underline{10}$ naturally probability.	
110	owing sampling point locations, transects, important features, etc.
	,,,,,,,,,,,,,,
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No	
Data pant taken in forest Stripmined - Unreclaimed	col area Entire site have been previously
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) True Aquatic Plants	Surface Soil Cracks (B6) s (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide C	
- vocasion	eres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduc	ced Iron (C4) Dry-Season Water Table (C2)
	tion in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface	270 3 6/4 3 4 4 4 4
Algal Mat or Crust (B4) Other (Explain in R Iron Deposits (B5)	emarks) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) No Depth (inches) No Depth (inches)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in Remarks:	speciions), ii available.
	ers are A3, C3, D2 and D5.

-) 30) 30 	= Total Cover Fac Fac Fac Fac Fac Cover Cover Cover	Number of Dominant Species That Are OBL, FACW, or FAC: Total Numbar of Dominant Spacies Across All Strata: Percent of Dominant Spacies That Are OBL, FACW, or FAC: Total % Cover of: Total % Cover of: Multiply by: OBL species FACW species FACW species FACU species Y 4 = UPL species UPL species Y 5 = Column Totals: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ Indicators of hydric soil and wetland hydrology must
555	Fac Hacky Fac	Across All Strata: Percent of Dominant Spacies That Are OBL, FACW, or FAC: Total % Cover of: Multiply by: OBL species FACW species FACW species FACU species LUPL s
555	Fac Hacky Fac	Across All Strata: Percent of Dominant Spacies That Are OBL, FACW, or FAC: Total % Cover of: Multiply by: OBL species FACW species FACW species FACU species LUPL s
555	Fac Hacky Fac	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species FACW species FACW species FACU species FACU species WHUPL spe
555	Fac Hacky Fac	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species FACW species FACW species FACU species FACU species WHUPL spe
555	Fac Hacky Fac	Total % Cover of: OBL species FACW species FAC species FAC species FACU species V 4 = UPL species Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide Supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ 1 Indicators of hydric soil and wetland hydrology must
555	Fac Hacky Fac	Total % Cover of: OBL species FACW species FAC species FAC species FACU species V 4 = UPL species Column Totals: (A) (B) Prevalence Index = B/A = Hydrophytic Vegetation 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide Supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ 1 Indicators of hydric soil and wetland hydrology must
555	Hack Fac	FACW species
555	Hack Fac	FAC species
55	Hack Fac	FACU species
55		UPL species x 5 =
	= Total Cover	Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric Soil and wetland hydrology must
	= Total Cover	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric Soil and wetland hydrology must
	= Total Cover	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0⁴ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must
	= Total Cover	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0⁴ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must
	= Total Cover	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0⁴ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or or a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must
	= Total Cover	3 - Prevalence Index is ≤3.0 ⁴ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or or a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must
	<u> </u>	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) Indicators of hydric soil and wetland hydrology must
	Y 06	Problematic Hydrophytic Vegetation ¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must
		¹ Indicators of hydric soil and wetland hydrology must
		I the received contains discorded as acadelaneatte
		be present, unless disturbed or problematic. Definitions of Vegetation Strata:
		Definitions of Vegetation Strate.
		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more i
		diameter.
		Sapling/Shrub- Woody plants, excluding vines, less than 3 in
- 10	= Total Cover	DBH and greater than or equal to 3.28 ft (1 m) tall.
	- Total Cover	ment that is a second
		Herb - All herbaceous (non-woody) plants, regardless
_)		of size, and woody plants less than 3.28 ft tall.
		Woody Vines - All woody vines greater than 3.28 ft in
-50		height.
	-	
	= Total Cover	
		Undraubada
		Hydrophytic Vegetation
		Present? Yes V No No
note at and		
		1 1 1
nt - bo	ISSES HAD C	dominance test.
	7,110 CV	
2 - "		
(#		
	orate sheet).	Total Cover

Soil Profile De	escription: (Describe to	the depth n	eeded to document t	he indicator or	confirm the	absence	of indicators.)	
Depth	Matrix			Redox Features				
(inches)	Color (mojst)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	1048314	100					Sittleam	
2-110	10x12 411	70	1/NR4110	30			Clayloam	
<u> ۱۹۰</u>	1040 11		TO TO TO	. <u> </u>			Chagianin	
							<u></u>	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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				1.0				
K T	*	.4		* *				
	w 							
	·							
¹ Type: C=conc	entration, D=Depletion, I	RM=Reduced	Matrix, MS=Masked	Sand Grains.			² Location: PL=Pore L	ining, M=Matrix.
0.011	A SERVICE AND ASSESSED AND ASSESSED ASSESSEDA		I,		- "			
Hydric Soil Ind	licators:						Indicators for Proble	ematic Hydric Soils ³ :
Histosol (A	A1)		Dark Surface (S	67)			2 cm Muck (A10) (MLRA 147)
Histic Epip				v Surface (S8) (N	AI RA 147 1	48)		dox (A16) (MLRA 147, 148)
						40,		
— Black Histi			AV DOM	ce (S9) (MLRA 1	147, 140)		Piedmont Floods	
	Sulfide (A4)		Loamy Gleyed I				(MLRA 136, 147	
Stratified L	ayers (A5)		Depleted Matrix	(F3)			Very Shallow Da	rk Surface (TF12)
2 cm Muck	(A10) (LRR N)		Redox Dark Sur	rface (F6)			Other (Explain in	Remarks)
Depleted E	Below Dark Surface (A11	1)	Depleted Dark S	Surface (F7)				
	Surface (A12)		Redox Depress					
	cky Mineral (S1) (LRR N			e Masses (F12) (LRR N. MLF	RA 136)		
MLRA 147		,		(F13) (MLRA 13		,		
	yed Matrix (S4)			plain Soils (F19)		Λ.		
Sandy Red			Red Parent Mat	erial (F21) (MLR	A 127, 147)			
Stripped M	latrix (S6)							
3Indicators	of hydrophytic vegetation	iii and watlam	d builesteen mount be a		ة در الرواسية.		t _w	
muicators	or riyuropriyac vegetaac	n and wellan	u nyarology must be p	present, uniess o	isturbed or p	orobiemau	ic.	
Restrictive La	yer (if observed):							
Type:						Hydrid		
							12	
Depth (inch	nes):					Soil Pres	ent? Yes _	No
Soil Description	on Demarke:							
Son Description	M .	cts F	2					
	1 1-6	C12 1),					
			± °	**	65			
								1 3
				2				
8	E 22	(*)20)		884		4.0	22.40	
2. 7. 1	10	9		H	00	.4 2	£ 6	F (8)
				7.1	23			
		12						
			N H H					
			0.00					1 to 1 to 1

WETLAND DETERMINATION DATA FORM - East	tern Mountains and Piedmont Region
Project/Site: South Canton City/County: 5	Stark Co. sampling Date: 9 13 2017
Applicant/Owner:	State: OH Sampling Point: NO20-PSS-ATTMOS
Investigator(s): Section,	Township, Range: PIKE TWO.
	(concave, convex, none): MMX Slope (%) ZO
Subregion (LRR or MLRA): LRR Lat: 40, 707963	Long: - 81, 419453 Datum; NAD 83
Soil Map Unit Name: GdC-Gilpin SiH Joum, 8 to 15 1. Sty	NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year?	No (If no, explain in Remarks)
Are Vegetation 10, Soil 10, or Hydrology 10 significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation 10, Soil 10, or Hydrology 10 naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling	point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No V Is the Sample	led Area within a Wetland?
Wetland Hydrology Present? Yes No	
Data point taken in forested area - Entire	re stitutes been previously strip mined.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) . Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Root	
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C	C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Weter-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availa	ble:
Remarks:	
Watland hydrology is not present.	
To color of the manager of the color	
	A . W

Tree Stratum	(Plot size: 30)	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. Quercus ru	aum	20	y Facl	Number of Dominent Species That Are OBL, FACW, or FAC: (A)
2 Fagus gra	ndifslia	15	Y FacU	
3.		7.1	171.2	Total Number of Dominant Species Across All Strate: (B)
5				Percent of Dominent Species That Are OBL, FACW, or FAC: (A/B)
6				
7.		00		Prevalence Index worksheet:
		25	= Total Cover	Total % Cover of: Multiply by:
	(Plot size: 5	940		OBL species x1 =
1. NOSCI MUHIF	Y (Plot size: 1)	-120	V FacU	FACW species x 2 = FAC species x 3 =
2.	16000	70	1000	FACU species x 4 =
2	±.7			UPL species x 5 =
4.	Mary Indiana and Mary			Column Totals: (A) (B)
				Disardinas Index o D/A o
		. —		Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
9.				1 - Rapid Test for Hydrophytic Vegetation
10	5 3	70		2 - Dominance Test is >50%
		20	= Total Cover	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum	(Plot size:	1		data in Remarks or on a separate sheet)
1. NON-C				Problematic Hydrophytic Vegetation ¹ (Explain)
2.				
		. —		1 Indicators of hydric soil and wetland hydrology must
4		.—		be present, unless disturbed or problematic. Definitions of Vegetation Strata:
				Definitions of Vegetation Strata.
7.				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8.	7			diameter.
9				
10.		·		
12.				Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
179			= Total Cover	
2				bucus.
1922 0 300 90 V 3	20'	N		Herb - All herbaceous (non-woody) plants, regardless
1. Par Hillinous	(Plot size: 30	15	V FACU	of size, and woody plants less than 3.28 ft tall.
2.	20 quinque lister		1.100	
3,				Woody Vines - All woody vines greater than 3.28 ft in
4				height.
5,			-	Propries and the second of the
0		15	= Total Cover	
			20101	
				Hydrophytic
	a a		±1 =	Vegetation No. No. No.
				Present? Yes No V
Vegetation Remarks: (Include	e photo numbers here or on a separat	te sheet).		<u> </u>
Upla	nd veg is dorning	iant.		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
-		v 2		
1 1	t d e			
" "		X 1 8	2 - 2	
A Committee of the Comm		7		
The state of		1	- 1 1	

Sampling Point: W020 - PSS - (ATAW)2-

Depth Matrix		Redox Featur	res			
(inches) Color (moist) % 0-10 10484[3 100	Color (moist)		Type ¹	Loc ²	Sı#	Remarks
				1 (*)		
ype: C=concentration, D=Depletion, RM=Reduced N	fatrix, MS=Masked	Sand Grains.			²Location: PL=Pore	Lining, M=Matrix.
ydric Soil Indicators:	<u> </u>				Indicators for Prob	lematic Hydric Solls ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Dark Surface (S Polyvalue Below Thin Dark Surfac Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi Iron-Manganese Umbric Surface Piedmont Flood Red Parent Matrix	v Surface (S8 ce (S9) (MLR Matrix (F2) (F3) face (F6) Surface (F7) ions (F8) e Masses (F13) (MLRA plain Soils (Fenal (F21) (M	2) (LRR N, M 136, 122) 19) (MLRA 1 LRA 127, 14	LRA 136) 48) 7)	Coast Praine F Piedmont Floo (MLRA 136, 14 Very Shallow I Other (Explain	Dark Surface (TF12)
estrictive Layer (if observed): Type: Depth (inches):				Hydrid Soil Pres		No
oli Description Remarks:	cSoits ar	e not	presen	+ .		
						*
		. 15	3 as			

APPENDIX C Primary Headwater Habitat Evaluation (HHEI) Data Forms



ChieEPA

Primary Headwater Habitat Evaluation Form

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HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION AFP-SOUTH CANTON RIVER BASIN WSCOWALAS K DRAINAGE AREA (mi2) 0.000 6 Sq. MI. SITE NUMBER LENGTH OF STREAM REACH (ft) 200 LAT. 40, 71411 LONG. 814549 RIVER CODE _____ RIVER MILE 500 SCORER KLV COMMENTS NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions □ NONE / NATURAL CHANNEL DRECOVERED □ RECOVERING □ RECENT OR NO RECOVERY MODIFICATIONS: SUY SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric TYPE **TYPE PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] BOULDER (>256 mm) [16 pts] LEAF PACKWOODY DEBRIS [3 pts] Substrate FINE DETRITUS [3 pts] BEDROCK [16 pt] Max = 40пп COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] (B) Total of Percentages of A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth 2. evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 5 cm - 10 cm [15 pts] > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts] > 10 - 22.5 cm [25 pts] COMMENTS MAXIMUM POOL DEPTH (centimeters): BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): Width > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13") [25 pts] ≤ 1.0 m (≤ 3'3") [5 pts] Max=30 > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS AVERAGE BANKFULL WIDTH (meters) This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\triangle NOTE: River Left (L) and Right (R) as looking downstream\$ FLOODPLAIN QUALITY RIPARIAN WIDTH (Most Predominant per Bank) (Per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row пп Narrow <5m Residential Park New Field Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 0.5 STREAM GRADIENT ESTIMATE

Moderate (2 ft/100 ft)

☐ Moderate to Severe

Severe (10 ft/100 ft)

Flat (0.5 ft/100 ft)

☐ Flat to Moderate

QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form) DOWNSTREAM DESIGNATED USE(S)
DOWNSTREAM DESIGNATED LISE(S)
WWH Name: Distance from Evaluated Stream 0.70 mile
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
GS Quadrangle Name: Bolivar allaynistary NRCS Soil Map Page: NRCS Soil Map Stream Order
inty: Stark Co. Township/city: PIKC Tup.
MISCELLANEOUS
e Flow Conditions? (Y/N): Date of last precipitation: 95207 Quantity: 4.25"
tograph Information:
vated Turbidity? (Y/N): Name
re samples collected for water chemistry? (Y/N): M (Note lab sample no. or id. and attach results) Lab Number;
d Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
ne sampling reach representative of the stream (Y/N) If not, please explain:
itional comments/description of pollution impacts:
PIOTO FAMILIATION
BIOTIC EVALUATION
ormed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the si ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Observed? (VAL) N Voucher? (VAL) N Solemenders Observed? (VAL) N Voucher? (VAL) N
Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Observed? (Y/N) Obse
Observed? (Y/N) \(\frac{\text{Voucher?}}{\text{V/N}} \) \(\frac{\text{V/N}}{\text{Voucher?}} \) \(\frac{\text{V/N}}{
nments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
nments Regarding Biology:
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DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
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Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION AFF SOUTH OF STREAM REACH (#) 85 DATE 9 7 (2017 SCORER KLV	RIVER BASIN TUSCARAWAS LAT. 40.71445 LONG. 81.41924 RM	DRAINAGE AREA (mi²) 0.0354.ml
	TURAL CHANNEL LECOVERED TREC	Ohio's PHWH Streams" for Instructions
(Max of 40). Add total number of significa-	O (A) (A)	PERCENT Y DEBRIS [3 pts] pts] HHEI Metric Points Substrate Max = 40
evaluation. Avoid plunge pools from road > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]		one box): Max = 30
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]		Ek ONLY one box): 73"- 4'8") [15 pts] Bankfull Width Max=30
RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	This Information must also be completed. LAIN QUALITY	ed I Right (R) as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction
Stream Flowing Subsurface flow with isolated pool COMMENTS SINUOSITY (Number of bends po	s (Interstitial)	
□ None □ □ 0.5 □	1.0 25 2.0 1.5	☐ 3.0 ☐ >3

QHEI PERFORMED? - TYes X No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	D. St. miles
LOWH Name: BOAT KUN	Distance from Evaluated Stream Distance from Evaluated Stream
J CWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE	
GGS Quadrangle Name: Bolivar & Waynesburg NR	RCS Soil Map Stream Order
ounty: Stark Co. Township	rcity. Pike Tusp.
MISCELLANEOUS	- · · · ·
ase Flow Conditions? (Y/N): Date of last precipitation:	2017 Quantity: 425"
otograph Information:	
evated Turbidity? (Y/N): N Canopy (% open): 25/	
ere samples collected for water chemistry? (Y/N): (Note lab sam	nple no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
the sampling reach representative of the stream (Y/N)	se explain:
dditional comments/description of pollution impacts:	
dditional comments/description of pollution impacts:	
BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observegs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Marketing of the control of	lections optional. NOTE: all voucher samples must be labeled with the site to the Primary Headwater Habitat Assessment Manual) ved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she she Observed? (Y/N) Voucher? (Y/N) Salamanders Observegs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Minimum (Y/N)	lections optional. NOTE: all voucher samples must be labeled with the site to the Primary Headwater Habitat Assessment Manual) ved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
BIOTIC EVALUATION If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Mo	lections optional. NOTE: all voucher samples must be labeled with the site of the Primary Headwater Habitat Assessment Manual) ved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Micromments Regarding Biology:	lections optional. NOTE: all voucher samples must be labeled with the sit sets from the Primary Headwater Habitat Assessment Manual) ved? (Y/N) Voucher? (Y
BIOTIC EVALUATION If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Mo	lections optional. NOTE: all voucher samples must be labeled with the sit sets from the Primary Headwater Habitat Assessment Manual) ved? (Y/N) Voucher? (Y
BIOTIC EVALUATION If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Mounter of Tadpoles Observed? (Y/N) Aquatic Mounter of Tadpoles Obse	lections optional. NOTE: all voucher samples must be labeled with the sit sets from the Primary Headwater Habitat Assessment Manual) ved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) acroinvertebrates Observed? (Y/N) Voucher? (Y/N) F STREAM REACH (This must be completed): e evaluation and a narrative description of the stream's location
BIOTIC EVALUATION If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she she Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Maximum Advantage of Include Important landmarks and other features of Interest for site.	lections optional. NOTE: all voucher samples must be labeled with the sit sets from the Primary Headwater Habitat Assessment Manual) ved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) acroinvertebrates Observed? (Y/N) Voucher? (Y/N) F STREAM REACH (This must be completed): e evaluation and a narrative description of the stream's location
BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Micromments Regarding Biology:	ections optional. NOTE: all voucher samples must be labeled with the site states from the Primary Headwater Habitat Assessment Manual) ved? (Y/N) Voucher? (
BIOTIC EVALUATION If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Momments Regarding Biology. DRAWING AND NARRATIVE DESCRIPTION OF Include Important landmarks and other features of interest-for site.	Transmission Live Row
BIOTIC EVALUATION formed? (Y/N): (If Yes, Record all observations. Voucher coll ID number. Include appropriate field data she in Observed? (Y/N) Voucher? (Y/N) Salamanders Observed or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Minments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF Include Important landmarks and other features of interest-for site.	ections optional. NOTE: all voucher samples must be labeled with the site states from the Primary Headwater Habitat Assessment Manual) ved? (Y/N) Voucher? (

PHWH Form Page - 2

Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION ARY SULTH CATHLY SOCIAL SITE NUMBER RIVER BASIN JUSCA' AUGUS R DRAINA LENGTH OF STREAM REACH (ft) 200 LAT. 40.71377 LONG 81.42033 RIVER CODE	
DATE 9 7 2017 SCORER KLV COMMENTS 5003 NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH S	
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED PRECOVERING RECOVERED PRECOVERED PRECOVE	
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of both type TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts]	PERCENT PERCENT POINTS Substrate Max = 40
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE	(B) 3 A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts]	Max = 30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
→ 3.0 m eters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] → 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] → 1.0 m (≤ 3' 3") [5 pts] → 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	Width Max=30
COMMENTSAVERAGE BANKFULL WIDTH	
	(meters)
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	ig downstream ☆
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as lookin RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Moderate 5-10m RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Moderate 5-10m Moderate 5-10m L Interview To	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Op Orce	ng downstream☆ enservation Tillage coan or Industrial en Pasture, Row
RIPARIAN ZONE AND FLOODPLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Reflection of the predomin	ng downstream☆ Inservation Tillage Dan or Industrial Inser Pasture, Row Dip Ining or Construction Ino flow (Intermittent)
RIPARIAN ZONE AND FLOODPLAIN QUALITY Riparian Width FLOODPLAIN QUALITY	ng downstream☆ Inservation Tillage Dan or Industrial Inser Pasture, Row Dip Ining or Construction Ino flow (Intermittent)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Col	mpleted):
QHEI PERFORMED? - Yes No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	Distance from Evaluated Stream <u>0.90 miles</u>
T CWH Name:	
] EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE W	
ISGS Quadrangle Name: Bolivar & Wayneshurg NRCS	6 Soil Map Page: NRCS Soil Map Stream Order
ounty: Stark Co. Township/Ci	ry. Pike Tup.
MISCELLANEOUS	
Base Flow Conditions? (Y/N) : Date of last precipitation: 9152	OIT Quantity: 525"
Photograph Information:	
Elevated Turbidity? (Y/N): 1 Canopy (% open): 201	
Vere samples collected for water chemistry? (Y/N): $\overline{\mathbb{N}}$ (Note lab sample	e no. or id. and attach results) Lab Number:
ield Measures: Temp (°C) Dissolved Oxygen (mg/l) p	oH (S.U.) Conductivity (µmhos/cm)
s the sampling reach representative of the stream (Y/N) If not, please	explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher collecti	ions optional. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets	from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macro	d? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N)
1.	oniverteniates observed? (1747)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF S	TREAM REACH (This must be completed):
Include Important landmarks and other features of interest for site	
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THEO	\prec) $/$ \rangle)
	imature 1
(Jm	imac.
/ Ne	alast)

Chieff Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

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ı	61	- 1

S004 SITENUMBER	RIVER BASIN JUSCALAWUS K DRAINAGE AREA (mi²) 0.	3550 ml
LENGTH OF STREAM REACH (ft) 200 DATE 9 8 2017 SCORER KLV	LAT. 40,71419 LONG. 81.42024 RIVER CODE RIVER MILE COMMENTS	
	TIM - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction of the control	
(Max of 40). Add total number of signific	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes cant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT TYPE SILT [3 pt] PERCENT	HHEI Metric Points Substrate Max = 40 A + B
2. Maximum Pool Depth (Measure the n	TOTAL NUMBER OF SUBSTRATE TYPES: naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of ad culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ☐ ≤ 1.0 m (≤ 3' 3") [5 pts]	Bankfull Width Max=30
> 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]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters) This information <u>must</u> also be completed	Width
> 4.0 meters (> 13') [30 pts]	This information must also be completed PLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Shrub or Old Field Residential Park New Field Open Pasture, Row	Width
> 4.0 meters (> 13') [30 pts]	This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Shrub or Old Immature Forest, Shrub or Old Residential, Park, New Field Residential, Park, New Field Fenced Pasture Mining or Construction Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts]	This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Shrub or Old Immature Forest, Shrub or Old Residential, Park, New Field Residential, Park, New Field Fenced Pasture Mining or Construction Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Compl	eted):
QHEI PERFORMED? - Yes No QHEI Score(If Y	es, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: COLLY COLLY CWH Name: COLLY EWH Name: COLLY	Distance from Evaluated Stream 0.52 miles Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATE	RSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bolivar r Waynes burg NRCS So	
County: Stay k Co Township / City:	Pike Tuy-
County: Township / City: 1	The log-
MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: 9 5 20	Quantity: 4.25"
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 251	
Were samples collected for water chemistry? (Y/N): (Note lab sample no	or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S11) Conductivity (umbos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please expl	ain
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections ID number. Include appropriate field data sheets from	optional. NOTE: all voucher samples must be labeled with the sin the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (YFrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinv	
DRAWING AND NARRATIVE DESCRIPTION OF STR	
Include Important landmarks and other features of interest for site evalu	nation and a narrative description of the stream's location
PEM	Forest /
FLOW	

ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION AT SOUTH	RIVER BASIN TUSCARAWAS	DRAINAGE AREA (mi²) 0,15 sq.ml
DATE 9111 2017 SCORER KLV	LAT. 40.71273 LONG. 91.41618 RIVER	2
I I de la companya del companya de la companya de la companya del companya de la companya del la companya del la companya de l	rm - Refer to "Field Evaluation Manual for O	
MODIFICATIONS: Surface Minim	ATURAL CHANNEL X RECOVERED DRECO	VERING IT RECENT OR NO RECOVERY
(Max of 40). Add total number of signifi	very type of substrate present. Check <i>ONLY</i> two pricant substrate types found (Max of 8), Final metric so	core is sum of boxes A & B.
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]	PERCENT TYPE SILT [3 pt] LEAF PACKWOODY D	Points
☐ ☐ BEDROCK [16 pt] ☐ ☐ COBBLE (65-256 mm) [12 pts]	FINE DETRITUS [3 pt	Max = 40
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts]	20 □ □ MUCK [0 pts] 40 □ □ ARTIFICIAL [3 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _ SCORE OF TWO MOST PREDOMINATE SUB		(B) A + B OF SUBSTRATE TYPES:
	maximum pool depth within the 61 meter (200 ft) and culverts or storm water pipes) (Check ONLY on 15 cm - 10 cm [15 pts - 5 cm - 5 pts - 5 cm - 10 cm [75 pts - 5 cm - 10 cm]	me box): Max = 30
COMMENTS	MAXIMUM POO	DL DEPTH (centimeters):
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]		ONLY one box): Bankfull (14'8") [15 pts] Width
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	ne average of 3-4 measurements) (Check	ONLY one box): Bankfull (14'8") [15 pts] Width
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	ne average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') 5 pts AVERAGE BAN This information must also be completed	ONLY one box): "- 4' 8") [15 pts] Width Max=30 ONKFULL WIDTH (meters)
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH	This information must also be completed PLAIN QUALITY AVERAGE BANGE B	ONLY one box): '- 4' 8") [15 pts] NKFULL WIDTH (meters) Bankfull Width Max=30 20
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	This information must also be completed Check	ONLY one box): "- 4' 8") [15 pts] Width Max=30 ONKFULL WIDTH (meters)
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH L R (Per Bank)	This information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) (Check of Check of Ch	ONLY one box): "-4'8") [15 pts] WKFULL WIDTH (meters) ight (R) as looking downstream L R
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH L R (Per Bank) Wide >10m	This Information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	ONLY one box): "-4'8") [15 pts] WKFULL WIDTH (meters) Dight (R) as looking downstream L R Conservation Tillage Urban or Industrial Open Pasture, Row
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH L R (Per Bank) (Per Bank) Wide > 10 m Moderate 5-10 m	This information must also be completed PLAIN QUALITY A (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Check Check	ONLY one box): "-4'8") [15 pts] NKFULL WIDTH (meters) Ight (R) as looking downstream L R Conservation Tillage Urban or Industrial
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	This information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture (Check ONLY one box): Moist Channe	ONLY one box): '- 4' 8") [15 pts] NKFULL WIDTH (meters) Ight (R) as looking downstream& L R Conservation Tillage Urban or Industrial Open Pasture, Row Crop
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH (Per Bank) Wide > 10 m Moderate 5-10 m Narrow < 5 m None COMMENTS FLOW REGIME (At Time of Events o	This information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture (Check ONLY one box): Moist Channe	Bankfull Width Max=30 20 WKFULL WIDTH (meters) Sight (R) as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction It, isolated pools, no flow (Intermittent) no water (Ephemeral)

QHEI PERFORMED? - Yes No QHEI Score(If Yes	Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
☐ CWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERS	
USGS Quadrangle Name: hollow rwaynes burg NRCS Soil N	lap Page: NRCS Soil Map Stream Order
county: Stark Co. Township/City. Pi	Ke Tup.
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation: 9 5 201	Quantity: 4.25"
Photograph Information:	
Elevated Turbidity? (Y/N): Canopy (% open):	31
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or	idand attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U	
s the sampling reach representative of the stream (Y/N) If not, please explain	4.
strie sampling reach representative of the stream (**//v) if not, please explain	
dditional comments/description of pollution impacts: BIOTIC EVALUATION	
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections op ID number. Include appropriate field data sheets from the served? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinverted.	tional. NOTE: all voucher samples must be labeled with the selection of the primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections op ID number. Include appropriate field data sheets from the sheet of the sh	tional. NOTE: all voucher samples must be labeled with the selection of the primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION Output Out	tional. NOTE: all voucher samples must be labeled with the selection of the primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION Output Out	tional. NOTE: all voucher samples must be labeled with the selection of the primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION Output Out	tional. NOTE: all voucher samples must be labeled with the selection of th
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections op ID number. Include appropriate field data sheets from the sheet of the sh	tional. NOTE: all voucher samples must be labeled with the see Primary Headwater Habitat Assessment Manual) \(\begin{align*} \begin{align*} \text{Voucher? (Y/N)} \\ \text{Voucher? (Y/N)} \\ \end{align*} \) \(\text{AM REACH (This \text{must} be completed):} \) \(\text{on and a narrative description of the stream's location} \)
Performed? (Y/N): (If Yes, Record all observations. Voucher collections op ID number. Include appropriate field data sheets from the Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvert Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM	tional. NOTE: all voucher samples must be labeled with the see Primary Headwater Habitat Assessment Manual) \(\begin{align*} \begin{align*} \text{Voucher? (Y/N)} \\ \text{Voucher? (Y/N)} \\ \end{align*} \) \(\text{AM REACH (This \text{must} be completed):} \) \(\text{on and a narrative description of the stream's location} \)
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections op ID number. Include appropriate field data sheets from the sheet of the sh	tional. NOTE: all voucher samples must be labeled with the see Primary Headwater Habitat Assessment Manual) \(\begin{align*} \begin{align*} \text{Voucher? (Y/N)} \\ \text{Voucher? (Y/N)} \\ \end{align*} \) \(\text{AM REACH (This \text{must} be completed):} \) \(\text{on and a narrative description of the stream's location} \)
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections op ID number. Include appropriate field data sheets from the Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvert Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM of Include Important landmarks and other features of Interest for site evaluation. The Macroinvert Comments Regarding Biology:	tional. NOTE: all voucher samples must be labeled with the see Primary Headwater Habitat Assessment Manual) \(\begin{align*} \begin{align*} \text{Voucher? (Y/N)} \\ \text{Voucher? (Y/N)} \\ \end{align*} \) \(\text{AM REACH (This \text{must} be completed):} \) \(\text{on and a narrative description of the stream's location} \)
Performed? (Y/N): (If Yes, Record all observations. Voucher collections op ID number. Include appropriate field data sheets from the Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvert Comments Regarding Biology DRAWING AND NARRATIVE DESCRIPTION OF STREAM Include important landmarks and other features of interest for site evaluation The Amswission of the salamanders of the	tional. NOTE: all voucher samples must be labeled with the see Primary Headwater Habitat Assessment Manual) \(\begin{align*} \begin{align*} \text{Voucher? (Y/N)} \\ \text{Voucher? (Y/N)} \\ \end{align*} \) \(\text{AM REACH (This \text{must} be completed):} \) \(\text{on and a narrative description of the stream's location} \)

Chieff Primary Headwater Habitat Evaluation Form

	HHEI Score (sum of metrics 1, 2, 3):	
SITE NAME/LOCATION ACT SIXLE	AN CONTHIN	
	RIVER BASIN TUSCA YAWAS R DRAINAGE AREA (mi²) 0.15	
LENGTH OF STREAM REACH (ft) 200	LAT. 40,71185 LONG81,41517 RIVER CODE RIVER MILE	
DATE 9 11 2017 SCORER KLV		
NOTE: Complete All Items On This F	orm - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct	tions
STREAM CHANNEL NONE /	NATURAL CHANNEL X RECOVERED TRECOVERING TRECENT OR NO RECOVE	ERY
MODIFICATIONS: Surface mi	nivo	
	0	
	every type of substrate present. Check ONL Y two predominant substrate TYPE boxes inficant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE	PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]	SILT [3 pt] LEAF PACKWOODY DEBRIS [3 pts]	Point
BEDROCK [16 pt]	FINE DETRITUS [3 pts]	Substrat Max = 4
OBBLE (65-256 mm) [12 pts]	CLAY or HARDPAN [0 pt]	max - 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts]		20
	DARLING MANAGEMENT CONTROL OF THE PARTY OF T	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	(<u>I)</u> (A) 5	A + B
SCORE OF TWO MOST PREDOMINATE SU	BSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	
2. Maximum Pool Depth (Measure the	e maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	ool Dep
evaluation. Avoid plunge pools from r	road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	>5 cm - 10 cm [15 pts] < 5 cm [5 pts]	15
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as t	the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3'3"- 4'8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]		Max=30
COMMENTS	AVERAGE BANKFULL WIDTH (meters)	15
COMMENT 13	AVERAGE BANK! OLL WIDTH (Incless)	
	This information must also be completed	
RIPARIAN ZONE AND FLOO		
RIPARIAN WIDTH L R (Per Bank)	FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	
Wide >10m	☐ ☐ Mature Forest, Wetland ☐ ☐ Conservation Tillage	
☐ ☐ Moderate 5-10m	Immature Forest, Shrub or Old	
☐ ☐ Narrow <5m	☐ ☐ Residential, Park, New Field ☐ ☐ Open Pasture, Row	
□ □ None	☐ ☐ Fenced Pasture ☐ ☐ Mining or Construction	
COMMENTS		
· · · · · · · · · · · · · · · · · · ·	Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated p	Moist Channel, isolated pools, no flow (Intermittent) pools (Interstitial) Dry channel, no water (Ephemeral)	51
COMMENTS		
SINUOSITY (Number of bend	ds per 61 m (200 ft) of channel) (Check ONLY one box):	
☐ None 〔 ☐ 0.5	1.0 2.0 3.0 1.5 2.5 2.5 >3	
STREAM GRADIENT ESTIMATE		

QHEI PERFORMED? - Tyes X No QHEI Score	(II 103, 7 ttdoir Odripictod Qirei i orin)
DOWNSTREAM DESIGNATED USE(S)	0.2()
WWH Name: BOOK KUN	Distance from Evaluated Stream 0.76 miles
J CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE EN	TIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
Be being oh bengeburg	
GGS Quadrangle Name: 1 15 Wall Wall Wall Wall	NRCS Soil Map Page: NRCS Soil Map Stream Order
ounty: Stark Co	ship/city: PIKCTWP.
MISCELLANEOUS	
se Flow Conditions? (Y/N): Date of last precipitation:	5/2017 000 11 1/25/
se Flow Conditions? (Y/N): Date of last precipitation:	Quantity: 4.20
otograph Information:	
evated Turbidity? (Y/N): N Canopy (% open): 35	1.
ere samples collected for water chemistry? (Y/N): 17 (Note lab	sample no. or id. and attach results) Lab Number:
old Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
the sampling reach representative of the stream (Y/N)	please explain:
ditional comments/description of pollution impacts:	
BIOTIC EVALUATION Iformed? (Y/N): N (If Yes, Record all observations. Vouche	r collections optional. NOTE: all voucher samples must be labeled with the site
BIOTIC EVALUATION Iformed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION formed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION formed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION If Yes, Record all observations. Voucher ID number. Include appropriate field data to the Observed? (Y/N) Voucher? (Y/N) Salamanders Obgs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquation	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION If Yes, Record all observations. Voucher ID number. Include appropriate field data to the Observed? (Y/N) Voucher? (Y/N) Salamanders Obgs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquation	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION formed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION (If Yes, Record all observations. Vouche ID number. Include appropriate field data h Observed? (Y/N) Voucher? (Y/N) Salamanders O gs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatimments Regarding Biology:	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N) Voucher? (Y/N)
BIOTIC EVALUATION formed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)
BIOTIC EVALUATION formed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N) Voucher? (Y/N)
BIOTIC EVALUATION formed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)
BIOTIC EVALUATION formed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)
BIOTIC EVALUATION formed? (Y/N): (If Yes, Record all observations. Voucher ID number. Include appropriate field data to Observed? (Y/N) Voucher? (Y/N) Salamanders Of Voucher? (Y/N) Aquation Market Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)
BIOTIC EVALUATION formed? (Y/N): (If Yes, Record all observations. Voucher ID number. Include appropriate field data to Observed? (Y/N) Voucher? (Y/N) Salamanders Of Voucher? (Y/N) Aquation Market Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)
BIOTIC EVALUATION If ormed? (Y/N): (If Yes, Record all observations, Voucher ID number, Include appropriate field data to hobserved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquati mments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION Include important landmarks and other features of interest for	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)
BIOTIC EVALUATION If Yes, Record all observations. Voucher ID number. Include appropriate field data to h Observed? (Y/N) Voucher? (Y/N) Salamanders Object or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquation Advantage of the Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)
BIOTIC EVALUATION If ormed? (Y/N): (If Yes, Record all observations, Voucher ID number, Include appropriate field data to hobserved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquati mments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION Include important landmarks and other features of interest for	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)
BIOTIC EVALUATION If ormed? (Y/N): (If Yes, Record all observations, Voucher ID number, Include appropriate field data to hobserved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquati mments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION Include important landmarks and other features of interest for	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)
BIOTIC EVALUATION If ormed? (Y/N): (If Yes, Record all observations, Voucher ID number, Include appropriate field data to hobserved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquati mments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION Include important landmarks and other features of interest for	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N)

ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

r	100 30	_
ı	1111	
u	44	

SITE NAMELOCATION ARY SALHO CATHON SITE NAMELOCATION ARY SALHO SITE NAMELOCATION ARY SAL	etions
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 40). 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] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	HHEI Metric Points Substrate Max = 40
, , , , , , , , , , , , , , , , , , , ,	Bankfull Width Max=30
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 L R (Most Predominant per Bank) L R (Most Predomina	
STREAM GRADIENT ESTIMATE ☐ Flat (0.5 ft/100 ft) ☐ Moderate ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)	t)

DOWNSTREAM DESIG	NATED USE(S)	
		Distance from Evaluated Stream O.UU mile
		Distance from Evaluated Stream Distance from Evaluated Stream
J EWH Name:		
a (1 × 1	ATERSHED AREA. CLEARLY MARK THE SITE LOCATION
		Soil Map Page: NRCS Soil Map Stream Order
ounty: Stark Co.	Township / Cit	x Pike luf-
MISCELLANEOUS		
ase Flow Conditions? (Y/N):	Date of last precipitation: 9 5	2017 Quantity: 4.25"
	6	
	Canopy (% open): 15 /	
		no. or id. and attach results) Lab Number:
·	• • • • • • • • • • • • • • • • • • • •	, — , — , — , — , — , — , — , — , — , —
		H (S.U.) Conductivity (µmhos/cm)
the sampling reach representative	ve of the stream (Y/N) If not, please e	explain:
dditional comments/description o	facilities importer	
uullionai commenis/uescripiion o	or politition impacts.	
		ons optional. NOTE: all voucher samples must be labeled with the si
erformed? (Y/N): (If ID	number. Include appropriate field data sheets	from the Primary Headwater Habitat Assessment Manual)
erformed? (Y/N): (If ID	number. Include appropriate field data sheets	from the Primary Headwater Habitat Assessment Manual)
erformed? (Y/N): (If ID sh Observed? (Y/N) Vo	number. Include appropriate field data sheets	from the Primary Headwater Habitat Assessment Manual)
erformed? (Y/N): (If ID	number. Include appropriate field data sheets bucher? (Y/N) Salamanders Observed	from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
erformed? (Y/N): (If ID	number. Include appropriate field data sheets oucher? (Y/N) Salamanders Observed N) Voucher? (Y/N) Aquatic Macro	from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\sum_{\text{Voucher?}} \text{(Y/N)} \)
erformed? (Y/N): (If ID	number. Include appropriate field data sheets oucher? (Y/N) Salamanders Observed N) Voucher? (Y/N) Aquatic Macro	from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
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erformed? (Y/N): (If ID sh Observed? (Y/N) Vorogs or Tadpoles Observed? (Y/N) omments Regarding Biology:	number. Include appropriate field data sheets oucher? (Y/N) Salamanders Observed N) Voucher? (Y/N) Aquatic Macro	from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\sum_{\text{Voucher?}} \text{(Y/N)} \)
erformed? (Y/N): (If ID	number. Include appropriate field data sheets outher? (Y/N) Salamanders Observed N) Voucher? (Y/N) Aquatic Macro	from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\sum_{\text{Voucher?}} \text{(Y/N)} \)
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erformed? (Y/N): (If ID ID ID Include Important landmark	number. Include appropriate field data sheets oucher? (Y/N) Salamanders Observed N) Voucher? (Y/N) Aquatic Macro	from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\sum_{\text{Voucher?}} \text{(Y/N)} \)
erformed? (Y/N): (If ID sh Observed? (Y/N) Vorogs or Tadpoles Observed? (Y/N) omments Regarding Biology:	number. Include appropriate field data sheets outher? (Y/N) Salamanders Observed N) Voucher? (Y/N) Aquatic Macro	from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\sum_{\text{Voucher?}} \text{(Y/N)} \)

June 20, 2008 Revision

ChieEPA

Primary Headwater Habitat Evaluation Form

55

Severe (10 ft/100 ft)

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION ATP-SOLAN COLINTUY RIVER BASIN TUSCA MANUAS A DRAINAGE AREA (mi²) 0.30 ga mi SITE NUMBER_ LENGTH OF STREAM REACH (ft) 200 LAT. 40.70905 LONG. 81.41511 RIVER CODE _____ RIVER MILE_ COMMENTS NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions ☐ NONE / NATURAL CHANNEL ☑ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY MODIFICATIONS: Surface mining SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric Points BLDR SLABS [16 pts] SILT [3 pt] LEAF PACKWOODY DEBRIS [3 pts] BOULDER (>256 mm) [16 pts] Substrate FINE DETRITUS [3 pts] BEDROCK [16 pt] Max = 40ПП CLAY or HARDPAN [0 pt] COBBLE (65-256 mm) [12 pts] MUCK [0 pts] GRAVEL (2-64 mm) [9 pts] ARTIFICIAL [3 pts] SAND (<2 mm) [6 pts] (B) Total of Percentages of A + BBldr Slabs, Boulder, Cobble, Bedrock TOTAL NUMBER OF SUBSTRATE TYPES: SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth Max = 30evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] < 5 cm [5 pts] > 22.5 - 30 cm [30 pts] NO WATER OR MOIST CHANNEL [0 pts] > 10 - 22.5 cm [25 pts] MAXIMUM POOL DEPTH (centimeters): COMMENTS (Check ONLY one box): Bankfull BANK FULL WIDTH (Measured as the average of 3-4 measurements) > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width > 4.0 meters (> 13') [30 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] Max=30 > 1.5 m - 3.0 m (> 4'8" - 9'7") [20 pts] AVERAGE BANKFULL WIDTH (meters) 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 (Most Predominant per Bank) (Per Bank) Conservation Tillage Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Open Pasture, Row 00 Narrow <5m ПП Residential, Park, New Field Crop Mining or Construction Fenced Pasture None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent) Stream Flowing Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): 1.0 2.0 3.0 None 0.5 STREAM GRADIENT ESTIMATE

☐ Moderate (2 ft/10 // ft)

Moderate to Severe

Flat (0.5 ft/100 ft)

Flat to Moderate

DOWNSTREAM DESIGNATED USE(S)	
Name: bar hun	Distance from Evaluated Stream O. Ulo miles
	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE EN	TIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bolivar r Nayno burg	NRCS Soil Map Page: NRCS Soil Map Stream Order
county: Stark Co. Towns	hip/city. Pike Tup.
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation:	5/207 Quantity: 4.25"
	TO COUNTY.
Photograph Information:	
	sample no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N)	please explain:
is the sampling road, representant of the sampling (1117)	
Additional comments/description of pollution impacts:	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual)
Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site is sheets from the Primary Headwater Habitat Assessment Manual)
Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site is sheets from the Primary Headwater Habitat Assessment Manual)
Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site is sheets from the Primary Headwater Habitat Assessment Manual)
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Additional comments/description of pollution impacts:	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N) Voucher? (Y/
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Additional comments/description of pollution impacts:	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N) Voucher? (Y/
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BIOTIC EVALUATION Performed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N) Voucher? (Y/N
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BIOTIC EVALUATION Performed? (Y/N):	r collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) bserved? (Y/N) Voucher? (Y/N

June 20, 2008 Revision

SITE NAME/LOCATION _ ALV - SXAHO CAY HOV

Primary Headwater Habitat Evaluation Form

hieFPA Primary Headwater Ha	abitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):	55
H OF STREAM REACH (ft) 200 LAT. 40.70850 LON 11217 SCORER KLV COMMENTS E: Complete All Items On This Form - Refer to "Field Eva	Sag	tructions
SUBSTRATE (Estimate percent of every type of substrate press (Max of 40). Add total number of significant substrate types found total number of significant substrate types found to the substrate types for the substrate types for the substrate types found to the substrate types for t	Sent. Check ONLY two predominant substrate TYPE boxes (Max of 8). Final metric score is sum of boxes A & B. SILT [3 pt] LEAF PACKWOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts] (B) TOTAL NUMBER OF SUBSTRATE TYPES:	HHEI Metric Points Substrate Max = 40
Maximum Pool Depth (Measure the maximum pool depth with evaluation. Avoid plunge pools from road culverts or storm water; > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	nin the 61 meter (200 ft) evaluation reach at the time of	Pool Depth Max = 30
BANK FULL WIDTH (Measured as the average of 3-4 measure > 4.0 meters (> 13') [30 pts]	ments) (Check <i>ONLY</i> one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width

LENGTH OF STREAM REACH (ft) 200 LA DATE 12 17 SCORER KLV NOTE: Complete All Items On This Form -	RIVER BASIN TOSCUTUDIONS DRAINAGE AREA (III) OF THE ATT. 40.70850 LONG. BI.41578 RIVER CODE RIVER MILE ROMENTS SOON REFER TO "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction	ions
STREAM CHANNEL DINONE/NATUR	RAL CHANNEL TRECOVERED TRECOVERING TRECENT OR NO RECOVE	RY
(Max of 40). Add total number of significant TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of	RCENT TYPE SILT [3 pt] LEAF PACKWOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts]	HHEI Metric Points ubstrate Max = 40
Bidr Slabs, Boulder, Cobble, Bedrock 1 SCORE OF TWO MOST PREDOMINATE SUBSTRA		
2. Maximum Pool Depth (Measure the maximum evaluation. Avoid plunge pools from road out > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	midili pool depth thank the or moter (20019 - 1000)	ool Dept Max = 30
COMMENTS	MAXIMUM POOL DEPTH (centImeters):	
3. BANK FULL WIDTH (Measured as the av. > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width Max=30
COMMENTS	AVERAGE BANKFULL WIDTH (meters)	-0
RIPARIAN ZONE AND FLOODPLA RIPARIAN WIDTH L. R. (Per Bank)	FLOODPLAIN QUALITY I R (Most Predominant per Bank) L R	
Wide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	
- Moderate 3 Tolli	Field Open Pasture, Row Crop	
□ □ Naπow <5m □ □ None COMMENTS	Crop Fenced Pasture Crop Mining or Construction	
FLOW REGIME (At Time of Evaluar Stream Flowing Subsurface flow with isolated pools of COMMENTS	Moist Channel, isolated pools, no flow (Intermittent)	
SINUOSITY (Number of bends per None 0.5	r 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft)	t)

