

Engineering & Design

## Wetland Delineation Report

### NCHP Phase 3B Project

Colliers Engineering & Design Project Number: 21004202A

### December 20, 2024

Prepared for:

NiSource Inc. 801 E. 86<sup>th</sup> Avenue Merrillville, IN 46410 Prepared by:

Colliers Engineering & Design, Inc. 1501 Reedsdale Street, Suite 302 Pittsburgh, PA 15233 Main: 412-618-5390 **Colliersengineering.com** 



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### **EXECUTIVE SUMMARY**

On behalf of NiSource Inc., Colliers Engineering & Design (CED) conducted field delineations for the North Columbus High Pressure (NCHP) Pipeline Project – Phase 3B within Franklin County, Ohio (hereinafter described as "Survey Corridor"). The Survey Corridor begins at latitudinal coordinate 40.021989 N and longitudinal coordinate -82.950258 W and ends at latitudinal coordinate 40.018147 N and longitudinal coordinate -82.882347 W. The Survey Corridor is located approximately 5 miles north of Columbus, Ohio. Access to the Survey Corridor can be achieved from Woodlawn Road, Granville Street, W Johnstown Road, James Road, and Agler Road.

The Project Study Area is comprised of a 100-foot wide survey corridor centered on the proposed pipeline alignment for approximately 3.75 miles. The Survey Corridor was investigated to identify potential jurisdictional Waters of the U.S. (WOTUS) and wetlands subject to Federal or State regulatory jurisdiction. The delineation methodologies developed by the USACE and the USEPA, as described in the *1987 Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* and the subsequently issued USACE regulatory guidance regarding the identification of jurisdictional stream channels through the recognition of field indicators of an ordinary high-water mark within drainage features (Environmental Laboratory, 1987; USACE 2012; USACE 2005) were utilized during our investigation. The location and size of jurisdictional areas delineated are shown on the attached Figure 5. Delineation Results (**Appendix A**).

Based on the field investigations, five (5) wetland features, one (1) palustrine unconsolidated bottom (pond) feature, and seven (7) stream features were delineated within the Survey Corridor by CED on March 2<sup>nd</sup> and 3<sup>rd</sup>, 2022, October 24, 2022, and December 17, 2024. A total of 0.67 acres of palustrine forested (PFO) wetland, 0.23 acres of palustrine emergent (PEM) wetland, 0.18 acres of pond (palustrine unconsolidated bottom – PUB), 806 linear feet of perennial (R3) stream, and 1,120 linear feet of intermittent (R4) stream were delineated. It is CED's professional opinion that Wetland Features "5" through "9" and Stream Features "4" through "10" are considered jurisdictional WOTUS since they are and/or drain into Big Walnut Creek and Alum Creek. These stream and wetland features can be considered jurisdictional WOTUS since they connect and/or are directly connected to Big Walnut Creek and Alum Creek, which eventually drain to the Scioto River. The location and size of jurisdictional areas delineated are shown on Figure 5. Delineation Results (**Appendix A**).



### 1.0 PROJECT INFORMATION

| Project Name                          | North Columbus High Pressure (NCHP) Pipeline Project – Phase 3B  |
|---------------------------------------|--|
| Project Location                      | Woodlawn Road, Granville Street, W Johnstown Road, James Road, and   |
|                                       | Agler Road   |
| Municipality                          | Columbus   |
| County                                | Franklin   |
| State                                 | Ohio   |
| Latitude/Longitude                    | 40.021989 N / -82.950258 W to 40.018147 N / -82.882347 W   |
| Survey Corridor Size                  | +/- 3.75 mi 100 feet wide survey corridor  |
| U.S.G.S. Quadrangle                   | Northeast Columbus OH  |
| Potential Jurisdictional              | See Aquatic Resource Area Summary Table on Page 5  |
| Waters of the U.S. (WOTUS)            |  |
| and wetlands                          |  |
| River Basin (HUC) & sub-<br>watershed | Upper Scioto Basin: 8 Digit HUC Code 05060001  |
| Nearest Stream                        | Big Walnut Creek, Alum Creek   |
| Navigable Water Nexus                 | Stream features delineated on the Survey Corridor would be considered<br>jurisdictional WOTUS and wetlands since these features drain towards<br>Big Walnut Creek and Alum Creek |
| Isolated Wetlands/Waters              | No   |
| Present (Yes/No)                      |  |



### 2.0 INTRODUCTION

On behalf of NiSource Inc., Colliers Engineering & Design (CED) conducted field delineations for the North Columbus High Pressure (NCHP) Pipeline Project – Phase 3B located in the greater North Columbus area within Franklin County, Ohio (hereinafter described as "Survey Corridor"). The Survey Corridor begins at latitudinal coordinate 40.021989 N and longitudinal coordinate -82.950258 W and ends at latitudinal coordinate 40.018147 N and longitudinal coordinate -82.882347 W. The Survey Corridor is located approximately 5 miles north of Columbus, Ohio. Access to the Survey Corridor can be achieved from Woodlawn Road, Granville Street, W Johnstown Road, James Road, and Agler Road. The Survey Corridor is bordered by residential homes, commercial properties, and forested areas. There are unnamed tributaries located within the Survey Corridor that eventually drain to Big Walnut Creek and Alum Creek.

The Survey Corridor was investigated to identify potential jurisdictional Waters of the U.S. (WOTUS) and wetlands subject to Federal or State regulatory jurisdiction. According to the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (USEPA) regulations described in Section 404 of the Clean Water Act (33 CFR Section 328.3 and 40 CFR Section 230.3) respectively, wetlands are "...areas that are inundated or saturated with surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."