	QHEI PERFORMED	SIGNATED LISE(S)			
Iwwh	Name:bear	SIGNATED USE(S)		Distance from Evaluated	Stream 0 67 miles
				Distance from Evaluated S	
J EWH I	Name:			Distance from Evaluated S	Stream
	MAPPING: ATTACH	COPIES OF MAPS, INCLU	JDING THE ENTIRE WATERS	HED AREA. CLEARLY MARK TH	E SITE LOCATION
208.00				ap Page: NRCS Soil Ma	
aga Qu	SL. V				
ounty:	Mark Co	٥٠	Township / City:	Ke Tup-	
	MISCELLANEOUS				
ase Flov	v Conditions? (Y/N):	Date of last pred	cipitation: 45200	Quantity: <u>4.25</u> "	_
	oh Information:	4.			
vyi al	- 11.50		15/		
		Canopy (% op			
ere sam	ples collected for wa	ater chemistry? (Y/N):	(Note lab sample no. or	id. and attach results) Lab Numb	er:
ield Mea	sures: Temp (°C)) Dissolved Oxyge	en (mg/l) pH (S.U	.) Conductivity (µmhos	s/cm)
the sam	nling reach represer	ntative of the stream (YAI)	If not please evolain		
uiv sall	ibiiii i eacii i ebi esei	nauve of the stream (1/N)_	ii iiot, piease explain.	· · · · · · · · · · · · · · · · · · ·	NI NI
	BIOTIC EVALUATION	on of pollution impacts: ON			
erformed	BIOTIC EVALUATI	ON (If Yes, Record all observa ID number. Include appro	ations. Voucher collections opti priate field data sheets from the	ional. NOTE: all voucher samples e Primary Headwater Habitat Asse Voucher? (Y/N) V brates Observed? (Y/N) V	must be labeled with the si ssment Manual)
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erformed sh Obse ogs or 1 omment	BIOTIC EVALUATION IP (Y/N):	ON (If Yes, Record all observa ID number. Include appro Voucher? (Y/N) Si (Y/N) Voucher? (Y/N)	ations. Voucher collections opti priate field data sheets from the salamanders Observed? (Y/N) N) Aquatic Macroinverte	ional. NOTE: all voucher samples e Primary Headwater Habitat Asserbrates Observed? (Y/N) Vebrates Observed? (Y/N) Vebrate	must be labeled with the sissment Manual) oucher? (Y/N) N
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ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION ACCUMENTS SOLO SITE NUMBER RIVER BASIN TUSCOYOU OF DRAINAGE AREA (mi²) O.M. LENGTH OF STREAM REACH (ft) 200 LAT. 40,70921 LONG. B1.41261 RIVER CODE RIVER MILE DATE 912 200 SCORER COMMENTS SOLO 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 RECOVERED RECOVERED RECOVERING RECENT OR NO RECOVERED RE	
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt]	HHEI Metric Points Substrate Max = 40
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of Bidr Siebs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: MUCK [0 pts] ARTIFICIAL [3 pts] (B) TOTAL NUMBER OF SUBSTRATE TYPES:	A+B
2. Imaximum Pool Deptit (weasure the maximum pool deptit (was the maximum pool deptit (weasure the	Pool Depth Max = 30
COMMENTS	Bankfull Width Max=30
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immeture Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row	
□ None □ Fenced Pasture □ Mining or Construction	
Narrow com	

QHEI PERFORMED? - Yes No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: DCN KUN	
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE N	
ounty: Stark Co. Township / G	City: Pike Tup.
unty: Township/C	Sity: 1 the toy-
MISCELLANEOUS	. == 11
se Flow Conditions? (Y/N): Date of last precipitation: 45	2617 Quantity: 4.25"
otograph Information:	
evated Turbidity? (Y/N): \(\sum_{\text{canopy}} \text{ Canopy (% open): } \(\frac{451}{1} \)	
ere samples collected for water chemistry? (Y/N): (Note lab samp	ele no. or id. and attach results) Lab Number:
eld Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
the sampling reach representative of the stream (Y/N)	
The sampling reach representative of the stream (1/N)_1 If not, please	s exprain.
BIOTIC EVALUATION	· · · · · · · · · · · · · · · · · · ·
(If Yes, Record all observations. Voucher collection in the collection of the collec	ctions optional. NOTE: all voucher samples must be labeled with the sites from the Primary Headwater Habitat Assessment Manual)
Fromed? (Y/N): (If Yes, Record all observations. Voucher collection in the collection of the collectio	ctions optional. NOTE: all voucher samples must be labeled with the sites from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION (If Yes, Record all observations. Voucher collection in the collection of the colle	ctions optional. NOTE: all voucher samples must be labeled with the sites from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION (If Yes, Record all observations. Voucher collection in the collection of the colle	ctions optional. NOTE: all voucher samples must be labeled with the sites from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION (If Yes, Record all observations. Voucher collection in the collection of the colle	ctions optional. NOTE: all voucher samples must be labeled with the sites from the Primary Headwater Habitat Assessment Manual) ed? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
BIOTIC EVALUATION If Yes, Record all observations. Voucher collect ID number. Include appropriate field data sheet In Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macomments Regarding Biology:	ctions optional. NOTE: all voucher samples must be labeled with the sit is from the Primary Headwater Habitat Assessment Manual) ed? (Y/N) \(\sqrt{N} \) \(\sqrt{Voucher?} \) (Y/N) \(\sqrt{N} \) \(\sqrt{Voucher?} \) (Y/N) \(\sqrt{N} \) \(\s
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BIOTIC EVALUATION formed? (Y/N):	citions optional. NOTE: all voucher samples must be labeled with the sit is from the Primary Headwater Habitat Assessment Manual) ed? (Y/N) Voucher? (Y/N)

Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

ı	52
ı	57

SITE NAME/LOCATION ARE SOUTH	V COMPLY I	
SO (SITE NUMBER	RIVER BASIN TUSCHUNGS 1 DRAINAGE AREA (mi²) 0.045	a-mi.
LENGTH OF STREAM REACH (ft) 200 LA	AT. 40,70979 LONG81.41712 RIVER CODE RIVER MILE	_
NOTE: Complete All Items On This Form -	Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction	ns
STREAM CHANNEL ON NONE / NATURE MODIFICATIONS:	RAL CHANNEL TO RECOVERED TO RECOVERING, TRECENT OR NO RECOVERY	Y
1. SUBSTRATE (Estimate percent of every	type of substrate present. Check ONLY two predominant substrate TYPE boxes	HEI
	Substitute types found (max of o), I mai moule door to be percent Me	etric oints
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]	SILT [3 pt] 40 LEAF PACKWOODY DEBRIS [3 pts]	כווונס
BEDROCK [16 pt]	Sub Max	strate x = 40
COBBLE (65-256 mm) [12 pts]	CLAY or HARDPAN [0 pt]	7
☐ ☐ SAND (<2 mm) [6 pts] ☐ ☐	5 G ARTIFICIAL [3 pts]	1
Total of Percentages of	(A) (A) (B) (B) (B)	+ B
Bidr Slabs, Boulder, Cobble, Bedrock 1/2 SCORE OF TWO MOST PREDOMINATE SUBSTR	ATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	
2. Maximum Pool Depth (Measure the max	Illight boot depar within the or meter (200 ty themeter)	Depth
evaluation. Avoid plunge pools from road of > 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	~]
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	< 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
	MAXIMUM POOL DEPTH (centimeters): verage of 3-4 measurements) (Check ONLY one box): Ba	ankfull
3. BANK FULL WIDTH (Measured as the av	werage of 3-4 measurements) (Check ONLY one box): Sample Samp	nkfull Vidth
3. BANK FULL WIDTH (Measured as the av	werage of 3-4 measurements) (Check ONLY one box): Same of 3-4 measurements Check ONLY one box Barrian	/id th
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	werage of 3-4 measurements) (Check ONLY one box): Same of 3-4 measurements Check ONLY one box Barrian	/idth
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	MAXIMUM POOL DEPTH (centimeters): verage of 3-4 measurements) (Check ONLY one box): ⇒ 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ⇒ 1.0 m (≤ 3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters)	/idth
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	MAXIMUM POOL DEPTH (centimeters): verage of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	/id th
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	MAXIMUM POOL DEPTH (centimeters): //erage of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3'3" - 4'8") [15 pts] < 1.0 m (≤ 3'3") [5 pts] AVERAGE BANKFULL WIDTH (meters) This information must also be completed AIN QUALITY ☆NOTE; River Left (L) and Right (R) as looking downstream☆ FLOODPLAIN QUALITY	/id th
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	MAXIMUM POOL DEPTH (centimeters): Maximum Pool Depth (centimeters): Maximum Pool Depth (centimet	/id th
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPLA RIPARIAN WIDTH L. R. (Per Bank)	MAXIMUM POOL DEPTH (centimeters): Average of 3-4 measurements)	/id th
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPLA RIPARIAN WIDTH L R (Per Bank) Wide > 10 m	MAXIMUM POOL DEPTH (centimeters): Maximum Pool Depth (centimeters):	/id th
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts]	MAXIMUM POOL DEPTH (centimeters): Average of 3-4 measurements)	/id th
COMMENTS SANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	MAXIMUM POOL DEPTH (centimeters): Average of 3-4 measurements)	/id th
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts]	MAXIMUM POOL DEPTH (centimeters):	/idth
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPLA RIPARIAN WIDTH L R (Per Bank) Wide > 10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evalue Stream Flowing Subsurface flow with isolated pools COMMENTS	MAXIMUM POOL DEPTH (centimeters):	/idth
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPLA RIPARIAN WIDTH L R (Per Bank) Wide > 10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evalue Stream Flowing Subsurface flow with isolated pools COMMENTS SINUOSITY (Number of bends per None	MAXIMUM POOL DEPTH (centimeters):	/idth
3. BANK FULL WIDTH (Measured as the av > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPLA RIPARIAN WIDTH L R (Per Bank) Wide > 10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evalue Stream Flowing Subsurface flow with isolated pools COMMENTS SINUOSITY (Number of bends per None	MAXIMUM POOL DEPTH (centimeters): January	/id th

QHEI PERFORMED? - Tyes ANO QHEI Score	
DOWNSTREAM DESIGNATED USE(S) WWH Name:	Distance from Evaluated Stream 0.76 mlbs
☐ EWH Name:	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE	WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Bolivar & Vaulushurcy NR	RCS Soil Map Page: NRCS Soil Map Stream Order
county: Stark Co	City. Pike Tup.
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation:	267 Quantity: 4.25"
Photograph Information:	dum,
Elevated Turbidity? (Y/N): Canopy (% open):	
	-
Were samples collected for water chemistry? (Y/N): (Note lab same	
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, pleas	se explain:
Additional comments/description of pollution impacts:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher colle	ections optional. NOTE: all voucher samples must be labeled with the site ets from the Primary Headwater Habitat Assessment Manual)
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher colle ID number. Include appropriate field data she Fish Observed? (Y/N) N Salamanders Observations	ections optional. NOTE: all voucher samples must be labeled with the site ets from the Primary Headwater Habitat Assessment Manual)
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BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher college in the properties of the p	ections optional. NOTE: all voucher samples must be labeled with the site ets from the Primary Headwater Habitat Assessment Manual) ved? (Y/N) \(\frac{1}{2} \) Voucher? (Y/N) \(\frac{1}{2} \) Vou
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Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION AEP - SOL	HN CANTAX)	
	RIVER BASIN TUSCARAWAS R. DRAINAGE AREA (mi²) O.	
DATE 913 201 SCORER KLU	LAT. 40.70939 LONG. BLUIGIS RIVER CODE RIVER MILE	
	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ıctions
	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECO	VERY
modifications: Surface min	ling 1/4 La	
(Max of 40). Add total number of signific TYPE PLDR SLABS [16 pts] BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes cant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT SILT [3 pt] LEAF PACKWOODY DEBRIS [3 pts] FINE DETRITUS [3 pts]	HHEI Metric Points Substrate Max = 40
	CLAY or HARDPAN [0 pt]	0
SAND (<2 mm) [6 pts]	☐ ☐ ARTIFICIAL [3 pts]	0
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS	O (A) STRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	A + B
2. Maximum Pool Depth (Measure the mevaluation. Avoid plunge pools from road > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of add culverts or storm water pipes) (Check ONLY one box):	Max = 30
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	Marco S. Page Scar	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	e average of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13") [30 pts]	e average of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters) This information must also be completed	Width
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	This information must also be completed PLAIN QUALITY Paverage of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] AVERAGE BANKFULL WIDTH (meters)	Width
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3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODI RIPARIAN WIDTH L R (Per Bank) Wide > 10 m	This information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) R (Most Predominant per Bank) Mature Forest, Wetland I Mature Forest, Shrub or Old Check ONLY one box): AVERAGE BANKFULL WIDTH (meters) AVERAGE BANKFULL WIDTH (meters) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Conservation Tillage	Width
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9'.7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4'.8" - 9'.7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOOD! RIPARIAN WIDTH L. R. (Per Bank) Wide > 10 m Moderate 5-10 m	This information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Plain Qualify Conservation Tillage Conservation Conservati	Width
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	This information must also be completed PLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY Another Bank R	Width
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOOD! RIPARIAN WIDTH L R (Per Bank) Wide > 10 m Moderate 5-10 m	This Information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland	Width
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9'.7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4'.8" - 9'.7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODI RIPARIAN WIDTH L. R. (Per Bank) Wide > 10 m Moderate 5-10 m Narrow < 5 m None COMMENTS None COMMENTS	This information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field Open Pasture, Row Crop Fenced Pasture Mining or Construction	Width Max=30
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	This information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field Open Pasture, Row Crop Fenced Pasture Mining or Construction	Width Max=30

DOMMOTOCAMOC	9? - Yes X No QHEI Score		
A MANH Name: DC (IV	SIGNATED USE(S)	Distance from Eve	wated Stream D.83miles
CM/H Name:	11007	Distance from Eve	usted Streem
EWH Name:			
D EVVI IVallie.		Distance from Eval	dated Stream
in the second se	COPIES OF MAPS, INCLUDING THE ENT		
_ •	divar r Waynesburg		
county: Stark Co	Townsh	nip/city: PIKe Tup.	
MISCELLANEOUS			
Base Flow Conditions? (Y/N):_	Date of last precipitation:	5/26/7 Quantity: 42	5"
Photograph Information:			
Elevated Turbidity 2 (VAI):	Canopy (% open):		
Lievated Fulbidity? (1714).	Carlopy (% open).		
	ter chemistry? (Y/N): (Note lab s		
Field Measures: Temp (°C)_	Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity	(µmhos/cm)
Is the sampling reach represent	tative of the stream (Y/N) If not, p	lease explain:	
	l l		
Additional comments/description	on of pollution impacts:		
Additional confinents/description	in or poliution impacts		
BIOTIC EVALUATIO	ON		
	(If Yes, Record all observations. Voucher		
Lec III	ID number. Include appropriate field data	sheets from the Primary Headwater Habit	at Assessment Manual)
Fish Observed? (Y/N)	Voucher? (V/N) N Salamanders Ob	served? (V/N) N Voucher? (VAI)	N
Froms or Tadnoles Observed?	Voucher? (Y/N) Salamanders Ob (Y/N) Voucher? (Y/N) Aquatic	: Macroinvertebrates Observed? (Y/N)	Voucher? (Y/N)
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Comments Regarding Biology:_			
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ChieFPA Primary Headwater Habitat Evaluation Form

TE NAME/LOCATIO	N_AHP-SOUT	Carror	
S013	SITE NUMBER_	RIVER BASIN Tuxarawas	DRAINAGE AREA (mi²)
ENGTH OF STREAM	REACH (ft) 200	LAT. 40.70747 LONG. 81.41973 RIVE	R CODE RIVER MILE 0.0450
ATE 9/13/201	SCORER KLV	COMMENTSS	013
		- Refer to "Field Evaluation Manual for O	hio's PHWH Streams" for Instructions
NOTE: Complete			
TREAM CHANNE	L ONONE/NA	URAL CHANNEL RECOVERED RECO	VERING RECENT OR NO RECOVERY
MODIFICATIONS:	unreclaimed	Strip mine.	
SUBSTRATE	(Estimate percent of ev	y type of substrate present. Check ONLY two pr	redominant substrate TYPE boxes
	Add total number of signif	nt substrate types found (Max of 8). Final metric so	PERCENT Meti
TYPE BLDR SL	ABS [16 pts]	TYPE SILT [3 pt]	Poin
☐ ☐ BOULDE	R (>256 mm) [16 pts]	☐ ☐ LEAF PACKWOODY	Subst
	K [16 pt]	FINE DETRITUS [3 pt	Max =
	(65-256 mm) [12 pts]	CLAY or HARDPAN [0	0 pt]
117.119.7	(2-64 mm) [9 pts]	MUCK [0 pts] ARTIFICIAL [3 pts]	120
Z□ SAND(<	? mm) [6 pts]	AKTIFICIAL [3 pts]	
Total of	Percentages of oulder, Cobble, Bedrock	(A)	(B) A + E
	ST PREDOMINATE SUB	RATE TYPES: LOTAL NUMBER	OF SUBSTRATE TYPES:
Maximum Po	ol Depth (Measure the	eximum pool depth within the 61 meter (200 ft)	evaluation reach at the time of Max =
evaluation. Av		culverts or storm water pipes) (Check ONLY or > 5 cm - 10 cm [15 pt	
> 22.5 - 30 cn	n [30 pts]	Ø < 5 cm [5 pts]	
> 22.5 - 30 cm > 10 - 22.5 cm		Ø < 5 cm [5 pts] ☐ NO WATER OR MOIS	ST CHANNEL [0 pts]
> 10 - 22.5 cm	[25 pts]	□ NO WATER OR MOIS	ST CHANNEL [0 pts] OL DEPTH (centimeters):
> 10 - 22.5 cm	n [25 pts]	NO WATER OR MOIS	OL DEPTH (centimeters):
COMMENTS BANK FULL	n [25 pts] WIDTH (Measured as th	NO WATER OR MOIS MAXIMUM POO	OL DEPTH (centimeters): ONLY one box): Bank
> 10 - 22.5 cm COMM ENTS BANK FULL > 4.0 meters (>	n [25 pts] WIDTH (Measured as th	NO WATER OR MOIS	OL DEPTH (centimeters): ONLY one box): Bank Width
> 10 - 22.5 cm COMM ENTS BANK FULL > 4.0 meters (> > 3.0 m - 4.0 m	WIDTH (Measured as th	NO WATER OR MOIS MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3'	OL DEPTH (centimeters): ONLY one box): Bank Width
COMM ENTS BANK FULL > 4.0 meters (> > 3.0 m - 4.0 m > 1.5 m - 3.0 m	WIDTH (Measured as the 13') [30 pts] to (> 9' 7" - 13') [25 pts] to (> 4' 8" - 9' 7") [20 pts]	NO WATER OR MOIS MAXIMUM POO average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3") [5 pts	OL DEPTH (centimeters): ONLY one box): "- 4' 8") [15 pts] s]
> 10 - 22.5 cm COMM ENTS BANK FULL > 4.0 meters (> 3.0 m - 4.0 m	WIDTH (Measured as the 13') [30 pts] to (> 9' 7" - 13') [25 pts] to (> 4' 8" - 9' 7") [20 pts]	NO WATER OR MOIS MAXIMUM POO average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3") [5 pts	OL DEPTH (centimeters): ONLY one box): Bank Width
> 10 - 22.5 cm COMM ENTS BANK FULL > 4.0 meters (> 3.0 m - 4.0 m > 1.5 m - 3.0 m	WIDTH (Measured as the 13') [30 pts] to (> 9' 7" - 13') [25 pts] to (> 4' 8" - 9' 7") [20 pts]	NO WATER OR MOIS MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3") [5 pts AVERAGE BAI	OL DEPTH (centimeters): ONLY one box): "- 4' 8") [15 pts] Max= NKFULL WIDTH (meters)
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> 10 - 22.5 cm COMM ENTS BANK FULL > 4.0 meters (> 3.0 m - 4.0 m > 1.5 m - 3.0 m COMM ENTS RIPA RIPA L R (Pe	[25 pts]	NO WATER OR MOIS MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') ≤ 1.0 m (≤ 3' 3") [5 pts AVERAGE BAI This information must also be completed LAIN QUALITY ☆NOTE: River Left (L) and R FLOODPLAIN QUALITY L R (Most Predominant per Bank)	OL DEPTH (centImeters): ONLY one box): "- 4' 8" [15 pts] s] NKFULL WIDTH (meters) Right (R) as looking downstream L R
> 10 - 22.5 cm COMMENTS BANK FULL > 4.0 meters (> 3.0 m - 4.0 m > 1.5 m - 3.0 m COMMENTS RIPA RIPA L R (Po	[25 pts]	NO WATER OR MOIS MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') ≤ 1.0 m (≤ 3' 3") [5 pts AVERAGE BAI This information must also be completed LAIN QUALITY ☆NOTE: River Left (L) and R FLOODPLAIN QUALITY	OL DEPTH (centImeters): ONLY one box): Width Max= NKFULL WIDTH (meters) Right (R) as looking downstream Conservation Tillage
COMMENTS BANK FULL > 4.0 meters (.2) > 3.0 m - 4.0 n > 1.5 m - 3.0 n COMMENTS RIPA RIPA L R (Po	[25 pts]	MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') ≤ 1.0 m (≤ 3' 3") [5 pts AVERAGE BAI This information must also be completed LAIN QUALITY ☆NOTE: River Left (L) and R FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland	ONLY one box): Bank Widt Max= NKFULL WIDTH (meters) L Right (R) as looking downstream Conservation Tillage Urban or Industrial
> 10 - 22.5 cm COMMENTS BANK FULL > 4.0 meters (> 3.0 m - 4.0 m > 1.5 m - 3.0 m COMMENTS RIPA RIPA RIPA With the second of the second	[25 pts]	MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') ≤ 1.0 m (≤ 3' 3") [5 pts AVERAGE BAI This Information must also be completed LAIN QUALITY ANOTE: River Left (L) and R FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	ONLY one box): ONLY one box): Width Max= NKFULL WIDTH (meters) I Conservation Tillage Urban or Industrial Open Pasture, Row
> 10 - 22.5 cm COMMENTS BANK FULL > 4.0 meters (.2) > 3.0 m - 4.0 m > 1.5 m - 3.0 m COMMENTS RIPA RIPA Po	MIDTH (Measured as the 13') [30 pts] in (> 9' 7" - 13') [25 pts] in (> 4' 8" - 9' 7") [20 pts] in (> ARIAN WIDTH er Bank) in de >10m in content of the state of t	MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') [5 pts] AVERAGE BAI This information must also be completed LAIN QUALITY ☆NOTE: River Left (L) and R FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field	OL DEPTH (centImeters): ONLY one box): "- 4' 8" [15 pts] NKFULL WIDTH (meters) I Right (R) as looking downstream L R Conservation Tillage Urban or Industrial
> 10 - 22.5 cm COMMENTS BANK FULL > 4.0 meters (> 3.0 m - 4.0 n > 1.5 m - 3.0 n COMMENTS RIPA RIPA Wi	WIDTH (Measured as the 13') [30 pts] 10 (> 9' 7" - 13') [25 pts] 11 (> 4' 8" - 9' 7") [20 pts] RIAN ZONE AND FLOOM RRIAN WIDTH 12 Bank) 15 de >10 m 16 derate 5-10 m	MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') AVERAGE BAI This information must also be completed LAIN QUALITY ANOTE: River Left (L) and R FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field	OL DEPTH (centImeters): ONLY one box): Width (Max= NKFULL WIDTH (meters) Right (R) as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop
COMMENTS BANK FULL > 4.0 meters (> > 3.0 m - 4.0 n > 1.5 m - 3.0 n COMMENTS RIPA RIPA RIP RIPA RIP No No COMMENTS	WIDTH (Measured as the 13') [30 pts] in (> 9' 7" - 13') [25 pts] in (> 4' 8" - 9' 7") [20 pts] RIAN ZONE AND FLOOI ARIAN WIDTH er Bank) de >10m selectate 5-10m arrow <5m selectate MENTS	MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') ≤ 1.0 m (≤ 3' 3") [5 pts AVERAGE BAI This information must also be completed LAIN QUALITY ANOTE: River Left (L) and R FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Field Residential, Park, New Field Fenced Pasture	OL DEPTH (centImeters): ONLY one box): Width (Max= NKFULL WIDTH (meters) Right (R) as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop
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COMMENTS BANK FULL > 4.0 meters (> > 3.0 m - 4.0 n > 1.5 m - 3.0 n COMMENTS RIPA RIPA RIP RIP RIP RIP RIP R	WIDTH (Measured as the 13') [30 pts] in (> 9' 7'' - 13') [25 pts] in (> 4' 8" - 9' 7") [20 pts] RIAN ZONE AND FLOO! ARIAN WIDTH er Bank) de >10m exterate 5-10m exterate 5-10m whe MENTS	MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') ≤ 1.0 m (≤ 3' 3") [5 pts AVERAGE BAI This information must also be completed LAIN QUALITY ANOTE: River Left (L) and R FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture Moist Channel Moist Channel	OL DEPTH (centImeters): ONLY one box): "- 4' 8") [15 pts] SI NKFULL WIDTH (meters) I Right (R) as looking downstream Urban or Industrial Open Pasture, Row Crop Mining or Construction el, isolated pools, no flow (Intermittent)
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> 10 - 22.5 cm COMMENTS BANK FULL > 4.0 meters (> 3.0 m - 4.0 m > 1.5 m - 3.0 m COMMENTS Power	WIDTH (Measured as the 13') [30 pts] (> 9' 7" - 13') [25 pts] (> 4' 8" - 9' 7") [20 pts] RIAN ZONE AND FLOOD ARIAN WIDTH er Bank) de >10m where the second s	MAXIMUM POC average of 3-4 measurements) (Check > 1.0 m - 1.5 m (> 3' 3') AVERAGE BAI This Information must also be completed LAIN QUALITY ANOTE: River Left (L) and R FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture Moist Channel Is (Interstitial) Moist Channel	ONLY one box): ONLY one box): Width Max= NKFULL WIDTH (meters) I Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction II, isolated pools, no flow (Intermittent) no water (Ephemeral)

QHEI PERFORMED? - Yes No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	027
CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream
	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS INCLUDING THE	ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
	NRCS Soil Map Page: NRCS Soil Map Stream Order
nunty: Stark Co. Tow	vnship/city: KKETWP.
MISCELLANEOUS	1-1
se Flow Conditions? (Y/N): Date of last precipitation: 9	152017 Quantity: 4.25 "
otograph Information:	
evated Turbidity? (Y/N): N Canopy (% open):	
. 1	lab sample no. or id. and attach results) Lab Number:
7	pH (S.U.) Conductivity (µmhos/cm)
ne sampling reach representative of the stream (Y/N)	ot, please explain:
BIOTIC EVALUATION	
offormed? (Y/N): (If Yes, Record all observations. Vouch ID number. Include appropriate field does not observed? (Y/N) Salamanders ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aqu	ther collections optional. NOTE: all voucher samples must be labeled with the sit lata sheets from the Primary Headwater Habitat Assessment Manual) S Observed? (Y/N) \(\lambda \rightarrow \) Voucher? (Y/N) \(\lambda \rightarrow \) Voucher? (Y/N) \(\lambda \rightarrow \) Voucher? (Y/N) \(\lambda \rightarrow \)
offormed? (Y/N): (If Yes, Record all observations. Vouch ID number. Include appropriate field does not observed? (Y/N) Salamanders ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aqu	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \(\bigcup_{\text{\texi}\text{\text{\text{\text{\text{\texi}\text{\text{\text{\texictex{\tex
(If Yes, Record all observations. Voucleton include appropriate field don't have one of the observed? (Y/N) Voucher? (Y/N) Salamanders ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aqu	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \(\bigcup_{\text{\texi}\text{\text{\text{\text{\text{\texi}\text{\text{\text{\texictex{\tex
formed? (Y/N): (If Yes, Record all observations. Voucled ID number. Include appropriate field don Observed? (Y/N) Voucher? (Y/N) Salamanders go or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquinments Regarding Biology:	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \(\) \(
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erformed? (Y/N): (If Yes, Record all observations. Vouch ID number. Include appropriate field dish Observed? (Y/N) Voucher? (Y/N) Salamanders ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquin omments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
(If Yes, Record all observations. Vouch ID number. Include appropriate field double Observed? (Y/N) Voucher? (Y/N) Salamanders ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquimments Regarding Biology. DRAWING AND NARRATIVE DESCRIPTION	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
(If Yes, Record all observations. Vouch ID number. Include appropriate field double to the Observed? (Y/N) Voucher? (Y/N) Salamanders ago or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquimments Regarding Biology. DRAWING AND NARRATIVE DESCRIPTION	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
formed? (Y/N): (If Yes, Record all observations. Voucled ID number. Include appropriate field do not observed? (Y/N) Voucher? (Y/N) Salamanders go or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquinments Regarding Biology:	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
If Yes, Record all observations. Voucle ID number. Include appropriate field distributed in the Observed? (Y/N) Voucher? (Y/N) Salamanders orgs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquimments Regarding Biology. DRAWING AND NARRATIVE DESCRIPTION Include Important landmarks and other features of interest	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
(If Yes, Record all observations. Vouch ID number. Include appropriate field dish Observed? (Y/N) Voucher? (Y/N) Salamanders or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquimments Regarding Biology. DRAWING AND NARRATIVE DESCRIPTION	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
If Yes, Record all observations. Voucle ID number. Include appropriate field do h Observed? (Y/N) Voucher? (Y/N) Salamanders and other? (Y/N) Aquin mments Regarding Biology. DRAWING AND NARRATIVE DESCRIPTION Include Important landmarks and other features of interest.	Ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) Voucher? (Y/N)
formed? (Y/N): (If Yes, Record all observations. Voucled ID number. Include appropriate field do not observed? (Y/N) Voucher? (Y/N) Salamanders go or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquinments Regarding Biology:	Ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) Voucher? (Y/N)
(If Yes, Record all observations. Voucin ID number. Include appropriate field did to Observed? (Y/N) Voucher? (Y/N) Salamanders are or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquinments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION Include Important landmarks and other features of Interest	ata sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
formed? (Y/N): (If Yes, Record all observations. Voucled ID number. Include appropriate field do not observed? (Y/N) Voucher? (Y/N) Salamanders go or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquinments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION Include Important landmarks and other features of interest	ON OF STREAM REACH (This must be completed): for site evaluation and a narrative description of the stream's location

ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION APP- SOUTH CONTINY	
SO14 SITE NUMBER RIVER BASIN TUSCAYAWUS R. DRAINAGE AREA (1	
LENGTH OF STREAM REACH (#) 200 LAT. 40,70735 LONG81,4214 RIVER CODE RIVER N	IILE
DATE 913 2017 SCORER KLV COMMENTS SOIL	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" fo	
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR N	O RECOVERY
MODIFICATIONS:	
1. SUBSTRATE (Estimate parcant of every type of substrate present. Check ONLY two predominant substrate TYPE be	
(Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] SILT [3 pt]	Points
□ □ BOULDER (>256 mm) [16 pts] □ □ LEAF PACKWOODY DEBRIS [3 pts] □ □ BEDROCK [16 pt] □ □ FINE DETRITUS [3 pts]	Substrate
COBBLE (65-256 mm) [12 pts]	Max = 40
☐ ☐ GRAVEL (2-64 mm) [9 pts] <u>20</u> ☐ ☐ MUCK [0 pts]	16
Total of Percentages of (A) (B)	A+B
Bidr Slabs, Boulder, Cobble, Bedrock 12 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	4
	- I
 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): 	Pool Depth Max = 30
□ > 30 centimeters [20 pts] □ > 5 cm - 10 cm [15 pts] □ > 22.5 - 30 cm [30 pts] □ < 5 cm [5 pts]	
□ > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	
COMMENTSMAXIMUM POOL DEPTH (cantimetars):	<u> </u>
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (≤ 3' 3") [5 pts]	Width Max=30
□ > 1.5 m - 3.0 m (> 4' 8"- 9' 7") [20 pts]	4 15
COMMENTSAVERAGE BANKFULL WIDTH (meters)	- 1
This information must also be completed	
This Information <u>must</u> also ba completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstrea	m 🕏
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
☐ ☐ Wide >10m ☐ ☐ Mature Forest, Wetland ☐ ☐ Conservation T	llage
☐	nal
Narrow <5m Residential, Park, New Field Open Pasture, Crop	Row
☐ None ☐ ☐ Fenced Pasture ☐ ☐ Mining or Cons	ruction
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
☐ Stream Flowing ☐ Moist Channel, isolated pools, no flow (Inte	mittent)
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	

ADDITIONAL STREAM INFORMATION (This Information Must Also be C	Completed):
QHEI PERFORMED? - Yes Mo QHEI Score	_ (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: DOWNSTREAM DESIGNATED USE(S)	Distance from Evaluated Stream 0.98mile)
CWH Name: 1 X / / 1 W /	Distance from Evaluated Stream
D EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE	
USGS Quadrangle Name: Bollwar r Way lesburg NR County: Sturk Co. Township /	CS Soil Map Page: NRCS Soil Map Stream Order
County: Township /	city. PIKE IMP.
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation: 9 5	2017 Quantity: 4.25"
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 15/	
Were samples collected for water chemistry? (Y/N): 1	ple no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N)	
site sampling reach representative of the stream (1711)	ospiani
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher college	ections optional. NOTE: all voucher samples must be labeled with the site ets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) \(\frac{N}{N}\) \(\frac{N}\) \(\frac{N}{N}\) \(\frac{N}\) \(\frac{N}{N}\) \(\frac{N}\) \(\frac{N}\) \(\frac{N}\) \(\frac{N}\) \(\frac{N}\) \(\frac{N}\) \	ved? (Y/N) \(\sum_\) Voucher? (Y/N) \(\sum_\) Voucher? (Y/N) \(\sum_\) Voucher? (Y/N) \(\sum_\)
Comments Regarding Biology	
DRAWING AND NARRATIVE DESCRIPTION OF	STREAM REACH (This must be completed):
Include important landmarks and other features of Interest for site	
	~~
culvert ((Immature Forest)
FLOW	The same of the sa
000	000
Paved Boad	
. , ,	

APPENDIX D Ohio Rapid Assessment Method for Wetlands (ORAM) Data Forms



Site: ₽	P-S	outh Canton	Rater(s): KW		Date: 9 7 2017
2	2	Metric 1. Wetland A		1-PEM-CATM	
max 6 pts.	subtotal	Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to < 0.1 acres (0.04ha) (0 pts)	ne.) (20.2ha) (5 pts) ha) (4 pts) a) (3 pts) (2ha) (2pts) (50.12ha) (1 pt)	-PUB-CATMOD) 2
5	7	Metric 2. Upland bu	iffers and surround	ding land use.	
max 14 pts.	subtotal		Select only one and assign score. m (164ft) or more around wetland 25m to <50m (82 to <164ft) arour	perimeter (7)	
·		NARROW. Buffers averagy VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years) MODERATELY HIGH. Res	e 10m to <25m (32ft to <82ft) aro average <10m (<32ft) around wetl	und wetland perimeter (1) and perimeter (0) l average. rildlife area, etc. (7) h forest. (5) 나 nservation tillage, new fallo	w field. (3)
20	27	Metric 3. Hydrology	.		
max 30 pts.	sublolal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	ce water (3) ke or stream) (5) 30 nly one and assign score. (2) ic regime. Score one or double check all disturbances observed ditch tile dike weir stormwater input	Part of wetland/up Part of riparian or d. Duration inundation/satu Semi- to permane Regularly inundate Seasonally inundate Seasonally saturated and average. ed point source (nons filling/grading road bed/RR track dredging other pre-law)	n (1) ske and other human use (1) land (e.g. forest), complex (1) upland corridor (1) ration. Score one or dbl check ntly inundated/saturated (4) ed/saturated (3) sted (2) ted in upper 30cm (12in) (1)
7	34	Metric 4. Habitat Al		opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or Recovered (6) Recovered (6)	y one and assign score. double check and average. Check all disturbances observed mowing	ed shrub/sapling rem	
sut	34 Stotal this pa	Recovering (3) 2 Recent or no recovery (1)	grazing clearcutting selective cutting woody debris removal toxic pollutants	sedimentation dredging farming nutrient enrichmen	

Site: A	EP-So	th Canton Rater	s): KW	Date: 9 7 2017
0	34 biotal first pa	Metric 5. Special Wetland	1,700	1-PEM-CATMOD2 1-PUB-CATMOD2
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal threa Significant migratory songbird/water for Category 1 Wetland. See Question 1	estricted hydrolo ngs) (10) atened or endar fowl habitat or u I Qualitative Ra	ngy (5) Ingered species (10) Isage (10) Iting (-10)
7	41	Metric 6. Plant communi	ties, inte	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation C	ommunity Cover Scale
		Score all present using 0 to 3 scale. Aquatic bed Emergent Shrub	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one. High (5)	Narrative De	scription of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderately low (2) Low (1) None (0)	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but generally w/o presence of rare threatened or endangered spp
		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopogr	aphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common of marginal quality
		13	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		19	3	Present in moderate or greater amounts

Site:Ą	P-So	wth (anto	1	Rater(s): KU		Date:97	2017
2	1	Metr	ic 1.	Wetland A	Area (size).	W00	2-PFO-CATMODZ 02-PUB-CATMODZ	
max 6 pts.	subtotal	Select	no sizo d	class and assign sco	NFO.	Wo	02-PUB-CATMODZ	
max q prs.	Subiola	Selection	>50 ac 25 to 4 10 to 4 3 to 4 0.3 to 0.1 to	class and assign scc cres (>20.2ha) (6 pts <50 acres (10.1 to < <25 acres (4 to <10. 10 acres (1.2 to <4h <3 acres (0.12 to <1 <0.3 acres (0.04 to < cres (0.04ha) (0 pts	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		* ·	¥
5	7	Metr	ic 2.	Upland bu	iffers and su	rroundir	ng land use.	
max 14 pts.	subtotal	2b. Inte	WIDE. MEDIU NARR VERY nsity of s VERY LOW. MODE	Buffers average 50 JM. Buffers average OW. Buffers average NARROW. Buffers surrounding land use LOW. 2nd growth of Old field (>10 years RATELY HIGH. Re	Select only one and assor (164ft) or more around 25m to <50m (82 to <1 pe 10m to <25m (32ft to average <10m (<32ft) a c. Select one or double or older forest, prairie, satisfied in the period of the	Id wetland peni 64ft) around w <82ft) around round wetland check and ave wannah, wildlift cond growth for e, park, consen	meter (7) etland perimeter (4) wetland perimeter (1) perimeter (0) erage. e area, etc. (7) rest. (5) vation tillage, new fallow field. (3)	
20	27	Metr	ic 3.	Hydrology	/-		·	
max 30 pts.	subtotal	7	High p Other Precip Seaso Perenr	Vater. Score all that H groundwater (5) groundwater (3) itation (1) nal/Intermittent surfanial surface water (later depth. Select o	ace water (3)	3d. <u>D</u>	onnectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other h Part of wetland/upland (e.g. fores Part of riparian or upland corridor uration inundation/saturation. Score of Semi- to permanently inundated/s	t), complex (1) (1) ne or dbl check
		×	>0.7 (2 0.4 to (<0.4m lifications	27.6in) (3) 0.7m (15.7 to 27.6in (<15.7in) (1)) (2) ic regime. Score one or	double check	Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30	1 4
			Recov	ered (7) ering (3) t or no recovery (1)	ditch tile dike weir stormwater inp		point source (nonstormwater) filling/grading road bed/RR track dredging other	
8	35	Metr	ic 4.	Habitat Al	teration and	Develop	ment.	
max 20 pts.	subtotal	4b. Hab	None of Recover Recover Recent development of Recent Recent Recover Recent Rece	or none apparent (4) ered (3) ering (2) t or no recovery (1) lopment. Select onle ent (7) ood (6) 5) ately good (4)) o fair (2)	ne or double check and a y one and assign score. double check and avera			
subt	35 otal this pa	×	None of Recover	or none apparent (9) ered (6) ering (3) t or no recovery (1)	(es observed g emoval	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment	

Site:	P-S0	wth Canton	Rater	(s): KLV	Da	te: 9/7/2017
	35				1002-PFO-CATMOD2	
SI	ubtotal first p	⊒ age		W	002-PUB-CATMODZ	
0	35	Metric 5. Spec		ds.		
max 10 pls	subtotal	Check all that apply and so	ore as indicated.			
		Bog (10) Fen (10)				
		Old growth fores	t (10)			
		Mature forested	• •			
			l/tributary wetland-u	-		
			ıl/tributary wetland-re Prairies (Oak Open		,gy (5)	
		Relict Wet Prairie		3-7(-7		
			ce state/federal thre		=	30
			tory songbird/water			
	-		and. See Question			
8	43	Metric 6. Plan	t communi	ties, inte	erspersion, microtopo	grapny.
max 20 pts.	subtotal	6a. Wetland Vegetation Co			ommunity Cover Scale	
		Score all present using 0 to	o 3 scale.	0	Absent or comprises <0.1ha (0.2471 as Present and either comprises small pa	
		Aquatic bed Emergent		3 8	vegetation and is of moderate quality	
		Shrub			significant part but is of low quality	, 0. 00
		Forest		2	Present and either comprises significant	
		O Mudflats			vegetation and is of moderate quality	or comprises a small
		2 Open water			part and is of high quality	or more, of wetlend's
		6b. horizontal (plan view)	ntereperation	3	Present and comprises significant part vegetation and is of high quality	or more, or wettand's
		Select only one.	interspersion.	•	vegetation and is of riight quarty	
		High (5)		Narrative De	scription of Vegetation Quality	
		Moderately high((4)	low	Low spp diversity and/or predominance	e of nonnative or
		Moderate (3)	٥١		disturbance tolerant native species Native spp are dominant component of	the vegetation
		Moderately low (2)	mod	although nonnative and/or disturbance	mention to the Property of the Control of the Contr
		None (0)			can also be present, and species div	
		6c. Coverage of invasive p	olants. Refer		moderately high, but generally w/o p	
		to Table 1 ORAM long form	n for list. Add	,	threatened or endangered spp	142
		or deduct points for covera	•	high	A predominance of native species, with and/or disturbance tolerant native sp	
		Extensive >75% Moderate 25-759	• •		absent, and high spp diversity and of	- I
		Sparse 5-25% co	• •		the presence of rare, threatened, or	91
		Nearly absent <5		*		
		Absent (1)			Open Water Class Quality	_
		6d. Microtopography.	0 1 -	0	Absent <0.1ha (0.247 acres)	
		Score all present using 0 to Vegetated humn		1	Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres)	<u>s)</u>
			ebris >15cm (6in)	3	High 4ha (9.88 acres) or more	<u>-, </u>
		Standing dead >		-		
		Amphibian breed			aphy Cover Scale	
				0	Absent	common
				<u> </u>	Present very small amounts or if more of marginal quality	
				2	Present in moderate amounts, but not quality or in small amounts of highes	
				3	Present in moderate or greater amoun	
	1				and of highest quality	7.1

Site:AEP->	athlanton	Rater(s): KLV	Date:9 1 U	01 1
2 2	Metric 1. Wetland A	Area (size). Wo	03-PEM-CATZ	
max 6 pts. subtotal	Select one size class and assign scc	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt))		
5 7	Metric 2. Upland bu	iffers and surround	ling land use.	
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	om (164ft) or more around wetland per 25m to <50m (82 to <164ft) aroung to <164ft) aroung to 10m to <25m (32ft to <82ft) aroung average <10m (<32ft) around wetlage. Select one or double check and or older forest, prairie, savannah, with ships hand, young second growth	perimeter (7) d wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) a forest. (5) servation tillage, new fallow field. (3)	
18 25	Metric 3. Hydrology	/ -	÷	
max 30 pts. sublotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog Recovered (7) Recovering (3) Recent or no recovery (1)	ace water (3) ake or stream) (5) nly one and assign score.		omplex (1) or dbl check rated (4)
8 33	Metric 4. Habitat Al	teration and Devel	opment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or None or none apparent (9) Recovered (6) Recovering (3)	double check and average. Check all disturbances observed mowing grazing	shrub/sapling removal herbaceous/aquatic bed removal	
33 subtotal this p	Recent or no recovery (1)	clearcutting selective cutting woody debris removal toxic pollutants	sedimentation dredging farming nutrient enrichment	

Site: A	EP-S	outh Canton	Rater(s): KLV	Date: 9 7 2017
sı	33 abtotal first p	-		03-PEM-CATZ
0	33	Metric 5. Special V	Vetlands.	
max 10 pts	subtotal	Check all that apply and score as inc Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fi Significant migratory song Category 1 Wetland. See	5) v wetland-unrestricted hyd v wetland-restricted hydrol (Oak Openings) (10) ederal threatened or enda bird/water fowl habitat or Question 1 Qualitative R	angered species (10) usage (10) ating (-10)
1	34	Metric 6. Plant con	nmunities, int	erspersion, microtopography.
max 20 pts	subtotal	6a. Wetland Vegetation Communitie	es. Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent O Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		O Forest	2	Present and either comprises significant part of wetland's
		O Mudflats		vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspers		vegetation and is of high quality
		Select only one.		Togetation and to orangin quanty
		High (5)	Narrative D	escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)	11199	although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Re	ofor	moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list.		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5		and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)	.5)	the presence of rare, threatened, or endangered spp
	77		(0)	the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover Absent (1)		Open Water Class Quality
			0	Absent <0.1ha (0.247 acres)
		6d. Microtopography. Score all present using 0 to 3 scale.	- 1	Low 0.1 to <1ha (0.247 acres)
		Control of the contro		Moderate 1 to <4ha (2.47 to 9.88 acres)
		Vegetated hummucks/tuss		
		Coarse woody debris >15		High 4ha (9.88 acres) or more
		Standing dead >25cm (10		ranhy Cover Scale
		Amphibian breeding pools		raphy Cover Scale
			0	Absent Present your small amounts or if more common
			~ T //	Present very small amounts or if more common of marginal quality
			2	
			Z	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
- 1	i.		_	and of highest quality