### 3.0 PROPERTY DESCRIPTION

The Survey Corridor is located within the Upper Scioto River Basin (8 Digit HUC Code 05060001). Access to the Survey Corridor can be achieved from Woodlawn Road, Granville Street, W Johnstown Road, James Road, and Agler Road. The western section of the Survey Corridor drains south and east towards Alum Creek and the central and eastern sections of the Survey Corridor drain to Big Walnut Creek. The Survey Corridor does contain a floodway and a floodplain according to FEMA Floodplain Panel Maps 39049C0189K, 39049C0193K, and 39049C0194K (eff. 6/17/2008). The Survey Corridor contains approximately 35% forested communities and 65% residential properties and commercial properties. The forested areas are comprised of a mixture of oak, tulip poplar, red maple, pine, and sweetgum species that dominate the canopy layer. Big Walnut Creek is located in the eastern section and Alum Creek is located in the western section of the Survey Corridor, flowing north to south. Unnamed tributaries can be found throughout the Survey Corridor eventually discharging into Big Walnut Creek and Alum Creek.



### 4.0 BACKGROUND INFORMATION

Prior to on-site field investigations, several publicly available sources of information were reviewed to determine the likelihood of wetlands and surface waters occurring within Survey Corridor. These mapping resources generally include, but are not limited to, the United States Geological Survey (USGS) maps (Figure 1. Project Location Map, **Appendix A**), the U.S. Department of Agriculture - Natural Resource Conservation Service (NRCS) soils database (Figure 2. Soil Series Map, **Appendix A**), National Hydrography Dataset (NHD), and the U.S. Fish & Wildlife Service National Wetlands Inventory (NWI) database (Figure 3. National Wetlands Inventory Map, **Appendix A**).

#### **4.1** U.S. GEOLOGICAL SURVEY MAP

The Survey Corridor appears on the *Northeast Columbus OH* Quadrangle USGS Maps (Figure 1. Project Location Map, **Appendix A**) and is depicted as developed properties which contains approximately 35% forested areas habitat communities and 65% residential and commercial properties. The USGS also depicts unnamed tributaries located within the project limits. Residential and forested areas are located within the vicinity of the Survey Corridor to the north, south, east, and west. Elevations at the Survey Corridor range from approximately 770 to 830 feet above mean sea level (MSL) based on the USGS map.

#### 4.2 SOIL SURVEY

The NRCS Web Soil Survey depicts the following 19 soil series map units within the Survey Corridor and Table 1 provides a description of the properties and qualities of each soil:

| Map Unit Symbol | Map Unit Name   | Drainage Class             | Runoff Class | Depth to Water<br>Table  |
|-----------------|---|----------------------------|--------------|--------------------------|
| AdC2            | Alexandria silt<br>loam, 6 to 12<br>percent slopes,<br>eroded       | Well Drained               | High         | More than 80<br>inches   |
| BeB             | Bennington silt<br>loam, 2 to 6 percent<br>slopes                   | Somewhat Poorly<br>Drained | High         | About 6 to 12<br>inches  |
| BfA             | Bennington-Urban<br>land complex, 0 to<br>2 percent slopes          | Somewhat Poorly<br>Drained | High         | About 6 to 12<br>inches  |
| CbC             | Cardington-Urban<br>land complex, 6 to<br>12 percent slopes         | Moderately Well<br>Drained | High         | About 24 to 36<br>inches |
| Crd1B1          | Cardington silt<br>loam, 2 to 6 percent<br>slopes                   | Moderately Well<br>Drained | Medium       | About 12 to 24<br>inches |
| Ee              | Eel silt loam, 0 to 2<br>percent slopes,<br>occasionally<br>flooded | Moderately Well<br>Drained | Low          | About 15 to 24<br>inches |

#### Table 1. NCHP Phase 3B Project USDA NRCS Soil Series



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| Map Unit Symbol | Map Unit Name  | Drainage Class             | Runoff Class | Depth to Water<br>Table  |
|-----------------|--|----------------------------|--------------|--------------------------|
| EIB             | Eldean silt loam, 2<br>to 6 percent slopes   | Well Drained               | Low          | More than 80<br>inches   |
| EID2            | Eldean silt loam, 12<br>to 18 percent<br>slopes, eroded                            | Well Drained               | High         | More than 80<br>inches   |
| So              | Sloan silt loam,<br>Columbus Lowland,<br>0-2 percent slopes,<br>frequently flooded | Very Poorly<br>Drained     | Negligible   | About 0 to 6 inches      |
| Mh              | Medway silt loam,<br>occasionally<br>flooded                                       | Moderately Well<br>Drained | Low          | About 18 to 36<br>inches |
| Pm              | Pewamo silty clay<br>loam, low<br>carbonate till, 0 to 2<br>percent slopes         | Very Poorly<br>Drained     | Negligible   | About 0 to 12<br>inches  |
| Sh              | Shoals silt loam,<br>occasionally<br>flooded                                       | Somewhat Poorly<br>Drained | Very low     | About 12 to 36<br>inches |
| Pn              | Pewamo low<br>carbonate till-<br>Urban land<br>complex, 0 to 2<br>percent slopes   | Very Poorly<br>Drained     | Negligible   | About 0 to 12<br>inches  |
| EIC2            | Eldean silt loam, 6<br>to 12 percent<br>slopes, eroded                             | Well Drained               | High         | More than 80<br>Inches   |
| AdE2            | Alexandria silt<br>loam, 18 to 25<br>percent slopes,<br>eroded                     | Well Drained               | Very High    | More than 80<br>inches   |
| KeB             | Kendallville silt<br>loam, 2 to 6 percent<br>slopes                                | Well Drained               | Low          | More than 80<br>inches   |
| Cn              | Condit silt loam, 0<br>to 1 percent slopes   | Poorly Drained             | Negligible   | About 0 to 12<br>inches  |
| BeA             | Bennington silt<br>loam, 0 to 2 percent<br>slopes                                  | Somewhat Poorly<br>Drained | High         | About 6 to 12<br>inches  |
| Ut              | Udorthents-Urban<br>land complex,<br>gently rolling                                | -                          | -            | More than 80<br>inches   |