34

Site: A S	uth Canton Rater(s)	: KLV	Date:9 7 20 7
	Metric 1. Wetland Area (siz	(e). WOO4-PUB-CA	TMOD 2
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) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)		
8 9	Metric 2. Upland buffers ar	id surrounding land us	se.
max 14 pts. subtotal	very NARROW. Buffers average <10m 2b. Intensity of surrounding land use. Select one very Low. 2nd growth or older forest, Low. Old field (>10 years), shrub land,	nore around wetland perimeter (7) (82 to <164ft) around wetland perimeter (m (32ft to <82ft) around wetland perimeter (m (32ft) around wetland perimeter (0) or double check and average. prairie, savannah, wildlife area, etc. (7) young second growth forest. (5) ed pasture, park, conservation tillage, new	4) - (1)
19 28	Metric 3. Hydrology.		
max 30 pts. subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) 3c. Maximum water depth. Select only one and as >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1)	(5) 3d. Duration inundation sign score. Semi- to per Regularly inu Seasonally in Seasonally s	dplain (1) am/lake and other human use (1) ad/upland (e.g. forest), complex (1) an or upland corridor (1) a/saturation. Score one or dbl check manently inundated/saturated (4) andated/saturated (3)
		listurbances observed	
	Recovered (7) Recovering (3) Recent or no recovery (1) Responsible title dike weir storm	point source filling/grading road bed/RR dredging other	track
10 38	Metric 4. Habitat Alteration	and Development.	
max 20 pts. subtotal	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and ass Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	ign score.	
38 subtotal this pa	Recovered (6) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering	isturbances observed ng shrub/sapling	aquatic bed removal n

Site: A	FP-S	dre	Canton	Rater(s):	KLV		Date: 9/7/2017
•	38		- VIATED	,,	W004	f-PUB-CATMOD2	
0	38	7	ic 5. Special \	Wetlands.			
max 10 pts.	subtotal	Check al	that apply and score as i Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributa Lake Erie coastal/tributa Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state Significant migratory son Category 1 Wetland. Se	(5) ry wetland-unrestr ry wetland-restrict (Oak Openings) (//federal threatened gbird/water fowl h	ed hydrolo (10) d or endar abitat or u	ogy (5) ngered species (10) isage (10)	
3	41	Metr	ic 6. Plant co	mmunities	s, inte	erspersion, microto	pography.
max 20 pts.	subtotal	da. Wetl	and Vegetation Communi	ties. Ver	etation C	Community Cover Scale	
154			present using 0 to 3 scale		0	Absent or comprises <0.1ha (0.24	71 acres) contiguous area
		0	Aquatic bed Emergent Shrub		1	Present and either comprises small vegetation and is of moderate of significant part but is of low qual	all part of wetland's uality, or comprises a
		0	Forest Mudflats Open water	-	2	Present and either comprises sign vegetation and is of moderate of part and is of high quality	nificant part of wetland's
		6b. horiz	Other contal (plan view) Interspe	rsion.	3	Present and comprises significant vegetation and is of high quality	
			High (5)	Nar	rative De	scription of Vegetation Quality	
			Moderately high(4) Moderate (3)	4	low	Low spp diversity and/or predomi disturbance tolerant native spec	ies
			Moderately low (2) Low (1) None (0) erage of invasive plants. F		mod	Native spp are dominant compon although nonnative and/or distu can also be present, and specie moderately high, but generally	rbance tolerant native spp es diversity moderate to v/o presence of rare
			1 ORAM long form for list.	Add	695365	threatened or endangered spp	
		or deduc	t points for coverage Extensive >75% cover (- Moderate 25-75% cover Sparse 5-25% cover (-1)	(-3)	high	A predominance of native species and/or disturbance tolerant nati absent, and high spp diversity a the presence of rare, threatene	ve spp absent or virtually and often, but not always,
			Nearly absent <5% cove				
		\times	Absent (1)	Mu		Open Water Class Quality	
			otopography.		0	Absent <0.1ha (0.247 acres)	
			present using 0 to 3 scale		1	Low 0.1 to <1ha (0.247 to 2.47 ac	
		Q.	Vegetated hummucks/tu		2	Moderate 1 to <4ha (2.47 to 9.88	acres)
		0	Coarse woody debris >1 Standing dead >25cm (1	0in) dbh	3	High 4ha (9.88 acres) or more	
		- L	Amphibian breeding poo	ls <u>Mic</u>		aphy Cover Scale	
				-	0	Absent	
)#	D a	2	Present very small amounts or if of marginal quality Present in moderate amounts, but	
				1 <u>2</u>		quality or in small amounts of h	ighest quality
	÷				3	Present in moderate or greater a and of highest quality	mounts
41							

Site: ATP-So	auth Canton	Rater(s): K(\)	Date: 9 8 20	7
00	Metric 1. Wetland A	area (size).	WOOS-FEM-CATMODZ	
max 6 pts. subtotal	Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <25 acres (4 to <10.1 to <25 acres (4 to <10.1 to <10.1 to <10 acres (1.2 to <40.1 to <0.3 acres (0.12 to <10.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts)) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) =0.12ha) (1 pt)	···	
99	Metric 2. Upland bu	iffers and surround	ling land use.	
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	Im (164ft) or more around wetland p 25m to <50m (82 to <164ft) around 10m to <25m (32ft to <82ft) around 10m average <10m (<32ft) around wetla 10m Select one or double check and 10m older forest, prairie, savannah, will 10m), shrub land, young second growth	perimeter (7) d wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) a forest. (5) servation tillage, new fallow field. (3)	
18 27	Metric 3. Hydrology	/ .		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select of	ice water (3) ke or stream) (5)	Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human us Part of wetland/upland (e.g. forest), compl Part of riparian or upland corridor (1) Duration inundation/saturation. Score one or db Semi- to permanently inundated/saturated	lex (1) I check
	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog	(2)	Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in	, ,
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (nonstormwater) filling/grading road bed/RR track dredging other	
10 31	Metric 4. Habitat Al	teration and Devel	opment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovening (2) Recent or no recovery (1) 4b. Habitat development. Select onl			
4.	Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)	y one and assign score.		
	Poor (1) 4c. Habitat alteration. Score one or	double check and average.		
37 subtotal this pag	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment	

Site: AP-S	with Canton Rater	(s): KL	Date: 9 8 2017
37 subtotal first p	T	de	WOOS-PEM-CATMODZ
0 37	Metric 5. Special Wetlan	us.	
max 10 pts. subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10)		
	Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open	estricted hydrol	
	Relict Wet Praines (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	atened or enda fowl habitat or	usage (10)
0 37	Metric 6. Plant communi	ities, int	erspersion, microtopography.
max 20 pts. subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
	Score all present using 0 to 3 scale.	0 1	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed Emergent	3.	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
	Shrub		significant part but is of low quality
	Forest	2	Present and either comprises significant part of wetland's
	Mudflats	_	vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
	Select only one.		
	High (5)	Narrative D	escription of Vegetation Quality
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1)		although nonnative and/or disturbance tolerant native spp
	None (0) 6c. Coverage of invasive plants. Refer		can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh		
	Amphibian breeding pools		raphy Cover Scale
		0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
37	5		and of highest quality

Site:	HEP S	outh	cantor			Rater(s): K	ע			Date: 9	8 2017	
3	3	Met	tric 1.	Wetland	l Aı	ea (size).	W	006-1	PEM-CAT	2_		
max 6 pts.	subtotal	3	>50 ac 25 to < 10 to < 3 to <1 0.3 to < 0.1 to < <0.1 ac	lass and assign res (>20.2ha) (6 50 acres (10.1 t 25 acres (4 to < 0 acres (1.2 to < 3 acres (0.12 to 0.3 acres (0.04 cres (0.04ha) (0	pts) o <20 10.1h 4ha) o <1.2 to <0 pts)	.2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts) .12ha) (1 pt)						
8	111	Met	tric 2.	Upland	buf	fers and s	urroun	ding	land use	•		
max 14 pts.	subtotal		WIDE. MEDIU NARRO VERY tensity of s VERY LOW. MODE	Buffers average M. Buffers average DW. Buffers averone NARROW. Buff urrounding land LOW. 2nd grow Old field (>10 ye RATELY HIGH.	e 50m rage 2 erage fers av use. th or ears), Resi	elect only one and (164ft) or more are (5m to <50m (82 to 10m to <25m (32) verage <10m (<32) Select one or douolder forest, prairie shrub land, young dential, fenced pasen pasture, row cro	ound wetland o <164ft) arou ft to <82ft) aro ft) around wet able check and e, savannah, v second grow sture, park, co	perimet nd wetla ound wet land peri d averag vildlife ar th forest.	er (7) nd penmeter (4) land perimeter (1) imeter (0) e. rea, etc. (7) (5) uh			
18	29	Met		Hydrolo			PP51	,,	(1,			
max 30 pts.	subtotal	3a. So	High pl Other g Precipit	ater. Score all groundwater (soundwater (s	5)		3	b. Conn	ectivity. Score al 100 year floodpl Between stream Part of wetland/u	ain (1) /lake and othe upland (e.g. for	est), comple	
		3c. Ma	Perenn eximum wa >0.7 (2 0.4 to 0	7.6in) (3) .7m (15.7 to 27.	r (lake ct only	e or stream) (5) y one and assign s		d. Dural	Part of riparian of inundation/sa Semi- to permar Regularly inundation/sa Seasonally inundation	turation. Score nently inundate ated/saturated dated (2)	e one or dbl d/saturated (3)	(4)
		3e. M	odifications			regime. Score on Check all disturba			Seasonally satur	rated in upper	30cm (12in)	(1)
2:		2	Recove			ditch tile dike weir stormwater		Z Z	point source (no filling/grading road bed/RR tra dredging other	ck		¥
7	36	Met	ric 4.	Habitat .	Alt	eration an	d Deve	lopm	ent.			
max 20 pts.	subtotal	4a. Su	None of Recove Recove	none apparent red (3) ring (2)	(4)	or double check a	nd average.					
			bitat devel Excellei Very go Good (§ Modera Fair (3) Poor to Poor (1	nt (7) od (6) i) tely good (4) fair (2)	only	one and assign sco						
Si	36 ubtotal this pa	2	None or Recove	none apparent red (6)	(9)	Check all disturbations of the chief and average of the chief and avera	ances observe tting is removal	ed 🔀	shrub/sapling re herbaceous/aqu sedimentation dredging farming nutrient enrichm	atic bed remov	ral	

Site: /	AEP - S	South Canton Rater	(s): KW	Date: 9 8 2017
S	36 aubtotal first pa] Ige	M000	o-PEM-CAT2
O	36	Metric 5. Special Wetlan	ıds.	
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Ene coastal/tributary wetland-Lake Ene coastal/tributary wetland-Lake Plain Sand Praines (Oak Oper Relict Wet Praines (10) Known occurrence state/federal thresignificant migratory songbird/water Category 1 Wetland. See Question	restricted hydro nings) (10) eatened or end fowl habitat o 1 Qualitative I	ology (5) langered species (10) r usage (10) Rating (-10)
-2	34	Metric 6. Plant commun	ities, in	terspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one.	-	
		High (5)	Narrative I	Description of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0) Absent (1)	Mudflat an	d Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh		
		Amphibian breeding pools	Microtopo	graphy Cover Scale
			0	Absent
				Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
	=		3	Present in moderate or greater amounts
34			2)	and of highest quality

Metric 1. Wetland Area (size). Motified Metric 2 Metric 3	Site: AEY -	South Canton	Rater(s):		Date: 9 11 2017
Prox 6 pits. sublibility Selections size class and assign score. Solections (202 cha) (6 pits) Solections (202 cha) (6 pits) 20 to 4-60 pares (10 to 4 cha) (6 pits) 21 to 4-60 pares (10 to 4 cha) (6 pits) 31 to 10 acres (12 to 4 ha) (5 pits) 31 to 10 acres (12 to 4 ha) (5 pits) 31 to 10 acres (12 to 1 cha) (7 pits) 4 to 4-60 pares (10 to 1 cha) (7 pits) 4 to 1-60 pares (10 to 1 cha) (7 pits) 4 to 1-60 pares (10 to 1 cha) (7 pits) 4 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 1 cares (0.04ha) (7 pits) 4 to 2 to 2 pits 4 to 2 to 2 pits 5 to 2 to 2 pits 5 to 2 to 2 pits 6 to 2 to 2 pits 7 to 2 pits 7 to 2 pits 8 to 2 to 2 pits 8 to 2 to 2 pits 8 to 2 to 2 pits 9 to 2 to 2 pits 1 to 2 to 2 pits 2		Metric 1. Wetland	Area (size).	WOOT-PEM-CA	T2
Solid cares (P20.2 the) (6 pits) Ze to 60 acres (10 to 40 Ath) (6 pits) 10 to 425 acres (4 to 410 the) (4 pits) 3 to 10 acres (10 to 40 acres (10 to 40 hig) (pits) 10 to 425 acres (4 to 410 the) (4 pits) 3 to 10 acres (10 acres (10 to 40 hig) (pits) 10 to 425 acres (4 to 410 the) (4 pits) 3 to 10 acres (10 acres (10 to 40 hig) (pits) 2 to 1 acres (10 acres (10 the) (10 pits) (2 to 1 to 10 pits) 2 to 1 acres (10 acres (10 the) (10 pits) (2 to 1 to 10 pits) 2 to 1 acres (10 acres (10 the) (10 pits) (2 to 1 to 10 pits) 2 to 1 acres (10 acres (10 the) (10 pits) (2 to 1 to 10 pits) 2 to 1 acres (10 acres (10 the) (10 pits) (2 to 1 to 10 pits) 2 to 1 acres (10 acres (10 the) (10 pits) (2 to 1 to 10 pits) (2 to 1 to 10 pits) 2 to 1 acres (10 to 10 pits) (2 to 1 to 10 pits) (2 to 10					
25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <2 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (10.2 to <10.1ha) (4 pts) 13 to <10 acres (10.2 to <10.1ha) (3 pts) 13 to <10 acres (10.2 to <1.2ha) (2 pts) 13 to <10 acres (10.2 to <1.2ha) (2 pts) 13 to <10 acres (10.2 to <1.2ha) (2 pts) 13 to <10 acres (10.2 to <1.2ha) (2 pts) 13 to <10 acres (10.4 to	max o pis. Subjota				
Source of Vater. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (5) Source of Water. Score all that apply. High Pri groundwater (6) Source of Water. Score all that apply. High Pri groundwater (6) Source of Water. Score all that apply. High Pri groundwater (6) Source of Water. Score all that apply. High Pri groundwater (6) Source of Water. Score all that apply. High Pri groundwater (6) Source of Water. Score and of Water. Score all that apply. High Pri groundwater (6) Source of Water. Score and o		25 to <50 acres (10.1 to <	20.2ha) (5 pts)		
3 to <3 acres (0.12 to <1.2ha) (2pts) 1 to <0.3 acres (0.04 ha) (to pts) 2 to <1.2ha) (try to) 2 to <1.2ha) (try					
Metric 2. Upland buffers and surrounding land use. Metric 2. Upland buffers and surrounding land use.		0.3 to <3 acres (0.12 to <	1.2ha) (2pts)		
Metric 2. Upland buffers and surrounding land use. Calculate average buffer width. Select only one and assign score. Do not double check.		0.1 to <0.3 acres (0.04 to	<0.12ha) (1 pt) s)		•
max 16 pts. sufficient 2s. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <25m (32 to 142ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to 42ft) around wetland perimeter (9) 10				unding land use)
WIDE: Buffers average 50m (164ft) or more around welland perimeter (7) NARROW. Buffers average 20m to <50m (82 to 164ft) around welland perimeter (4) NARROW. Buffers average 10m to <50m (820 to 164ft) around welland perimeter (7) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (7) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (7) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (7) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (7) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (7) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (7) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (7) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (8) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (9) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (1) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (1) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (1) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (1) VERY NARROW. Buffers average -10m (<32ft) around welland perimeter (1) VERY NARROW. Buffers average -10m (<32ft) around severage -10m (<32ft) around severage. Buffers average -10m (<32ft) around severage -10m (<32ft) ar	6/0			J	
McDIUM. Buffers average 10m to <50m (82 to <56m (82 to <56m) (82 to	max 14 pts. subtotal				S.
MARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)					
2b. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2d growth or doler forest, prairie, savananah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3a. Sources of Water. Score all that apply. High pt groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Pereinalistrates water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. 2c) (27 (27 (6)) (3) 2c) (27 (27 (6)) (3) None or none apparent (12) Recovering (3) Recent or no recovery (1) 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovering (2) Recovering (2) Recovering (2) Recovering (3) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) None or none apparent (9) Recovering (3) Recovering (3) Recovering (2) Recovering (2) Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (2) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (6) Recovering (6) Recovering (6) Recovering (7) Recovering (7) R		NARROW. Buffers avera	ge 10m to <25m (32ft to <82f	t) around wetland perimeter (*)
VERY LOW. 2nd factor forest, prairie, savannah, wildlife area, etc. (7) Clow. Old field (-70 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)					
Metric 3. Hydrology. Subucial 3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Percipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (ake or stream) (5) Subucial 3a. C. Maximum water depth. Select only one and assign score. >0.7 (27 f/sin) (3) 0.4 to 0.7 m (15.7 to 27.6 in) (2) Seasonally inundated (3) Seasonally inundated (4) Seasonally in		VERY LOW. 2nd growth	or older forest, prairie, savann	ah, wildlife area, etc. (7)	
HiGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)					llow field (3)
max 30 pts. subtoted 3a. Sources of Water. Score all that apply. High pH groundwater (5) Precipitation (1) Seasonal/Intermittent surface water (3) Pertennial surface water (lake or stream) (5) Seasonal/Intermittent surface water (lake or stream) (1) Seasonal/Intermittent surface water (lake or stream) (1) Seasonal/Intermittent surface water (lake or stream) (1) Seasonal/Intermittent surface water (lake or stream) (2) Seasonal/Intermittent surfac					11011 11010. (0)
High pH groundwater (5) The groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perfernial surface water (lake or stream) (5) 3d. Duration indiadion/saturation. Score one or dibthed surface water (ake or stream) (5) 3d. Duration indiadion/saturation. Score one or dibthed seasonally intermediate surface water (lake or stream) (5) 3d. Duration indiadion/saturation. Score one or dibthed seasonally intermetity inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Recovered (7) Recovered (7) Recovered (7) Recovered (7) Recovered (7) Recovering (3) Recent or no recovery (1) Ab. Babitat Alteration and Development. Whose or none apparent (4) Recovered (3) Recovered (4) Recovered (5) Recovered (6) Recovered (7) Recovered (8) Recovered (9) Reco	16 22	Metric 3. Hydrolog	y .		
Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (3) Perennial surface water (3) Perennial surface water (18ke or stream) (5) 3c. Maximum water depth. Select only one and assign score.	max 30 pts. subtotal	3a. Sources of Water. Score all that	it apply.	3b. Connectivity. Score a	ill that apply.
Percipitation (1) Seasonally Intermittent surface water (3) Perennial surface water (3) Perennial surface water (4) Perennial surface water (5) Duration inundation/saturation. Score one or dol ched Seasonally inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally inundated (3) Seasonally inundated (2) Seasonally inundated (3) Seasonally inundated (2) Seasonally inundated (3) Seasonally inundated (2) Seasonally inundated (2) Seasonally inundated (3) Seasonally inundated (2) Seasonally inundated					
Seasonal/Intermittent surface water (3) Perennial surface water (18e or stream) (5) 3c. Maximum water depth. Select only one and assign score. 20.7 (27.6 iii) (3) 20.4 to (-15.7 iii) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovered (3) Recovering (2) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (9) Recove					
3c. Maximum water depth. Select only one and assign score. 3c. Vo. (27.6 in) (3) 3c. Vo. (3 (27.6 in) (2) 3c. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Recovering (3) Recent or no recovery (1) 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovering (3) Recovering (2) Recovering (2) Recovering (3) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (8) Recovering (8) Recovering (8) Recovering (9) Reco		Seasonal/Intermittent surf		Part of riparian	or upland corridor (1)
Solution					
3e. Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) Recovering (3) Recent or no recovery (1) Metric 4. Habitat Alteration and Development. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovering (3) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (8) Recovering		>0.7 (27.6in) (3)		Regularly inund	lated/saturated (3)
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Recovering (3) Recent or no recovery (1) Recent or no recovery (1) Weir Stormwater input Stormwater i					
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Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovering (2) Recovering (2) Recellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovering (3) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (8) Recovering (8) Recovering (8) Recovering (9) Recovering (9			 		
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Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Recent or no recovery (1) Subtotal this page Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Check and average. Shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment					
Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Recovery (1) Recovery (2) Subtotal this page Poor to fair (2) Poor (1) Check all disturbances observed mowing grazing Selective cutting Woody debris removal toxic pollutants Selective cutting Woody debris removal Toxic pollutants Poor to fair (2) Poor (1) Shrub/sapling removal herbaceous/aquatic bed removal grazing dredging farming nutrient enrichment					
Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Recovery (1) Recovery (1) Recovery (2) Recovery (3) Recovery (4) Recovery (5) Recovery (6) Recovering (7) Recovery (8) Recovery (9) Recovery (9) Recovery (1) Recovery (1) Recovery (1)					
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Recovered (6) Recovering (3) Recent or no recovery (1) Subtotal this page Recovered (6) Recovering (3) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Subtotal this page Recovered (6) Recovering (3) Recovering (4) Recovering (3) Recovering (4) Recovering (3) Recovering (4) Recoveri		4c. Habitat alteration. Score one or	double check and average.		<u> </u>
Recovering (3) Recent or no recovery (1) Subtotal this page Recovering (3) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Substituting selective cutting woody debris removal toxic pollutants Herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment					emoval
Recent or no recovery (1) Selective cutting selective cutting woody debris removal toxic pollutants Selective cutting arming nutrient enrichment					
woody debris removal farming nutrient enrichment			clearcutting	sedimentation	
subtotal this page toxic pollutants nutrient enrichment	22				
	J Z	300			nent
		<u> </u>			