Of the 19 mapped soil units, seven (7) soil units: Alexandria silt loam (AdC2), Bennington silt loam (BeB), Bennington-Urban land complex (BfA), Cardington silt loam (Crd1B1), Eel silt loam (Ee), Sloan silt loam, Columbus Lowland (So), and Pewamo silty clay loam (Pm), are listed as being hydric.

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### 5.0 WETLAND & SURFACE WATER DELINEATION METHODOLOGY

The wetland delineation methodologies developed by the USACE and the USEPA, as described in the *1987 Corps* of *Engineers Wetlands Delineation Manual, Technical Report Y-87-1* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0) and subsequently issued USACE regulatory guidance regarding the identification of jurisdictional stream channels through the recognition of field indicators of an ordinary high-water mark within drainage features (Environmental Laboratory, 1987; USACE 2012; USACE 2005), were utilized during our investigation. These methodologies generally involve the review of three parameters (vegetation, soils, hydrology) when making a wetland or non-wetland determination.

The Survey Corridor was walked, community types were characterized, and wetland and surface water boundaries were flagged. Sample stations were established along the boundaries to examine vegetation, soils, and hydrology. Using this data, boundaries were established based on changes in vegetation, soils, hydrology, and surface water characteristics.



### 6.0 WETLAND AND SURFACE WATER DELINEATION RESULTS

#### 6.1 WETLAND AND SURFACE WATER SUMMARY

On-site field investigations of the Survey Corridor were conducted by CED on March 2<sup>nd</sup> & 3<sup>rd</sup>, 2022, October 24, 2022, and December 17, 2024. The on-site delineation did verify the presence of wetlands and surface waters within Survey Corridor. A summary of the aquatic resources identified within the Survey Corridor is provided below in Table 2: Aquatic Resource Summary. The location and size of the aquatic resources delineated are shown on Figure 5. Wetland Delineation Map (**Appendix A**).

| Aquatic<br>Resource                   | PFO Area<br>(AC) | PEM Area<br>(AC) | Aquatic<br>Resource | PUB Area<br>(AC) | Aquatic<br>Resource           | R3 Length<br>(LF) | R4 Length<br>(LF) |
|---------------------------------------|------------------|------------------|---------------------|------------------|-------------------------------|-------------------|-------------------|
| W-5                                   | 0.03             | -                | PUB3                | 0.18             | S-4                           | -                 | 204               |
| W-6                                   | -                | 0.23             | -                   | -                | S-5                           | -                 | 750               |
| W-7                                   | 0.29             | -                | -                   | -                | S-6                           | -                 | 166               |
| W-8                                   | 0.02             | -                | -                   | -                | S-7                           | 155               | -                 |
| W-9                                   | 0.33             | -                | -                   | -                | S-8                           | 39                | -                 |
| -                                     | -                | -                | -                   | -                | S-9                           | 337               | -                 |
| -                                     | -                | -                | -                   | -                | S-10                          | 275               | -                 |
| Total<br>Wetlands<br>by Class<br>(AC) | 0.67             | 0.23             | Total Pond          | 0.18             | Total Stream by<br>Class (LF) | 806               | 1,120             |
| Total<br>Wetlands<br>(AC)             | 0.               | 9                | (AC)                |                  | Total Stream<br>(LF)          | 1,92              | 26                |

#### Table 2: Aquatic Resource Area Summary Table

Note 1: Cowardin Classification; PFO = palustrine forested wetland; PEM = palustrine emergent wetland; PUB = palustrine unconsolidated bottom (pond), R3 = perennial stream, R4 = intermittent stream

#### 6.2 VEGETATION

Representative plant species within the wetland areas include the following: green ash (*Fraxinus pennsylvanica*), red maple (*Acer rubrum*), sycamore (*Platanus occidentalis*), eastern cottonwood (*Populus deltoides*), amur honeysuckle (*Lonicera mackaii*), multiflora rose (*Rosa multiflora*), reed canary grass (*Phalaris arundinacea*), and broadleaf cattail (*Typha latifolia*).

Representative plant species within the upland areas include the following: eastern cottonwood, red maple, black cherry (*Prunus serotina*), Indian olive (*Elaeagnus angustifolia*), Tatarian honeysuckle (*Lonicera tatarica*), wild privet (*Ligustrum vulgare*), Callery pear (*Pyrus calleryana*) and tall fescue (*Schedonorus arundinaceus*).

#### 6.3 SOILS

Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil (USDA 2003). The soils in the wetland areas were variable, but for the most part, exhibited low chroma matrices with redoximorphic



features. Soils within the wetland areas on-site exhibit low chroma matrix colors and concentrations that are characteristic of reducing anaerobic conditions associated within the formation of hydric soils. Wetland soils were typically dark grayish brown (10YR 4/2), weak red (2.5Y 4/2 and 2.5Y 5/2), and dark gray (10YR 4/1) within the upper 16 inches. Redox concentrations greater than 3% were observed between 0 and 16 inches below soil surface and are typically dark yellowish brown (10YR 4/6). Soils within jurisdictional areas meet the F3 Depleted Matrix hydric soil indicator. Textures within the jurisdictional areas include clay, silt, and silty clay loam. The upland soils within each area varied from very dark grayish brown (10YR 3/2), yellowish brown (10YR 5/4 and 10YR 5/6), and dark brown (10YR 3/3) and (10YR 5/6) within the upper 16 inches. Soil textures include silt and clay.

#### 6.4 HYDROLOGY

On-site field investigations of the Survey Corridor were conducted by CED on March 2<sup>nd</sup> & 3<sup>rd</sup>, 2022, October 24, 2022, and December 17, 2024. The USACE Antecedent Precipitation Tool (APT) was utilized for the Survey Corridor and is provided **Appendix B**. Based the USACE APT tool, the on-site field investigations were conducted in "Wetter than Normal" precipitation conditions in March 2022, "Normal Conditions" in October 2022, and "Normal Conditions" in December 2024 (with a 30-day rolling total).

The delineated wetlands exhibited primary and secondary indicators of wetland hydrology. Positive indicators of wetland hydrology on the property included the following: surface water (A1), high water table (A2), saturation (A3), water marks (B1), and water-stained leaves (B9). Secondary indicators include drainage patterns (B10), and the FAC-neutral test (D5). Indicators of wetland hydrology are largely absent in upland areas.



### 7.0 WETLAND DELINEATION CONCLUSION

Five (5) wetland features, one (1) palustrine unconsolidated bottom (pond) feature, and seven (7) stream features were delineated within the Survey Corridor by CED on March 2<sup>nd</sup> and 3<sup>rd</sup>, 2022, October 24, 2022, and December 17, 2024. A total of 0.67 acres of palustrine forested (PFO) wetland, 0.23 acres of palustrine emergent (PEM) wetland, 0.18 acres of pond (palustrine unconsolidated bottom – PUB), 806 linear feet of perennial (R3) stream, and 1,120 linear feet of intermittent (R4) stream were delineated. Field investigations were conducted in accordance with the manuals, methodologies, and regulatory guidance procedures as stated in Section 5.0 Wetland and Surface Water Delineation Methodology.

It is CED's professional opinion that Wetland Features "5" through "9" and Stream Features "4" through "10" are considered jurisdictional WOTUS since they are and/or drain into Big Walnut Creek and Alum Creek. These stream and wetland features can be considered jurisdictional WOTUS since they connect to Big Walnut Creek and Alum Creek, which eventually drain to the Scioto River. The location and size of jurisdictional areas delineated are shown on Figure 5. Delineation Results (**Appendix A**).



### 8.0 REFERENCES

- Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.
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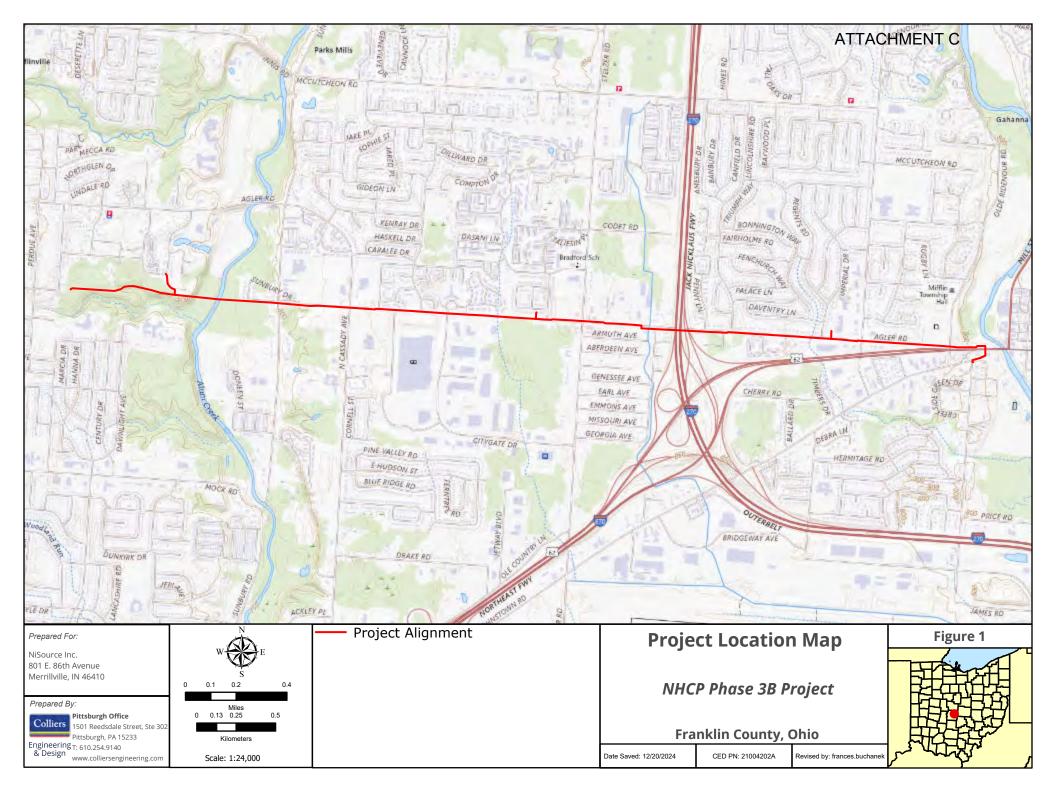
United States Department of Agriculture. Natural Resources Conservation Service http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