Site: A	EP S	suth Canton I	Rater(s):	Date: 9 11 2017
su	32 blotal first pa	ge		WOOT-PEM-CATZ
0	32	Metric 5. Special W	etlands.	
max 10 pts.	subtotal	Check all that apply and score as indi Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary of Lake Erie coastal/tributary of Lake Plain Sand Prairies (0) Relict Wet Prairies (10) Known occurrence state/fec) wetland-unrestricted hy wetland-restricted hydro Dak Openings) (10) deral threatened or end	ology (5) angered species (10)
		Category 1 Wetland. See 0		
2	34	Metric 6. Plant com	munities, int	erspersion, microtopography.
max 20 pts.	subtolal	6a. Wetland Vegetation Communities	. Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Forest	2	Present and either comprises significant part of wetland's
		Mudflats		vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion	on.	vegetation and is of high quality
		Select only one.	7	
		High (5)	Narrative D	Description of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)	V	disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)		although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Ref		moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list. A		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3	5)	absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0		d Onen Water Class Quality
		Absent (1)	0	d Open Water Class Quality Absent <0.1ha (0.247 acres)
		6d. Microtopography. Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 acres)
		Vegetated hummucks/tussi		Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15ci	-	High 4ha (9.88 acres) or more
		Standing dead >25cm (10ir		Inight that (olde dates) of there
		Amphibian breeding pools		graphy Cover Scale
		3 5000	0	Absent
			-1	Present very small amounts or if more common
				of marginal quality
			2	Present in moderate amounts, but not of highest
				quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
011				and of highest quality

Site:	osuth Canton	Rater(s): KU	Date: 9 \	1/2017
	Metric 1. Wetland A	area (size).	WOOB-PEM-CATZ	•
max 6 pts. subtot	Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts)		
	0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)	(0.12ha) (1 pt)	adia a landua	
5 G	Metric 2. Upland bu			
max 14 pts. subtot	WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Re	m (164ft) or more around wetlan 25m to <50m (82 to <164ft) aro e 10m to <25m (32ft to <82ft) aro average <10m (<32ft) around we Select one or double check ar r older forest, prairie, savannah,), shrub land, young second grov	nd perimeter (7) und wetland perimeter (4) round wetland perimeter (1) etland perimeter (0) nd average. wildlife area, etc. (7) wth forest. (5) conservation tillage, new fallow field. (3)	
16 22	Metric 3. Hydrology	.		
max 30 pts. subtota	High pH groundwater (5) Other groundwater (3) Precipitation (1)		3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other h Part of wetland/upland (e.g. fores	
	Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	ke or stream) (5) nly one and assign score.	Part of riparian or upland corridor 3d. Duration inundation/saturation. Score of Semi- to permanently inundated/ Regularly inundated/saturated (3 Seasonally inundated (2)	one or dbl check saturated (4)
	 <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologi 	V 16 24 14 14 14 14 14 14 14 14 14 14 14 14 14	Seasonally saturated in upper 30	cm (12in) (1)
	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)) Check all disturbances obser ditch tile dike weir stormwater input	point source (nonstormwater) filling/grading road bed/RR track dredging other The provided the	
10 32	Metric 4. Habitat Al	teration and Deve		
max 20 pts. subtota	4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)	e or double check and average.		
X.	4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3)	y one and assign score.		
	Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or (1) None or none apparent (9)	double check and average. Check all disturbances obser	ved	
32	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment	
subtotal this	page			

Site: A	P- 5	South Canton Rater	(s): KW	Date: 9 11 2017
SI	32 ubtotal first p	age		WOOB-PEM-CATZ
0	32	Metric 5. Special Wetlar	nds.	
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland- Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	restricted hydro nings) (10) eatened or enda r fowl habitat or 1 Qualitative R	angered species (10) usage (10) ating (-10)
2	34	Metric 6. Plant commun	ities, int	erspersion, microtopography.
max 20 pts.	subtotal	J 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		(i) Forest	2	Present and either comprises significant part of wetland's
		Mudflats Open water		vegetation and is of moderate quality or comprises a small part and is of high quality
		Other6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
**		Select only one.		CONTRACTOR AND
		High (5)	Narrative D	escription of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list. Add	- Li-L	threatened or endangered spp
k5		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high 	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	- 1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh Amphibian breeding pools		raphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
	1		3	Present in moderate or greater amounts
34			8	and of highest quality

Site: ₽	EP S	attac	Carton		Rater(s): LU	V		Date:9	2017
2	2	Ме	tric 1.	Wetland A	rea (size).	11/119-	PEM-CAT	,	
max 6 pts.	subtotal	Selec	>50 acre 25 to <5 10 to <2 3 to <10 0.3 to <3 0.1 to <0	ss and assign scor is (>20.2ha) (6 pts) 0 acres (10.1 to <20 5 acres (4 to <10.10 acres (1.2 to <4ha acres (0.12 to <1.3 3 acres (0.04 to <0 es (0.04ha) (0 pts)	0.2ha) (5 pts) na) (4 pts) I (3 pts) 2ha) (2pts)	00 00 1			2 0
8	10	Ме	tric 2.	Upland bu	ffers and su	ırroundi	ing land use.	•	
max 14 pts.	subtolal		WIDE. E MEDIUM NARRO VERY N. ntensity of sui VERY LC LOW. O MODER	Buffers average 50r I. Buffers average W. Buffers average ARROW. Buffers a rounding land use. DW. 2nd growth or Id field (>10 years) ATELY HIGH. Res	e 10m to <25m (32ft verage <10m (<32ft) Select one or doub older forest, prairie, shrub land, young s	und wetland pe <164ft) around to <82ft) aroun around wetlan le check and a savannah, wild econd growth f ure, park, conso	erimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) forest. (5) ervation tillage, new fall	+	,
12	22	Me		Hydrology	•				
max 30 pts.	subtotal	3a. S	High pH	ter. Score all that a groundwater (5) bundwater (3) tion (1)	apply.	3b.:			
9	E	3c. M	Seasona Perennia Maximum wate >0.7 (27) 0.4 to 0.7	l/Intermittent surfact I surface water (laker depth. Select on	e or stream) (5) ly one and assign sco		Part of riparian of Duration inundation/sa Semi- to permar Regularly inundation/sa Seasonally inundation	or upland corridor (1) turation. Score one nently inundated/satu ated/saturated (3)) or dbl check urated (4)
		3e. N	None or Recovered Recovered	o natural hydrologio none apparent (12) ed (7)	Check all disturbar ditch tile dike weir stormwater ir	ices observed		nstormwater)	(1211) (1)
10	22	Ме	tric 4.	Habitat Alt	eration and	Develo			l
max 20 pts.	subtotal	•	None or Recoveri Recoveri Recent o	none apparent (4) ed (3) ng (2) r no recovery (1) oment. Select only	or double check and				
		4c. H	Very goo Good (5) Moderate Fair (3) Poor to fa	d (6) ely good (4) air (2)	ouble check and ave	rage.		, H	
_ sut	32 Dotal this pa		Recovere Recoveri		Check all disturbar mowing grazing clearcutting selective cutt woody debris toxic pollutan	ing removal	shrub/sapling re herbaceous/aqu sedimentation dredging farming nutrient enrichm	atic bed removal	

Site: ∤	HEP -	South Canton Rater	(s): KL	Date: 9 11 2017
si	32 ubtotal first po	Metric 5. Special Wetlan		09-PEM-CAT2
O	32	тошто ст ороскат тоскат		
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-relate Erie Erie Coastal/tributary wetland-relate Erie Erie Coastal/tributary wetland-relate Erie Erie Erie Erie Erie Erie Erie Eri	estricted hydro ings) (10) atened or enda fowl habitat or 1 Qualitative R	angered species (10) usage (10) ating (-10)
2	34	Metric 6. Plant communi	ities, int	erspersion, microtopography.
max 20 pts.	subtotal] 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
\$?		Other	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one. High (5)	Narrative D	escription of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopog	High 4ha (9.88 acres) or more
		Tpoldir brooding pools	0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
211			3	Present in moderate or greater amounts and of highest quality
54				

Site: A-S	buth Canton Rater(s): KLV	Date: 9111 2011
	Metric 1. Wetland Area (size). Wolo-PEM-CAT2	1 .
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) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
5 5	Metric 2. Upland buffers and surrounding land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average.	
	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallo HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	w field. (3)
16 21	Metric 3. Hydrology.	
max 30 pts. subtotal .	Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Part of wetland/up Part of vetland/up Part o	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) ed/saturated (3)
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Check all disturbances observed ditch tile dike weir stormwater input Check all disturbances observed point source (non filling/grading road bed/RR track dredging other other other)	k
10 31	Metric 4. Habitat Alteration and Development.	
max 20 pts. subtotal	 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) 	
	Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Check all disturbances observed mowing grazing herbaceous/aqua sedimentation	
31 subtotal this pag	selective cutting dredging woody debris removal farming toxic pollutants nutrient enrichme	nt

Site:	P-S	bouth Canton Rate	r(s): KLW	Date: 9 11 2017
SL	3) ubtotal first p	age	W	010-PEM-CATZ
0	31	Metric 5. Special Wetlar	nds.	
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland- Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Ope Relict Wet Prairies (10) Known occurrence state/federal thr Significant migratory songbird/wate Category 1 Wetland. See Question	restricted hydro nings) (10) eatened or enda r fowl habitat or i 1 Qualitative R	logy (5) singered species (10) usage (10) ating (-10)
2	33	Metric 6. Plant commun	ities, int	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale. Aquatic bed Emergent	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
		6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one.		
		High (5)	-	escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)	â -	disturbance tolerant native species
		Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list. Add	1.1.1.	threatened or endangered spp
		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always,
\times		Sparse 5-25% cover (-1)	-	the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		
		Absent (1)	Mudflat and	Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopog	raphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
00				and of highest quality

Site: ₽	TP-S	South Car	ton	Rater(s): KLV			Date: 9 12	2/2017
0	0	Metric 1.	Wetland A	Area (size).	W011-P	FO-CATA	1002	
max 6 pts.	subtotal	>50 a 25 to 10 to 3 to < 0.1 to < 0.1 to < 0.1 to	class and assign sco cres (>20.2ha) (6 pts <50 acres (10.1 to < <25 acres (4 to <10.1 10 acres (1.2 to <4ha <3 acres (0.12 to <1 <0.3 acres (0.04 to <1 acres (0.04ha) (0 pts)	o) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)				
12	12	Metric 2.	Upland bu	iffers and suri	rounding	land use.		
max 14 pls.	subtotal	WIDE MEDI NARF VERY 2b. Intensity of VERY LOW. MODE	. Buffers average 50 UM. Buffers average COW. Buffers average NARROW. Buffers surrounding land use LOW. 2nd growth of Old field (>10 years ERATELY HIGH. Re	Select only one and assign (164ft) or more around 225m to <50m (82 to <164 to <164 to <25m (32ft to <25m (32ft to <25m (32ft) around 25m (wetland perimete 4ft) around wetlar 82ft) around wetland und wetland perin heck and average annah, wildlife are nd growth forest. park, conservation	er (7) and perimeter (4) and perimeter (1) meter (0) a. aa, etc. (7) (5) an tillage, new fallo	ow field. (3)	
10	28	Metric 3.	Hydrology	/-				
max 30 pts.	subtotal	High p Other Precip Seaso Peren 3c. Maximum w >0.7 (0.4 to	Water. Score all that o'H groundwater (5) groundwater (3) itation (1) wall-intermittent surfanial surface water (la ater depth. Select or 27.6in) (3) 0.7m (15.7 to 27.6in) (<15.7in) (1)	nce water (3) nke or stream) (5) nly one and assign score.	×	ectivity. Score all 100 year floodpla Between stream/ Part of wetland/up Part of riparian or ion inundation/sate Semi- to permanda Regularly inunda Seasonally inund Seasonally satura	sin (1) lake and other hu pland (e.g. forest) r upland corridor (uration. Score or ently inundated/sa ted/saturated (3) lated (2)), complex (1) (1) ne or dbl check aturated (4)
		3e. Modification		ic regime. Score one or o				7
	*	Recov Recov	ered (7) ering (3) It or no recovery (1)	ditch tile dike weir stormwater input	X	point source (non filling/grading road bed/RR trac dredging other	·k	
10	38	Metric 4.	Habitat Al	teration and E				
max 20 pts.	subtotal	4b. Habitat deve Second Were Good Moder Fair (3 Poor t Poor (4c. Habitat alter	or none apparent (4) ered (3) ering (2) it or no recovery (1) elopment. Select onlent (7) ood (6) (5) ately good (4) o fair (2) 1) ation. Score one or	y one and assign score.	э.			- 1
sul	36 biotal this pa	Recov Recov Recen	or none apparent (9) ered (6) ering (3) t or no recovery (1)	Check all disturbances mowing grazing clearcutting selective cutting woody debris rer toxic pollutants		shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed removal	

Site: /	AEP S	South Canton	Rater(s): KLV	Date	9/12/2017
Si	38 ubtotal first p	age		WOIL-PFO-CATMODZ	, ,
\circ	38	Metric 5. Special W	etlands.		
max 10 pts.	subtotal	Check all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe	o) wetland-unrestricted hyd wetland-restricted hydrol Dak Openings) (10)	ogy (5)	
		Significant migratory songt			
		Category 1 Wetland. See	Question 1 Qualitative R	ating (-10)	
2	40	Metric 6. Plant com	munities, int	erspersion, microtopogı	raphy.
max 20 pts.	subtotal	ີ6a. Wetland Vegetation Communitie	s. Vegetation	Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres	
		Aquatic bed	1	Present and either comprises small part of	
		Emergent		vegetation and is of moderate quality, or	comprises a
		Shrub		significant part but is of low quality	art of westlands
		Forest	2	Present and either comprises significant p	
		Mudflats		vegetation and is of moderate quality or	comprises a smail
		Open water		part and is of high quality	mono of watlands
		Other	3	Present and comprises significant part, or	more, or wetland's
		6b. horizontal (plan view) Interspersi	on.	vegetation and is of high quality	
		Select only one.	Nametive D	escription of Vegetation Quality	
		High (5) Moderately high(4)	low	Low spp diversity and/or predominance of	nonnative or
		Moderate (3)	IOW	disturbance tolerant native species	nomative of
		Moderately low (2)	mod	Native spp are dominant component of the	vegetation
		Low (1)	mod	although nonnative and/or disturbance to	
		X None (0)		can also be present, and species diversi	
		6c. Coverage of invasive plants. Re	fer	moderately high, but generally w/o prese	
		to Table 1 ORAM long form for list.		threatened or endangered spp	
	55	or deduct points for coverage	high	A predominance of native species, with no	nnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp at	
		Moderate 25-75% cover (-3		absent, and high spp diversity and often	
		Sparse 5-25% cover (-1)	·,	the presence of rare, threatened, or end	
		Nearly absent <5% cover (0)	1 110 1100 1	5
		Absent (1)	-	Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	•
		Score all present using 0 to 3 scale.	- 4	Low 0.1 to <1ha (0.247 to 2.47 acres)	5
		Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88 acres)	
		Coarse woody debris >150		High 4ha (9.88 acres) or more	
		Standing dead >25cm (10i	` '		*
		Amphibian breeding pools		raphy Cover Scale	
		,	0	Absent	
			1	Present very small amounts or if more con	nmon
				of marginal quality	
			2	Present in moderate amounts, but not of h	ighest
				quality or in small amounts of highest qu	
			3	Present in moderate or greater amounts	
	1		_	and of highest quality	
/1/3			÷		

Site: APS	sut	h Canton	Rater(s): KW		Date: 9/12/2017
	M	etric 1. Wetland A	Area (size).	W012-PFO -C	471
max 6 pts. sublotal	Sel	ect one size class and assign sco	те.		
		>50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2	•		
		10 to <25 acres (4 to <10.1			
		3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1			
		0.1 to <0.3 acres (0.04 to <	<0.12ha) (1 pt)		
-	1	<0.1 acres (0.04ha) (0 pts)	'		
5 5		etric 2. Upland bu			
max 14 pts. subtotal	2a.	Calculate average buffer width. WIDE. Buffers average 50	Select only one and assign s Im (164ft) or more around we		(.
		MEDIUM. Buffers average	25m to <50m (82 to <164ft)	around wetland perimeter	
		NARROW. Buffers average VFRY NARROW Buffers	je 10m_to <25m (32ft to <82t average <10m (<32ft) aroun		er (1)
	2b.	Intensity of surrounding land use	 Select one or double ched 	ck and average.	
			r older forest, prairie, savanr), shrub land, young second		
		MODERATELY HIGH. Re	sidential, fenced pasture, pa	rk, conservation tillage, nev	v fallow field. (3)
	7		pen pasture, row cropping, n	nining, construction. (1)	
12 17	M	etric 3. Hydrology	/ ·		
max 30 pts. subtotal	3a.	Sources of Water. Score all that	apply.	3b. Connectivity. Sco	
		High pH groundwater (5) Other groundwater (3)		100 year flo Between str	odplain (1) eam/lake and other human use (1)
		Precipitation (1)		Part of wetla	and/upland (e.g. forest), complex (1)
		Seasonal/Intermittent surfa Perennial surface water (la			ian or upland corridor (1) n/saturation. Score one or dbl check
	3c.	Maximum water depth. Select or		Semi- to per	manently inundated/saturated (4)
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	1 (2)		undated/saturated (3) nundated (2)
		<0.4m (<15.7in) (1)		Seasonally:	saturated in upper 30cm (12in) (1)
	3e.	Modifications to natural hydrolog			
		None or none apparent (12) Recovered (7)	Check all disturbances of ditch		(nonstormwater)
		Recovering (3)	tile	filling/gradin	g
		Recent or no recovery (1)	dike	road bed/RF dredging	R track
			stormwater input	other_S	trip mine
10 27	M	etric 4. Habitat Al	teration and De	evelopment.	
max 20 pts subtotal	_] 4a	Substrate disturbance. Score on	e or double check and avera	age.	
		None or none apparent (4)		<i>a</i>	
		Recovered (3) Recovering (2)			
		Recent or no recovery (1)			
	4b.	Habitat development. Select onl Excellent (7)	y one and assign score.		
		Very good (6)			
		Good (5) Moderately good (4)			
		Fair (3)			
		Poor to fair (2)			
	4c.	Poor (1) Habitat alteration. Score one or	double check and average.		
	Ĭ	None or none apparent (9)	The second secon	oserved	
		Recovered (6)	mowing	shrub/saplin	
	20	Recovering (3) Recent or no recovery (1)	grazing clearcutting	herbaceous	/aquatic bed removal
	1 "		selective cutting	dredging	
27			woody debris remove toxic pollutants	val farming nutrient enri	chment
subtotal this p	age		Lake politicalità		
last revised 1 Februa	ary 200	01 jjm			

Site: AEP 5	buth Canton Rater	(s): KLV		Date: 9 12 2017
27 subtotal first p	Metric 5. Special Wetlan		012-PFO-CAT	
0 2/	Weti o . Opeoidi Wetidii	45 .		
max 10 pts. subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-ru Lake Erie coastal/tributary wetland-ru Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ings) (10) atened or enda fowl habitat or	angered species (10) usage (10)	
2 29	Metric 6. Plant communi	ities, int	erspersion, microto	pography.
	<u></u>			
max 20 pts, subtotal	6a. Wetland Vegetation Communities.	Vegetation 0	Community Cover Scale Absent or comprises < 0.1ha (0.24)	171 acros) contiguous area
	Score all present using 0 to 3 scale. Aquatic bed	- 1	Present and either comprises small	
	Emergent		vegetation and is of moderate q	•
	O Shrub	¥	significant part but is of low qua	lity
	Forest	2	Present and either comprises sign	
	Mudflats		vegetation and is of moderate q	uality or comprises a small
	Open water	-	part and is of high quality	of avenuesne
	Other	3	Present and comprises significant	
	6b. horizontal (plan view) Interspersion. Select only one.	-	vegetation and is of high quality	0
	High (5)	Narrative D	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomi	nance of nonnative or
	Moderate (3)		disturbance tolerant native spec	
,	Moderately low (2)	mod	Native spp are dominant component	
	Low (1)		although nonnative and/or distu	
	None (0)		can also be present, and specie	•
	6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but generally was threatened or endangered spp	wo presence of rare
	or deduct points for coverage	high	A predominance of native species	with nonnative spp
	Extensive >75% cover (-5)	g	and/or disturbance tolerant nation	· · · · · · · · · · · · · · · · · · ·
	Moderate 25-75% cover (-3)		absent, and high spp diversity a	
	Sparse 5-25% cover (-1)		the presence of rare, threatened	d, or endangered spp
	Nearly absent <5% cover (0)	M. J. J. J. J	1 Company Class Consider	2.
	Absent (1) 6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 ac	eres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88	
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
	Standing dead >25cm (10in) dbh	-		
	Amphibian breeding pools	Microtopog	raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if a	more common
		2	of marginal quality Present in moderate amounts, bu	t not of highest
		-	quality or in small amounts of hi	
		3	Present in moderate or greater ar	
200			and of highest quality	
29				

Site: At	1-5u	zth Canton	Rater(s): K	Date: 9 12 2017
0	0	Metric 1. Wetland A	rea (size). W013	-PFO-CATMODZ
max 6 pls. s		Select one size class and assign scor >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1) 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1.0) 0.1 to <0.3 acres (0.04 to <1.0) <0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts) 0.12ha) (1 pt)	
9	9	Metric 2. Upland bu	ffers and surround	ling land use.
max 14 pts. s	*	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years) MODERATELY HIGH. Res	m (164ft) or more around wetland p 25m to <50m (82 to <164ft) around a 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetla Select one or double check and a colder forest, prairie, savannah, will , shrub land, young second growth idential, fenced pasture, park, cons	erimeter (7) d wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) everage. dlife area, etc. (7) forest. (5) servation tillage, new fallow field. (3)
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \) ~ I	HIGH. Urban, industrial, op Metric 3. Hydrology	en pasture, row cropping, mining, o	construction. (1)
1 7	40	a. Sources of Water. Score all that		Connectivity. Score all that apply.
		High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lake) Maximum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	ce water (3) (e or stream) (5) (ly one and assign score.	100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1) Duration inundation/saturation. Score one or dbl check Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2)
	3	 <0.4m (<15.7in) (1) Modifications to natural hydrologic 		
		None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (nonstormwater) filling/grading road bed/RR track dredging other filling/grading
10 7	35	Metric 4. Habitat Alt	eration and Develo	opment.
max 20 pts. si	ubtotal 4	A. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2)	or double check and average.	
		Recent or no recovery (1) b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or de		
subtota	35 al this page	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

Site: /	W-5	South Canton Rate	er(s): KL	Date: 9 12 2017
SI	35 ubtotal first p	-		W013-PFO-CATMODZ
0	35	Metric 5. Special Wetla	ands.	
max 10 pts.	subtotal	Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetlar Lake Erie coastal/tributary wetlar Lake Plain Sand Prairies (Oak O Relict Wet Prairies (10) Known occurrence state/federal t Significant migratory songbird/wa Category 1 Wetland. See Questi	nd-unrestricted hyd nd-restricted hydro penings) (10) hreatened or enda tter fowl habitat or	angered species (10) usage (10)
2	27	-		erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent	* 1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
		Shrub / Forest	2	significant part but is of low quality Present and either comprises significant part of wetland's
		Mudflats	2	vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one.		regetation and to or night quarty
		High (5)	Narrative D	escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)		although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
		6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)	9	and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	20	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)	*	
		Absent (1)	Mudflat and	d Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	. 2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in		High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh		wanter Cover Seels
		Amphibian breeding pools		raphy Cover Scale
			0	Absent Present very small amounts or if more common
				of marginal quality
			2	Present in moderate amounts, but not of highest
				quality or in small amounts of highest quality
			3	Present in moderate or greater amounts and of highest quality
27			-	and or riightest quality