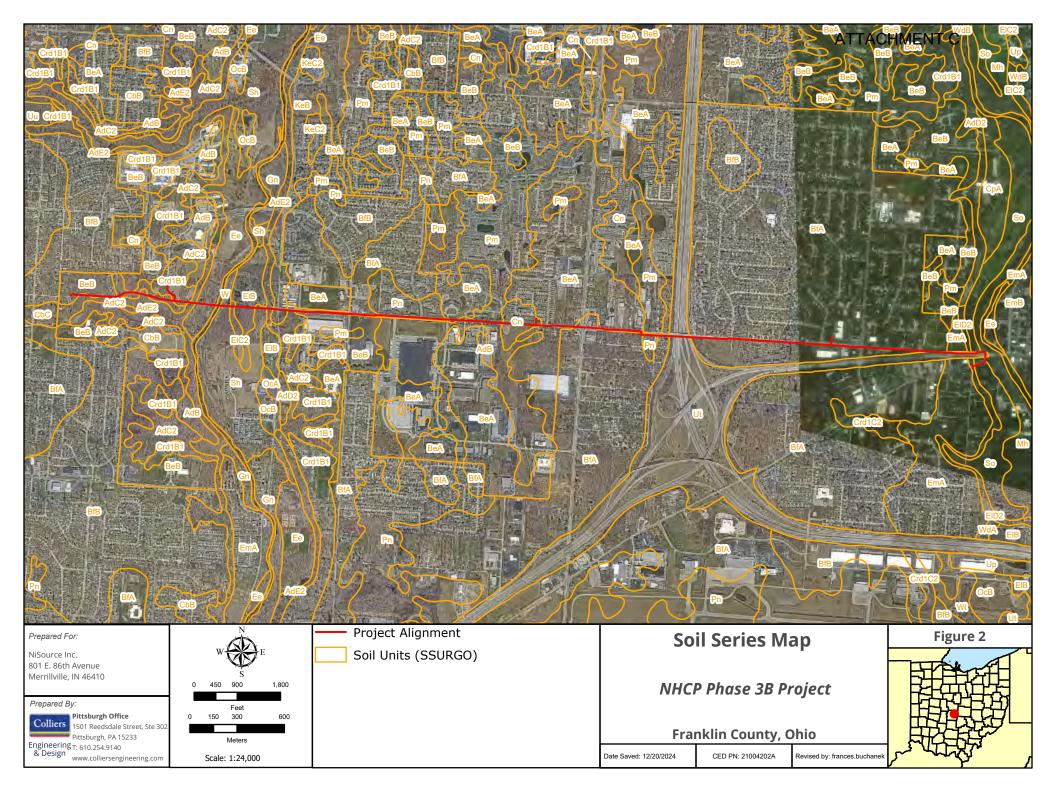
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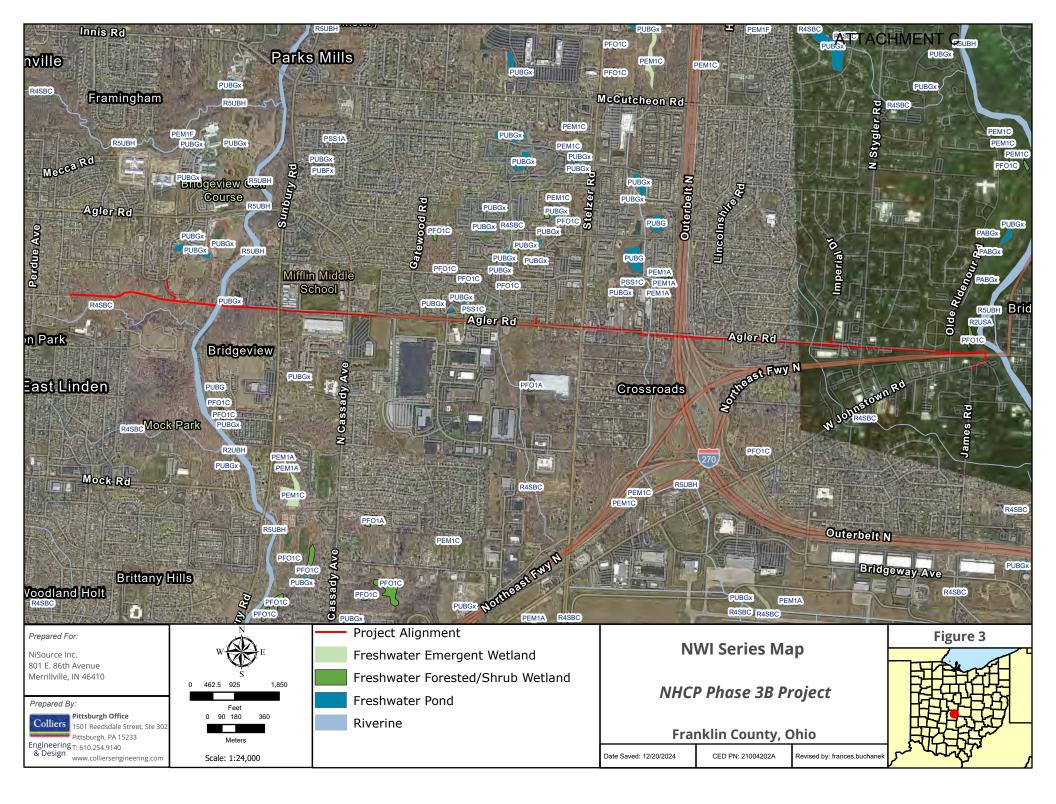


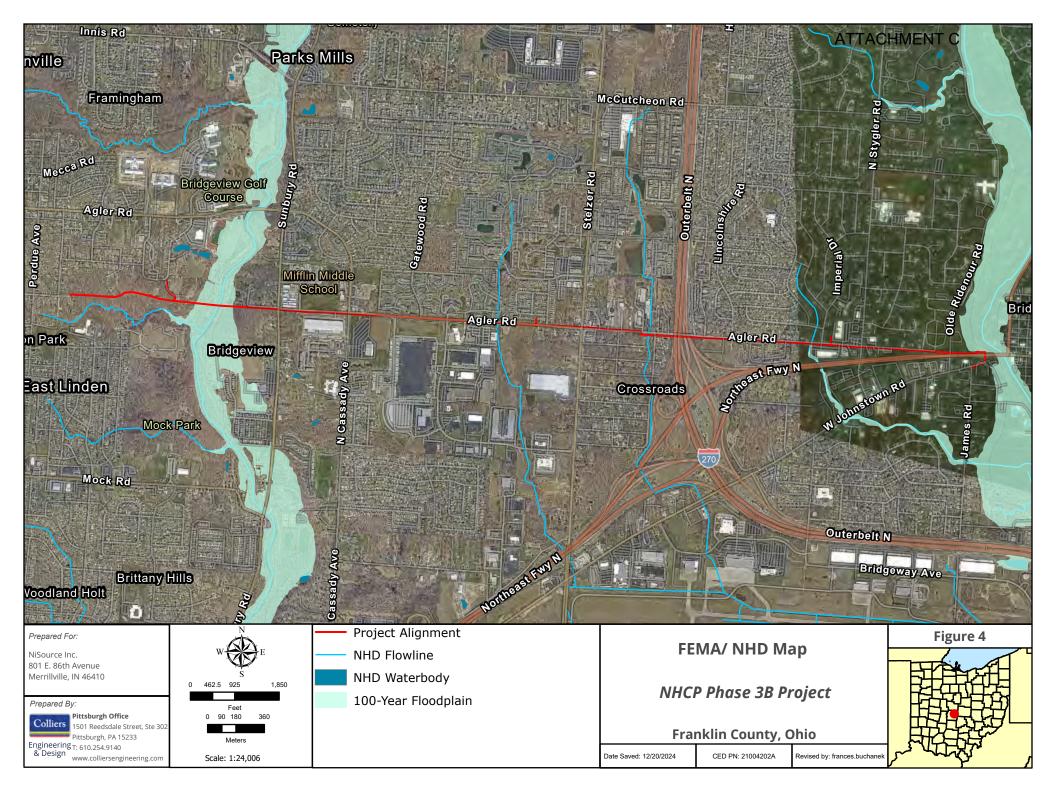
# Appendix Appendix A | Figures

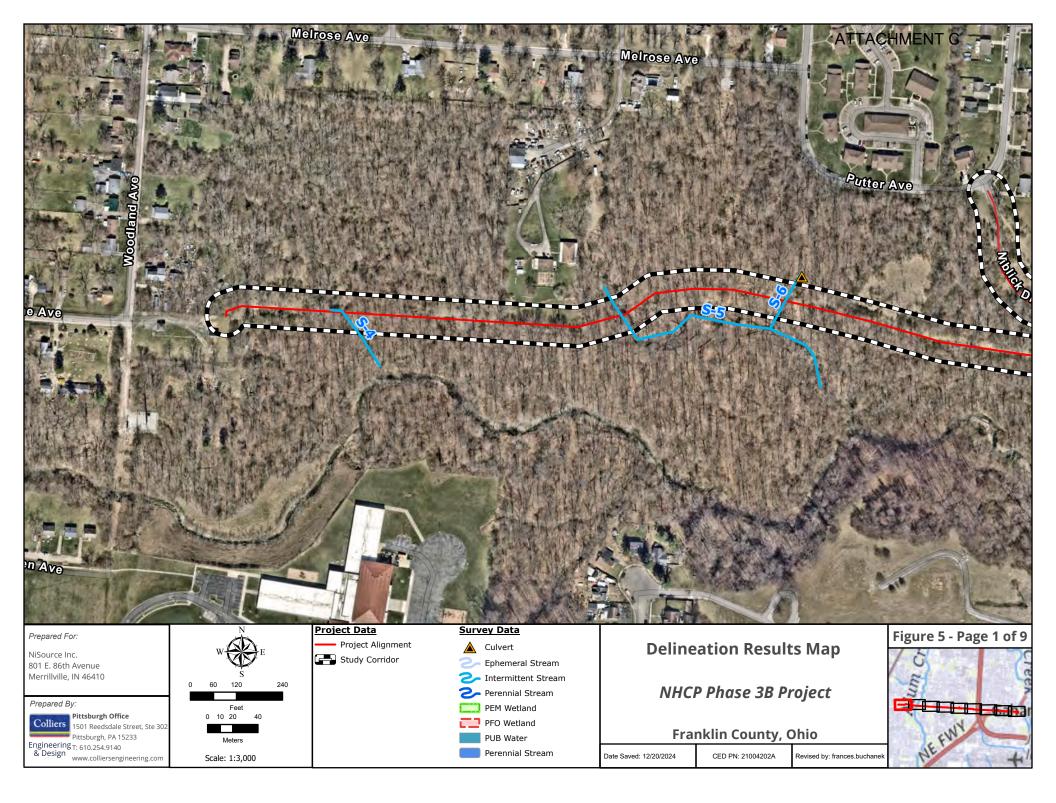
Wetland Delineation Report | December 20, 2024