Site: A	EP - 5	South Car	ALON	Rater(s): KL	J	Date: 4	12/2017
2	2	Metric 1	. Wetland A	rea (size).	WOIY-PE	M-CAT2	
max 6 pts.	subtotal	>50 25 tr 10 tr 3 to 0.3 tr <0.1 tr <0.1 tr	e class and assign score acres (>20.2ha) (6 pts) o <50 acres (10.1 to <20 o <25 acres (4 to <10.1h <10 acres (1.2 to <4ha) to <3 acres (0.12 to <1.2 to <0.3 acres (0.04 to <0 acres (0.04ha) (0 pts)	d.2ha) (5 pts) (a) (4 pts) (3 pts) (ha) (2pts) (12ha) (1 pt)	1 = 1,71		
5	7	Metric 2	2. Upland but	fers and su	rrounding	land use.	
max 14 pts.	subtotal	2b. Intensity of LOW MOI	average buffer width. S BE. Buffers average 50n DIUM. Buffers average 2 RROW. Buffers average RY NARROW. Buffers a of surrounding land use. RY LOW. 2nd growth or V. Old field (>10 years), DERATELY HIGH. Resi H. Urban, industrial, ope	n (164ft) or more arour 25m to <50m (82 to <1 10m to <25m (32ft to verage <10m (<32ft) a Select one or double older forest, prairie, sa shrub land, young sed dential, fenced pasturi	nd wetland perimeter 64ft) around wetland <82ft) around wetland round wetland perind check and average avannah, wildlife are cond growth forest. (e. park, conservation	r (7) d perimeter (4) and perimeter (1) neter (0) a, etc. (7) 5) therefore the second	¥
15	22	Metric 3	B. Hydrology				
max 30 pts.	subtotal	High Other Preceded Sear Pereceded S	of Water. Score all that an pH groundwater (5) er groundwater (3) sipitation (1) sonal/intermittent surfacemial surface water (lak water depth. Select only (27.6in) (3) to 0.7m (15.7 to 27.6in) (1) ons to natural hydrologic	e water (3) e or stream) (5) y one and assign scor (2)	3d. Duratio	ctivity. Score all that apply. 100 year floodplain (1) Between stream/lake and othe Part of wetland/upland (e.g. fo Part of riparian or upland corrion inundation/saturation. Scor Semi- to permanently inundate Regularly inundated/saturated Seasonally inundated (2) Seasonally saturated in upper average.	rest), complex (1) dor (1) re one or dbl check ed/saturated (4) l (3)
::		Non Reco	e or none apparent (12) overed (7) overing (3) ent or no recovery (1)	Check all disturbance ditch tile dike weir stormwater inp	es observed	point source (nonstormwater) filling/grading road bed/RR track dredging other	
10	32		I. Habitat Alt		-	ent.	
max 20 pts.	subtotal	4b. Habitat de Exce Very Goo Mod Fair Pool	r to fair (2)	one and assign score			
sul	32 btotal this pa	Non Reco	eration. Score one or die or none apparent (9) overed (6) overing (3) ent or no recovery (1)	Check all disturbance mowing grazing clearcutting selective cuttir woody debris retoxic pollutants	es observed	shrub/sapling removal herbaceous/aquatic bed remo sedimentation dredging farming nutrient enrichment	val

Site: A	tP - S	South Canton Ra	ter(s): KU	Date:9 12 2017				
su	32 obtotal first pa	Tours of the second sec		EM-CAT2				
0	32	Metric 5. Special Wet	ianus.					
max 10 pts.	subtotal	Check all that apply and score as indicate Bog (10) Fen (10) Old growth forest (10)	ed.:					
		Lake Erie coastal/tributary wetle Lake Erie coastal/tributary wetle Lake Plain Sand Prairies (Oak Relict Wet Prairies (10)	Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Praines (Oak Openings) (10) Relict Wet Praines (10)					
		Known occurrence state/federa Significant migratory songbird/v Category 1 Wetland. See Ques	vater fowl habitat or	usage (10)				
-2	30	1 —	unities, inte	erspersion, microtopography.				
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation (Community Cover Scale				
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area				
		Aquatic bed	1	Present and either comprises small part of wetland's				
		Emergent		vegetation and is of moderate quality, or comprises a				
				significant part but is of low quality				
		Forest	2	Present and either comprises significant part of wetland's				
				vegetation and is of moderate quality or comprises a small				
		Open water		part and is of high quality				
		Other	3	Present and comprises significant part, or more, of wetland's				
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality				
		Select only one.						
		High (5)	Narrative De	escription of Vegetation Quality				
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or				
		Moderate (3)		disturbance tolerant native species				
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,				
		Low (1)	mod	although nonnative and/or disturbance tolerant native spp				
		None (0)		can also be present, and species diversity moderate to				
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare				
		to Table 1 ORAM long form for list. Add		threatened or endangered spp				
		or deduct points for coverage	high	A predominance of native species, with nonnative spp				
		Extensive >75% cover (-5)	nign	and/or disturbance tolerant native spp absent or virtually				
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,				
				the presence of rare, threatened, or endangered spp				
		Sparse 5-25% cover (-1)	*	the presence of fare, threatened, of endangered app				
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality				
		` '	0	Absent <0.1ha (0.247 acres)				
		6d. Microtopography.	1	Low 0.1 to <1ha (0.247 acres)				
		Score all present using 0 to 3 scale. Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres)				
				High 4ha (9.88 acres) or more				
		Coarse woody debris >15cm (6		riigii 4ila (5.56 acres) di more				
		Standing dead >25cm (10in) db		raphy Cover Scale				
		Ampinolari breeding pools						
			0	Absent Present year small amounts or if more common				
			2	Present very small amounts or if more common of marginal quality				
				Present in moderate amounts, but not of highest				
			2	_				
				quality or in small amounts of highest quality				
			3	Present in moderate or greater amounts				
				and of highest quality				

Site: AFF-	South Canton Rater(s): KL\	Date:9 12 20 7
2 2	10.2%	015-PEM-CATMODZ
max 6 pts. subtotal	Select one size class and assign score.	ole POS CHIMODE
	>50 acres (>20.2ha) (6 pts)	
	25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts)	
	3 to <10 acres (1.2 to <4ha) (3 pts)	
	0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	
	<0.1 acres (0.04ha) (0 pts)	
4/6	Metric 2. Upland buffers and surrour	nding land use.
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one and assign score	
	WIDE. Buffers average 50m (164ft) or more around wetlan MEDIUM. Buffers average 25m to <50m (82 to <164ft) aro	
	NARROW. Buffers average 10m to <25m (32ft to <82ft) a	round wetland perimeter (1)
	VERY NARROW. Buffers average <10m (<32ft) around we 2b. Intensity of surrounding land use. Select one or double check at	
	VERY LOW. 2nd growth or older forest, prairie, savannah,	
	LOW. Old field (>10 years), shrub land, young second grow	
	MODERATELY HIGH. Residential, fenced pasture, park, of HIGH. Urban, industrial, open pasture, row cropping, minir	
24 30	Metric 3. Hydrology.	(·)
max 30 pts. subtotal	3a. Sources of Water. Score all that apply.	3b. Connectivity. Score all that apply.
	High pH groundwater (5)	100 year floodplain (1) Between stream/lake and other human use (1)
	Other groundwater (3) Precipitation (1)	Part of wetland/upland (e.g. forest), complex (1)
	Seasonal/Intermittent surface water (3)	Part of ripanan or upland corridor (1)
	Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score.	3d. Duration inundation/saturation. Score one or dbl check Semi- to permanently inundated/saturated (4)
	>0.7 (27.6in) (3)	Regularly inundated/saturated (3)
	0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1)	Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
	3e. Modifications to natural hydrologic regime. Score one or double	
	None or none apparent (12) Check all disturbances obser	
	Recovered (7) Recovering (3)	point source (nonstormwater) filling/grading
	Recent or no recovery (1)	road bed/RR track
	weir	dredging
	stormwater input	other Strip mine
8 38	Metric 4. Habitat Alteration and Deve	elopment.
max 20 pts. subtotal	4a. Substrate disturbance. Score one or double check and average.	
	None or none apparent (4) Recovered (3)	
14	Recovering (2)	
	Recent or no recovery (1)	
	4b. Habitat development. Select only one and assign score. Excellent (7)	
	Very good (6)	
	Good (5) Moderately good (4)	*
	Fair (3)	
	Poor to fair (2)	
	Poor (1) 4c. Habitat alteration. Score one or double check and average.	
	None or none apparent (9) Check all disturbances obser	ved
	Recovered (6) mowing	shrub/sapling removal
	Recovering (3)	herbaceous/aquatic bed removal sedimentation
	Recent or no recovery (1)	dredging
128	woody debris removal	farming
subtotal this pa	toxic pollutants	nutrient enrichment
ast revised 1 Februa		^

Site:	EP - '	South	Cantan	Rater((s): KW	Date:	9/12/2017
	38					WOIS-PEM - CATMODZ WOIS-PUB-CATMODZ	1.7/1
0	abtotal first pa	Metri	-	cial Wetlan		WOIS-PUB-CATMOD 2	
max 10 pts.	subtotal	Check all	Bog (10) Fen (10) Old growth fores Mature forested Lake Ene coasta Lake Erie coasta Lake Plain Sand Relict Wet Prain Known occurren Significant migra	wetland (5) al/tributary wetland-u al/tributary wetland-re I Prairies (Oak Openi es (10)	estricted hydrol ings) (10) atened or enda fowl habitat or	ngered species (10) usage (10)	
4	42	Metri	ic 6. Plan	it communi	ties, inte	erspersion, microtopogra	aphy.
max 20 pts.	subtotal	6a. Wetla	and Vegetation C	ommunities.	Vegetation (Community Cover Scale	
			present using 0 t	o 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres)	
		1	Aquatic bed Emergent Shrub		1	Present and either comprises small part of v vegetation and is of moderate quality, or c significant part but is of low quality	
		O	Forest Mudflats Open water		2	Present and either comprises significant par vegetation and is of moderate quality or co part and is of high quality	
			Otherontal (plan view)	Interspersion.	3	Present and comprises significant part, or m vegetation and is of high quality	ore, of wetland's
		Select on	1			on the state of th	
			High (5) Moderately high Moderate (3)	(4)	low	Low spp diversity and/or predominance of n disturbance tolerant native species	onnative or
		,	Moderately low (Low (1)	(2)	mod	Native spp are dominant component of the valthough nonnative and/or disturbance tole	-
			None (0) rage of invasive p I ORAM long for			can also be present, and species diversity moderately high, but generally w/o presen threatened or endangered spp	
			points for covera Extensive >75% Moderate 25-75 Sparse 5-25% c	age cover (-5) % cover (-3) over (-1)	high	A predominance of native species, with non and/or disturbance tolerant native spp abs absent, and high spp diversity and often, the presence of rare, threatened, or endar	ent or virtually out not always,
		· ·	Nearly absent <	5% cover (0)	98 - 46 - 4	One Water Class Oveller	
		6d Miss	Absent (1) otopography.		Mudilat and	Open Water Class Quality Absent <0.1ha (0.247 acres)	
			present using 0 to	o 3 scale	1	Low 0.1 to <1ha (0.247 to 2.47 acres)	
			Vegetated humr		2	Moderate 1 to <4ha (2.47 to 9.88 acres)	
				ebris >15cm (6in)	3	High 4ha (9.88 acres) or more	
				25cm (10in) dbh	•		
		Ť	Amphibian bree		Microtopog	raphy Cover Scale	
		-1-			0	Absent	
						Present very small amounts or if more comr of marginal quality	
					2	Present in moderate amounts, but not of hig quality or in small amounts of highest qua	
					3	Present in moderate or greater amounts and of highest quality	IX.
42							

Site: ATP Sou	th Canton	Rater(s): KU	Date: (1/12/2017
	Metric 1. Wetland A	rea (size). Wolk	-PEM-CATZ	9
max 6 pts. subtotal	Select one size class and assign scol	0.2ha) (5 pts)		
	3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)	2ha) (2pts) 0.12ha) (1 pt)		
5 6	Metric 2. Upland bu	ffers and surround	ing land use.	
2	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth of LOW. Old field (>10 years) MODERATELY HIGH. Res HIGH. Urban, industrial, op	m (164ft) or more around wetland p. 25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) around e 10m to <25m (32ft to <82ft) around wetlan Select one or double check and a rolder forest, prairie, savannah, wild, shrub land, young second growth sidential, fenced pasture, park, conspen pasture, row cropping, mining, o	erimeter (7) I wetland perimeter (4) Ind wetland perimeter (1) Ind perimeter (0) Ind perimeter (1) Ind	,
12 18 1	Metric 3. Hydrology		4	
3	Ba. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfactory Perennial surface water (lall sc. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) Be. Modifications to natural hydrological	ce water (3) (e or stream) (5) 3d. (ly one and assign score.	Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and otl Part of wetland/upland (e.g. Part of riparian or upland cor Duration inundation/saturation. Sc Semi- to permanently inundate Regularly inundated/saturate Seasonally inundated (2) Seasonally saturated in uppeck and average.	forest), complex (1) ridor (1) ore one or dbl check ated/saturated (4) ed (3)
	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (nonstormwater filling/grading road bed/RR track dredging other Shipmine)
10 28	Metric 4. Habitat Al	teration and Develo	opment.	
	A. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) B. Habitat development. Select only			
	Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)			
4	c. Habitat alteration. Score one or one or one or one or one or one apparent (9)	louble check and average. Check all disturbances observed		
28	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling removal herbaceous/aquatic bed rem sedimentation dredging farming nutrient enrichment	ioval
subtotal this page last revised 1 February	2001 jjm			

Site: AFP -	South Canton Rater	(s): KLV	Date: 9 12 2017
28 subtotal first p	Dage	U	JOILO-PEM-CATZ
0 28	Metric 5. Special Wetlan	ds.	
max 10 pts. subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-ru Lake Erie coastal/tributary wetland-ru Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question Metric 6. Plant communications	estricted hydro ings) (10) atened or enda fowl habitat or 1.Qualitative R	ngered species (10) usage (10)
max 20 pts. subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
max 20 ptd. dabtota	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
	Forest O Mudflats O Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
	6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	Select only one. High (5)	Narrative D	escription of Vegetation Quality
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopog	raphy Cover Scale
	Authunian preeding hoop	0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		3	Present in moderate or greater amounts and of highest quality
32			and or ingrisor quanty

Site: AP-So	uth Canton	Rater(s): KLV		Date:9 12 2017
M	etric 1. Wetland A	rea (size).	7-PEM-CATI	
max 6 pts. subtotal Se	Section Size class and assign scor	0.2ha) (5 pts) na) (4 pts) I (3 pts) 2ha) (2pts)		
4 5 M	etric 2. Upland bu	ffers and surround	ing land use.	
	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years) MODERATELY HIGH. Res	n (164ft) or more around wetland p 25m to <50m (82 to <164ft) around 10m to <25m (32ft to <82ft) around verage <10m (<32ft) around wetlan	erimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. dlife area, etc. (7) forest. (5) vervation tillage, new fallo	4
11 16 M	etric 3. Hydrology			
Зс.	Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lak Maximum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) Modifications to natural hydrologic	te water (3) e or stream) (5) 3d. ly one and assign score. (2)	Part of wetland/u Part of riparian o Duration inundation/sat Semi- to perman Regularly inunda Seasonally inunda Seasonally satur	ain (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) curation. Score one or dbl check ently inundated/saturated (4) tted/saturated (3)
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)			ck
7 23 M	etric 4. Habitat Alt	eration and Develo	pment.	
	Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)			
4c .	Poor (1) Habitat alteration. Score one or d	1 USB - 01410		
subtotal this page	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rer herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed removal

7

Site:	AEP-	South Canton R	ater(s): ドム	Date: 9 12 2017			
s	23 ubtotal first p	n'		017-PEM-CATI			
0	23	Metric 5. Special We	tlands.				
max 10 pts.	subtotal	Check all that apply and score as indica	ted.				
		Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10)					
0	23	Category 1 Wetland. See Qu Metric 6. Plant comn		erspersion, microtopography.			
max 20 pts.	subtotal	J 6a. Wetland Vegetation Communities.	Vegetation 0	Community Cover Scale			
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area			
		Aquatic bed Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality			
		Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality			
		Other	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality			
		Select only one.	5	The second was a supplied that the second se			
		High (5) Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species			
		Moderately low (2) Low (1)	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp			
		None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp			
		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp			
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality			
	1.0	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)			
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)			
		Vegetated hummucks/tussuck Coarse woody debris >15cm ((6in) 3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more			
7.		Standing dead >25cm (10in) o		aphy Cover Scale			
		Amphibian breeding pools	0 Wicrotopogr	Absent			
			i	Present very small amounts or if more common of marginal quality			
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality			
			3	Present in moderate or greater amounts			

Site: ₽	H-5	With Canton Rater(s): KLV	Date: 8/13/2011
2	2	Metric 1. Wetland Area (size). WOIB-PEM- CAT	2
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) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
9	11	Metric 2. Upland buffers and surrounding land t	Jse.
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double che WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (8) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (9) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (9) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5)	er (4) eter (1)
		MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, n HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	ew fallow field. (3)
18	29	Metric 3. Hydrology.	
max 30 pts.	Subtotal	Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Between s Part of we Part of rip Part of rip Regularly Semi- to p Regularly Seasonall	core all that apply. floodplain (1) stream/lake and other human use (1) stland/upland (e.g. forest), complex (1) arian or upland corridor (1) tion/saturation. Score one or dbl check termanently inundated/saturated (4) inundated/saturated (3) y inundated (2) y saturated in upper 30cm (12in) (1)
		None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Check all disturbances observed ditch tile dike weir stormwater input Check all disturbances observed ditch filling/grad road bed/l	
10	39	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6)	
	20		ling removal us/aquatic bed removal ation
sub	ototal this pa	toxic pollutants nutrient ei	nrichment

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Site: /	AP-S	suth Canton	Rater(s): KLV	Date:9 13 2017
s	39 subtotal first p	age	- 13-37 - 13-37 - 13-37	W018-PEM-CAT2 W018-PSS-CAT2
0	391	Metric 5. Special V		WOOD FEE CHI Z
max 10 pts.	subtotal	Lake Erie coastal/tributar	(5) y wetland-unrestricted hyd y wetland-restricted hydrol	· ·
		Significant migratory song Category 1 Wetland. See	federal threatened or enda gbird/water fowl habitat or e Question 1 Qualitative Re	usage (10) ating (-10)
6	45	Metric 6. Plant cor		erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communiti	es. Vegetation (Community Cover Scale
		Score all present using 0 to 3 scale. Aquatic bed Emergent	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Forest Mudflats	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small
		Open water	<u></u>	part and is of high quality
		6b. horizontal (plan view) Interspers	3 sion.	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one. High (5)	Narrative De	escription of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. R		Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list.	-	threatened or endangered spp
	(Λ	or deduct points for coverage Extensive >75% cover (-5 Moderate 25-75% cover (Sparse 5-25% cover (-1)	-3) 	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover		
		Absent (1)		Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tus	•	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15 Standing dead >25cm (10	in) dbh	High 4ha (9.88 acres) or more
		Amphibian breeding pools		Absent
			0	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts and of highest quality

Site:AEP-	wh Canton Rater(s): KLV Date: 9 13	2017
2 2	Metric 1. Wetland Area (size).	•
max 6 pts. subtot	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	· · ·
12 14	Metric 2. Upland buffers and surrounding land use.	
max 14 pts. subtot	a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) b. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
110 20	Metric 3. Hydrology.	
max 30 pts. subtote	a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) 3b. Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other hum Part of wetland/upland (e.g. forest), Part of ripanian or upland corridor (1)	complex (1)
	Perennial surface water (lake or stream) (5) Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) <	uratėd (4)
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Recovery (1) Recovery (1) Recovering (3) Recent or no recovery (1)	
11 4	Metric 4. Habitat Alteration and Development.	ļ
max 20 pts. subtotal	A. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6)	
	Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or double check and average.	
subtotal this	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	

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Site: At	PS	butth Canton	Rater(s): KLV	Date: 9 13 2017
subto	4 otal first pa	age	W019-PEA	n-CAT2
0 1	41	Metric 5. Special We	etlands.	
max 10 pts.	sublotal	Check all that apply and score as indic Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5)		
		Lake Erie coastal/tributary w Lake Erie coastal/tributary w Lake Plain Sand Prairies (O Relict Wet Prairies (10) Known occurrence state/fed Significant migratory songbii Category 1 Wetland. See Q	etland-restricted hydrological ak Openings) (10) eral threatened or enda rd/water fowl habitat or u	ngered species (10) usage (10)
4 1	45			erspersion, microtopography.
max 20 pts. s	subtotal	6a. Wetland Vegetation Communities.	Vegetation (Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent Shrub	- 1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
		Other6b. horizontal (plan view) Interspersion	3 	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one.	Managha Da	de New of Venetation Overline
		High (5)		scription of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1) None (0)		although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refe to Table 1 ORAM long form for list. Ad		moderately high, but generally w/o presence of rare threatened or endangered spp
		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		Open Water Class Quality
		Absent (1) 6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussus		Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm		High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) Amphibian breeding pools	Microtopogr	aphy Cover Scale
		*	0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
11:00			3	Present in moderate or greater amounts and of highest quality

Site: AP - S	Buth Canton Rater(s): KLV	Date: 9 3 2017
22	Metric 1. Wetland Area (size). W020 - PSS-CAT M	002
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) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	
9 11	Metric 2. Upland buffers and surrounding land use.	*
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check. [] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)	
	MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)	
	VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average.	
	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5)	
	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallo HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	w field. (3)
16 27	Metric 3. Hydrology.	
max 30 pts. subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) 3b. Connectivity. Score all the connectivity of the c	
	Other groundwater (3) Between stream/l	ake and other human use (1)
	Seasonal/Intermittent surface water (3) Part of riparian or	pland (e.g. forest), complex (1) upland corridor (1)
	3c. Maximum water depth. Select only one and assign score. Semi- to permane	ration. Score one or dbl check ntly inundated/saturated (4)
	>0.7 (27.6in) (3) Regularly inundat 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundat	
	 <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. 	ted in upper 30cm (12in) (1)
	None or none apparent (12) Check all disturbances observed	
	Recovered (7) Recovering (3) ditch tile point source (non- filling/grading	
	Recent or no recovery (1) dike weir road bed/RR track	
		mine
11 38	Metric 4. Habitat Alteration and Development.	
max 20 pts. subtotal	4a. Substrate disturbance. Score one or double check and average. None or none apparent (4)	
9	Recovered (3) Recovering (2)	
1.7	Recent or no recovery (1) 4b. Habitat development. Select only one and assign score.	
8	Excellent (7)	
	Very good (6) Good (5)	
	Moderately good (4) Fair (3)	
	Poor to fair (2) Poor (1)	
	4c. Habitat alteration. Score one or double check and average.	
	None or none apparent (9) Check all disturbances observed Recovered (6) shrub/sapling rem	
	Recovering (3) grazing herbaceous/aqua	iic bed removal
28	selective cutting dredging woody debris removal farming	Δ
subtotal this pa	toxic pollutants nutrient enrichme	nt