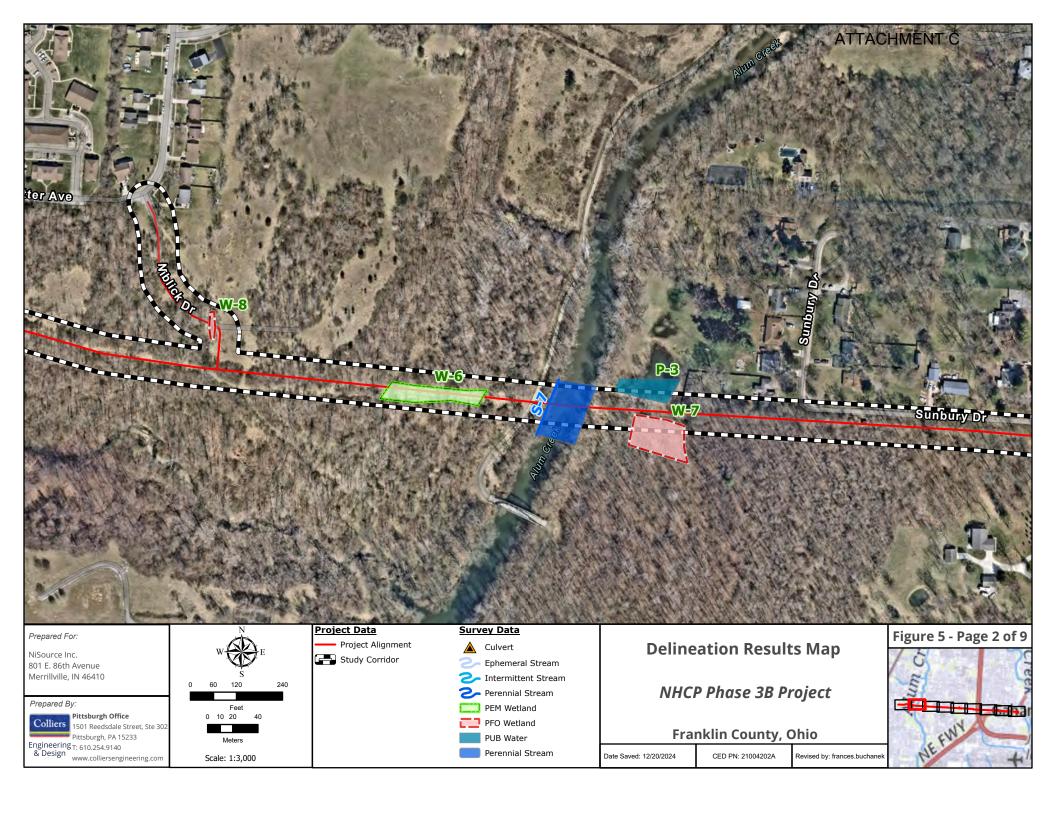




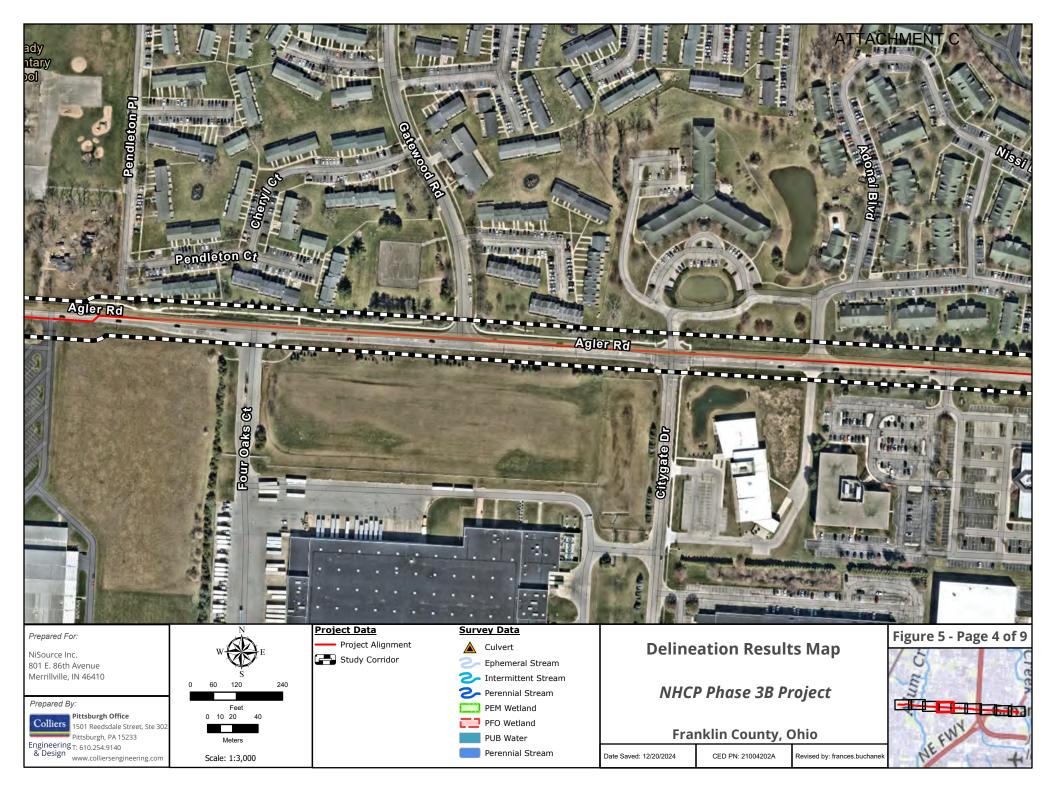