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Site: AP-9	bouth Cantin Rater	(s): KL	Date: 9 13 2017
38 subtotal first pa	nge Metric 5. Special Wetlan		1020-PSS-CATMOD2
0 30	₽	-	
max 10 pts. subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-Lake Erie coastal/tributary wetland-Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro nings) (10) ratened or enda fowl habitat or 1 Qualitative R	angered species (10) usage (10) ating (-10)
1 39			erspersion, microtopography.
max 20 pts. subtotal	6a. Wetland Vegetation Communities.		Community Cover Scale
	Score all present using 0 to 3 scale. Aquatic bed Emergent Shrub	1	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
	Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
×	Other	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	Select only one. High (5)	Narrative D	escription of Vegetation Quality
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)		Open Water Class Quality
	6d. Microtopography. Score all present using 0 to 3 scale.	1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopoa	raphy Cover Scale
	Firmzieri zizeziing poolo	0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
×.		3	Present in moderate or greater amounts and of highest quality

Site: AP-South Canton	Rater(s): KUV	Date: 9 13/2017
Metric 1. Wetland A	rea (size). Wozı -	-PUB-CATMODZ
max 6 pts. subtotal Select one size class and assign scor	э.	*
25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1		
3 to <10 acres (1.2 to <4ha)	(3 pts)	
0.3 to <3 acres (0.12 to <1.2 0.1 to <0.3 acres (0.04 to <		
<0.1 acres (0.04ha) (0 pts) Metric 2. Upland but	ffers and surroundir	ng land use.
9 9 Metric 2. Opiana ba		.9
max 14 pts. subtotal 2a. Calculate average buffer width. S WIDE. Buffers average 50r	elect only one and assign score. Do 1 (164ft) or more around wetland pen	
MEDIUM. Buffers average	25m to <50m (82 to <164ft) around w 10m to <25m (32ft to <82ft) around	etland perimeter (4)
	verage <10m (<32ft) around wetland	perimeter (0)
VERY LOW. 2nd growth or	older forest, prairie, savannah, wildlif	e area, etc. (7)
MODERATELY HIGH. Res	shrub land, young second growth for dential, fenced pasture, park, conser-	vation tillage, new fallow field. (3)
Metric 3. Hydrology	en pasture, row cropping, mining, con	struction. (1)
15 24 Metric 3: Trydrology		*
max 30 pts. subtotal 3a. Sources of Water. Score all that a	apply. 3b. C	onnectivity. Score all that apply. 100 year floodplain (1)
Other groundwater (3) Precipitation (1)		Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1)
Seasonal/Intermittent surface		Part of riparian or upland corridor (1)
Perennial surface water (lak 3c. Maximum water depth. Select on		uration inundation/saturation. Score one or dbl check Semi- to permanently inundated/saturated (4)
>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	2)	Regularly inundated/saturated (3) Seasonally inundated (2)
< <	regime. Score one or double check	Seasonally saturated in upper 30cm (12in) (1) and average.
None or none apparent (12)	Check all disturbances observed	
Recovered (7) Recovering (3)	ditch tile	point source (nonstormwater) filling/grading
Recent or no recovery (1)	dike weir	road bed/RR track dredging
	stormwater input	other Stylp MINE
10 34 Metric 4. Habitat Alt	eration and Develop	oment.
max 20 pts. subtotal 4a. Substrate disturbance. Score one	or double check and average.	
None or none apparent (4) Recovered (3)		
Recovering (2) Recent or no recovery (1)		
4b. Habitat development. Select only Excellent (7)	one and assign score.	
Very good (6) Good (5)	+-	
Moderately good (4)		
Fair (3) Poor to fair (2)		
Poor (1) 4c. Habitat alteration. Score one or d	ouble check and average.	
None or none apparent (9) Recovered (6)	Check all disturbances observed	shrub/sapling removal
Recovering (3)	mowing grazing	herbaceous/aquatic bed removal
Recent or no recovery (1)	clearcutting selective cutting	sedimentation dredging
54	woody debris removal toxic pollutants	farming nutrient enrichment
subtotal this page		

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Site:	HP-S	outh Cantm Ra	iter(s): KL	Date: 9 13 2017
s	34 subtotal first pa	age	W	JOZI-PUB-CATMODZ
0	34	Metric 5. Special Wet	lands.	
max 10 pts.	subtotal	Check all that apply and score as indicate Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5)	ed.	
		Lake Erie coastal/tributary wetle Lake Erie coastal/tributary wetle Lake Plain Sand Prairies (Oak Relict Wet Prairies (10) Known occurrence state/federa Significant migratory songbird/v Category 1 Wetland. See Que	and-restricted hydro Openings) (10) Il threatened or enda water fowl habitat or	ngered species (10) usage (10)
3	37	Metric 6. Plant comm		erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.		Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		OShrub		
		Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
		Other 6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one. High (5)	Narrative D	escription of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderately low (2) Low (1) None (0)	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
	577	to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		
		Absent (1)		Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6	oh .	High 4ha (9.88 acres) or more
		Amphibian breeding pools	0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts and of highest quality

Site: A	EP-Su	th Canton	Rater(s): KLV	1	Date: 9 13 2017
ř.	1	Metric 1. Wetland	Area (size).	WOZZ-PUB-CAT	MOD2
max 6 pts.	sublotal	Select one size class and assign so >50 acres (>20.2ha) (6 p 25 to <50 acres (10.1 to 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4 0.3 to <3 acres (0.12 to <0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pt	ts) <20.2ha) (5 pts) J.1ha) (4 pts) ha) (3 pts) :1.2ha) (2pts) o <0.12ha) (1 pt)		
12	13	Metric 2. Upland b	uffers and su	rrounding land us	e.
max 14 pts.	subtotal	NARROW. Buffers averaged VERY NARROW. Buffer 2b. Intensity of surrounding land us VERY LOW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. F	50m (164ft) or more arounge 25m to <50m (82 to <1 age 10m to <25m (32ft to s average <10m (<32ft) age. Select one or double or older forest, prairie, sars), shrub land, young sectesidential, fenced pasture	d wetland perimeter (7) 64ft) around wetland perimeter (4 <82ft) around wetland perimeter (5) round wetland perimeter (7) check and average. roundhy, wildlife area, etc. (7)	(1)
15	28	Metric 3. Hydrolog		k-r:	
max 30 pts.	sublotal	3a. Sources of Water. Score all th High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent sur Perennial surface water (3c. Maximum water depth. Select	face water (3) lake or stream) (5)	Part of wetlan Part of riparial 3d. <u>Duration</u> inundation/	
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6i) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolo None or none apparent (Recovered (7) Recovering (3) Recent or no recovery (1	ogic regime. Score one or Check all disturbance ditch tile	Regularly inur Seasonally inur Seasonally sa r double check and average. es observed point source (filling/grading road bed/RR t dredging	ndated/saturated (3) undated (2) turated in upper 30cm (12in) (1) nonstormwater) rack
10	38	Metric 4. Habitat A	Alteration and	Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score of None or none apparent (A) Recovered (3) Recovering (2) Recent or no recovery (1 4b. Habitat development. Select of Excellent (7) Very good (6) Good (5)	4)		
		Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one of the control of the	9) Check all disturbanc	es observed	
su	38	Recovered (6) Recovering (3) Recent or no recovery (1	mowing grazing clearcutting selective cuttin woody debris r toxic pollutants	g sedimentation dredging emoval farming	quatic bed removal

last revised 1 February 2001 jjm

Site: A	D-S	with Canton Rate	r(s): KW	Date: 9 13/2017		
38 subtolal first page						
D	38	Metric 5. Special Wetlar	nds.			
max 10 pts.	sublotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Ope Relict Wet Praines (10) Known occurrence state/federal thr	restricted hydro nings) (10) eatened or enda	angered species (10)		
		Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10)				
4	42	Metric 6. Plant commun	ities, int	erspersion, microtopography.		
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.		Community Cover Scale		
		Score all present using 0 to 3 scale. Aquatic bed	1	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's		
		Emergent	,	vegetation and is of moderate quality, or comprises a		
		Shrub		significant part but is of low quality		
		Forest	2	Present and either comprises significant part of wetland's		
		Mudflats		vegetation and is of moderate quality or comprises a small		
		Open water	-	part and is of high quality		
		Other	3	Present and comprises significant part, or more, of wetland's		
		6b. horizontal (plan view) Interspersion.	:-	vegetation and is of high quality		
		Select only one. High (5)	Narrative D	escription of Vegetation Quality		
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or		
		Moderate (3)		disturbance tolerant native species		
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,		
		Low (1) .		although nonnative and/or disturbance tolerant native spp		
		None (0)		can also be present, and species diversity moderate to		
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare		
		to Table 1 ORAM long form for list. Add	hinh	threatened or endangered spp A predominance of native species, with nonnative spp		
		or deduct points for coverage Extensive >75% cover (-5)	high	and/or disturbance tolerant native spp absent or virtually		
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,		
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp		
		Nearly absent <5% cover (0)	3			
		Absent (1)		Open Water Class Quality		
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)		
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more		
		Standing dead >25cm (10in) dbh		riigii 4ila (5.56 acies) di more		
		Amphibian breeding pools	Microtopog	raphy Cover Scale		
			0	Absent		
			1	Present very small amounts or if more common		
				of marginal quality		
			2	Present in moderate amounts, but not of highest		
			*	quality or in small amounts of highest quality		
			3	Present in moderate or greater amounts		
112				and of highest quality		
76						

APPENDIX E ODNR and USFWS Correspondence



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

To: Allison Wheaton

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

Subject: GAI #C170352.24, AEP South Canton 765 kV Station Security Project, Stark Co.

Date: Friday, September 22, 2017 9:11:24 AM

Attachments: Capture of Dan.PNG



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-1968

Dear Ms. Wheaton,

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 longeared bats. While incidental take of northern longeared 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 iohn.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 Office Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW



September 7, 2017 Project C170352.24

Environmental Review Staff
Ohio Department of Natural Resources
Division of Wildlife - Ohio Natural Heritage Program
2045 Morse Road, Building G-3
Columbus, Ohio 43229-6693

American Electric Power
South Canton 765 kV Station Security Project
Request for Technical Assistance Regarding Threatened
and Endangered Species and Critical Habitat
Stark County, Ohio

Dear Staff:

GAI Consultants, Inc. (GAI), on behalf of American Electric Power (AEP), is requesting information regarding state- and federally-listed threatened and endangered species in the vicinity of the South Canton 765 kV Station Security Project (Project) in Stark County, Ohio. As part of this request, please provide information specific to any threatened and endangered bats. GAI is also requesting the locations of any known golden or bald eagle nests in the area.

The proposed Project involves the installation of a security fence surrounding the existing South Canton 765 kV Substation. The Project study area is approximately 185 acres.

The study area for the Project is shown on the attached map (Figure 1). The study area consists primarily of the existing substation surrounded by maintained transmission line right-of-way and mid-successional hardwood forest. Project shapefiles are included to aid in your review.

GAI and AEP thank you in advance for your assistance. Please contact me at 330.324.9148 or via email at a.wheaton@gaiconsultants.com if you have any guestions or require further information.

Sincerely,

GAI Consultants, Inc.

Allison R. Wheaton, WPIT

Senior Project Environmental Specialist

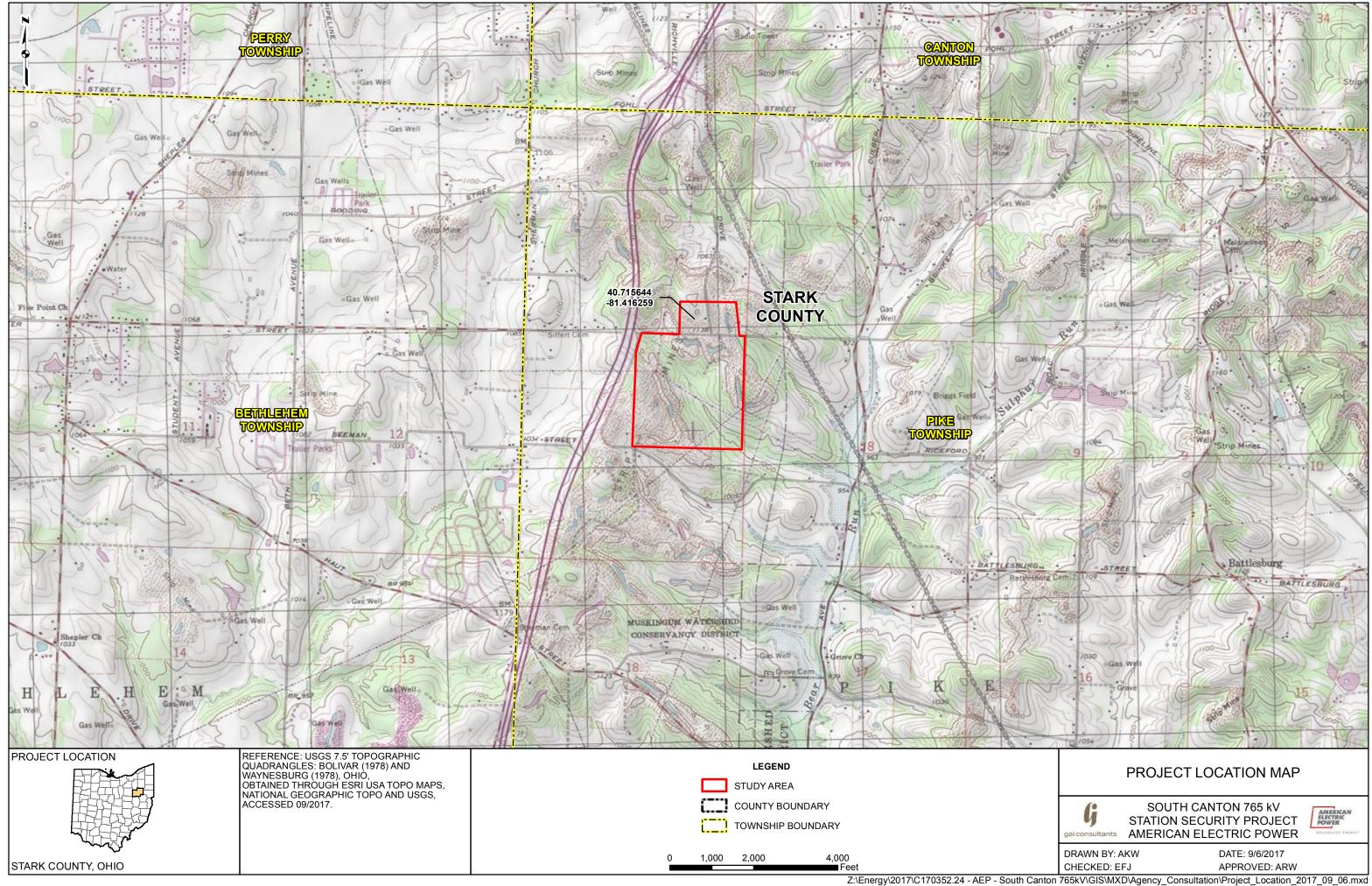
ARW/kea

Attachments: Attachment 1 (Project Location Map)

Project Shapefiles

ATTACHMENT 1

Project Location Map



Fax: (614) 267-4764

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

December 20, 2017

Allison Wheaton GAI Consultants 3720 Dressler Road NW Canton, Ohio 44718

Re: 17-704; AEP South Canton 765 kV Station Security Project

Project: The proposed Project involves the installation of a security fence surrounding the existing South Canton 765 kV Substation.

Location: The proposed project is in Pike Township, Stark County, Ohio.

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

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

Shore-growing peat moss (*Sphagnum riparium*), E Brush-tipped emerald (*Somatochlora walshii*), E Bolivar Reservoir – Muskingum Watershed Conservancy District

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

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

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; A = species recently added to state inventory, status not yet determined; X = presumed extirpated in Ohio; FE = federal endangered, FT = federal threatened, FSC = federal species of concern, FC = federal candidate species.

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

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

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

The project is within the range of the long-solid (*Fusconaia maculata maculata*), a state endangered mussel. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, this project is not likely to impact this species.

The project is within the range of the Iowa darter (*Etheostoma exile*), a state endangered fish. The DOW recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed, the project is not likely to impact these or other aquatic species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but also is known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat present at the project site and within the vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

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

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

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

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

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



September 7, 2017 Project C170352.24

Mr. Dan Everson United States Fish and Wildlife Service Ohio Ecological Services Field Office 4625 Morse Road, Suite 104 Columbus, Ohio 43230

American Electric Power
South Canton 765 kV Station Security Project
Request for Technical Assistance Regarding Threatened
and Endangered Species and Critical Habitat
Stark County, Ohio

Dear Mr. Everson:

GAI Consultants, Inc. (GAI), on behalf of American Electric Power (AEP), is requesting information regarding state- and federally-listed threatened and endangered species in the vicinity of the South Canton 765 kV Station Security Project (Project) in Stark County, Ohio. As part of this request, please provide information specific to any threatened and endangered bats. GAI is also requesting the locations of any known golden or bald eagle nests in the area.

The proposed Project involves the installation of a security fence surrounding the existing South Canton 765 kV Substation. The Project study area is approximately 185 acres.

The study area for the Project is shown on the attached map (Figure 1). The study area consists primarily of the existing substation surrounded maintained transmission line right-of-way and mid-successional hardwood forest. Project shapefiles are included to aid in your review.

GAI and AEP thank you in advance for your assistance. Please contact me at 330.324.9148 or via email at a.wheaton@gaiconsultants.com if you have any questions or require further information.

Sincerely,

GAI Consultants, Inc.

Allison R. Wheaton, WPIT

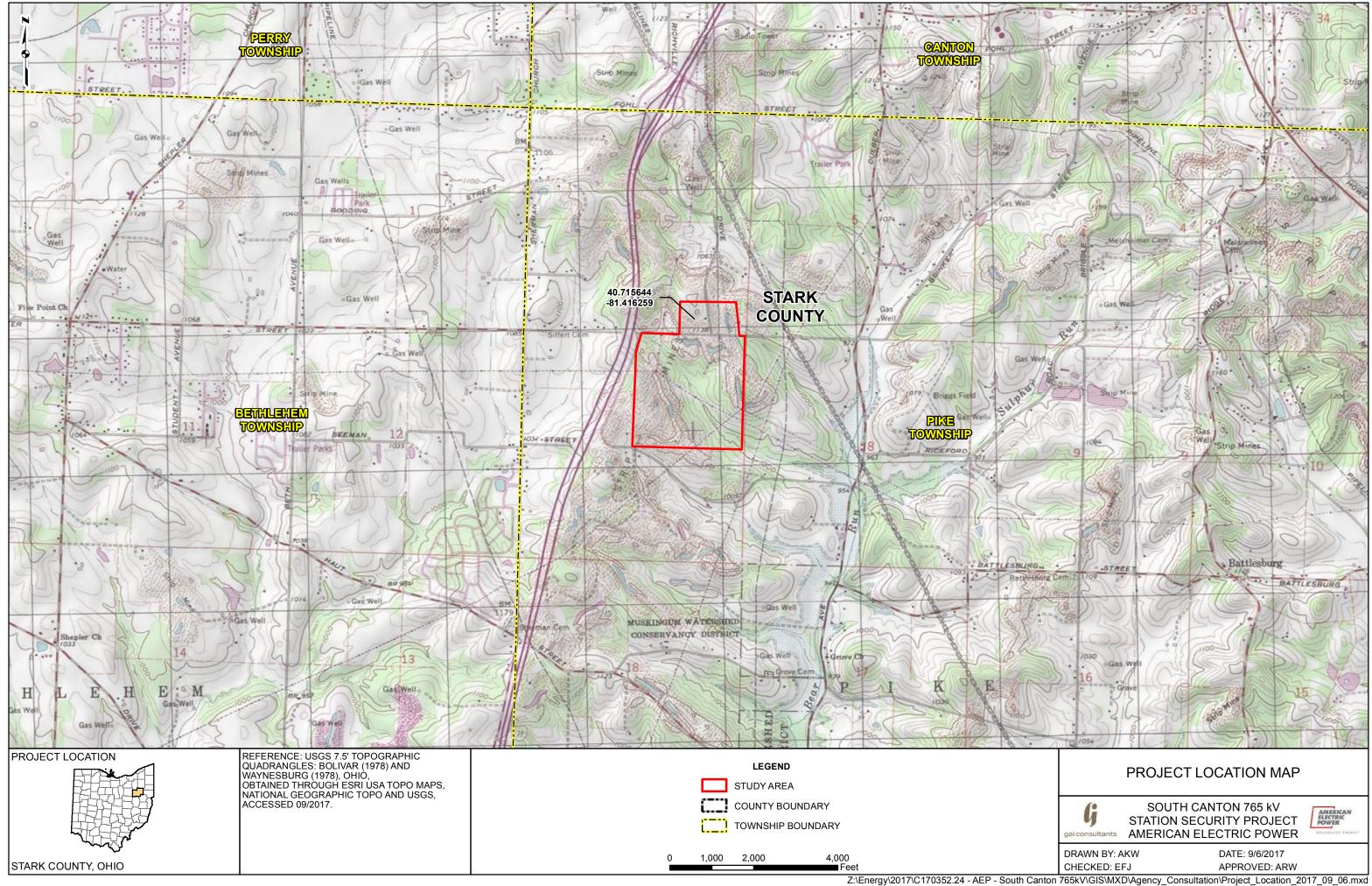
Senior Project Environmental Specialist

ARW/kea

Attachments: Attachment 1 (Project Location Map)

Project Shapefiles

ATTACHMENT 1 PROJECT LOCATION MAP



LETTER OF NOTIFICATION FOR THE SOUTH CANTON 765KV TRANSMISSION STATION EXPANSION PROJECT

Appendix C Agency Coordination Letters



In reply refer to 2017-STA-40506

December 19, 2017

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

RE: South Canton 765kV Station Safety Fence Project, Pike Township, Stark County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on November 28, 2017 regarding the proposed South Canton 765kV Station Safety Fence Project, Pike Township, Stark County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-4). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C.470 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Investigations for the Approximately 74.9 ha (185 ac) South Canton 765kV Station Safety Fence Project in Pike Township, Stark County, Ohio* by Weller & Associates, Inc. (2017).

A literature review, visual inspection, and shovel probe excavation was completed as part of the investigations. No previously identified archaeological sites are located within the project area. No archaeological sites were identified during this survey and a large majority of the project area was found to be disturbed from previous mining activity or sloped. Based on the information provided, we agree with your determination of no historic properties affected and no further archaeological work is necessary.

The following comments pertain to the History/Architecture Investigations for the Approximately 74.9 ha (185 ac) South Canton 765kV Station Safety Fence Project in Pike Township, Stark County, Ohio by Weller & Associates, Inc. (2017).

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

It is Weller's recommendation that neither of the two identified properties are eligible for inclusion in the National Register of Historic Places (NRHP) due to a lack of associative significance, a loss of integrity, or a lack of character defining features. Our office agrees with Weller's recommendations regarding eligibility.

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

RPR Serial No: 1071402, 1071403

Mr. Ryan J. Weller Page 2 December 19, 2017

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

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

Sincerely,

Krista Horrocks, Project Reviews Manager Resource Protection and Review

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

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

5/26/2020 1:18:19 PM

in

Case No(s). 20-1026-EL-BLN

Summary: Notice Letter of Notification Application for the South Canton 765kV Transmission Station Expansion electronically filed by Tanner Wolffram on behalf of Ohio Power Company