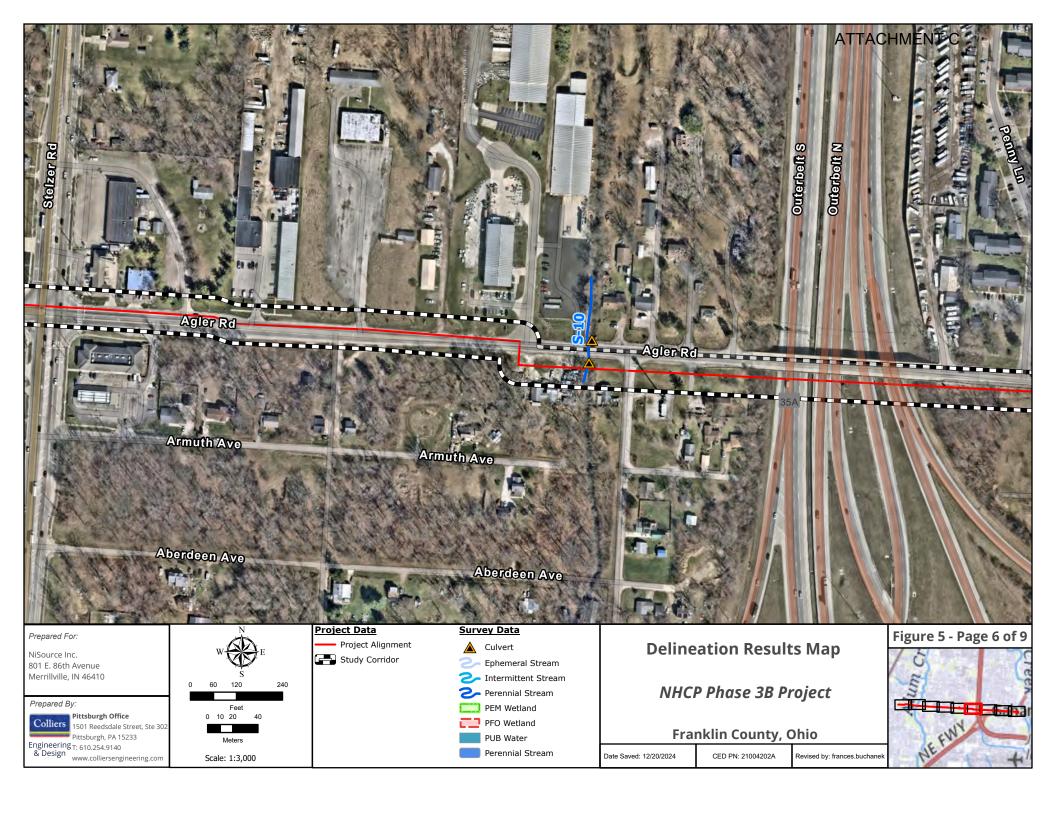


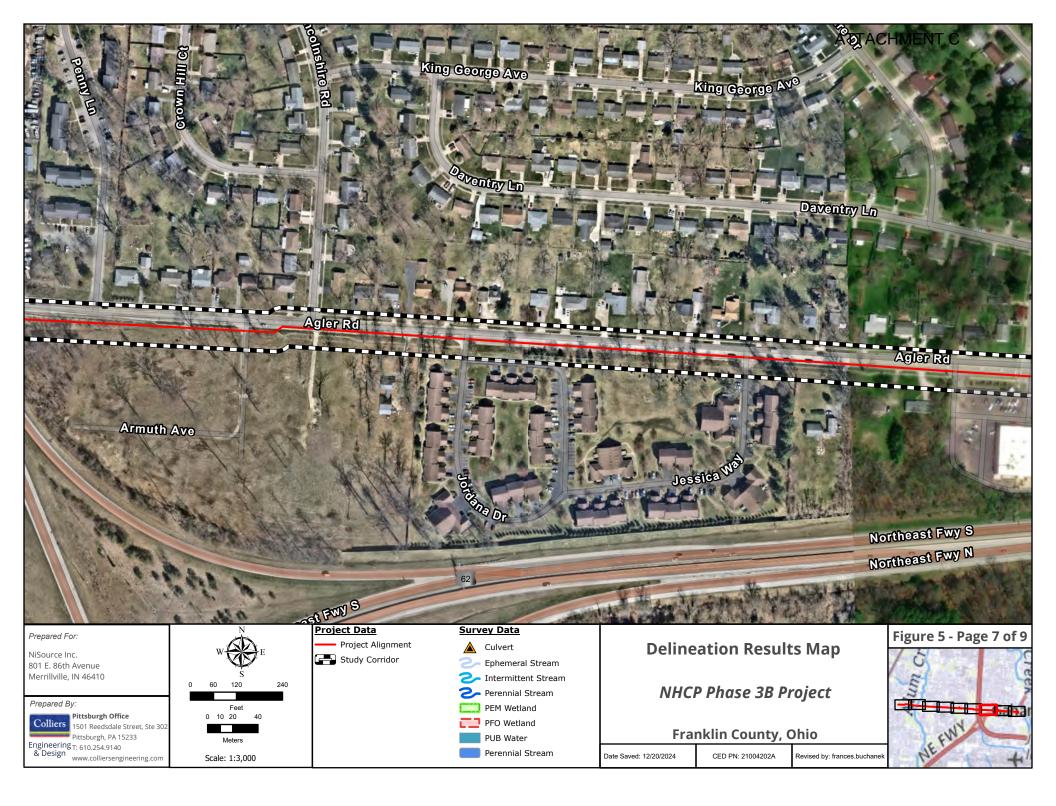


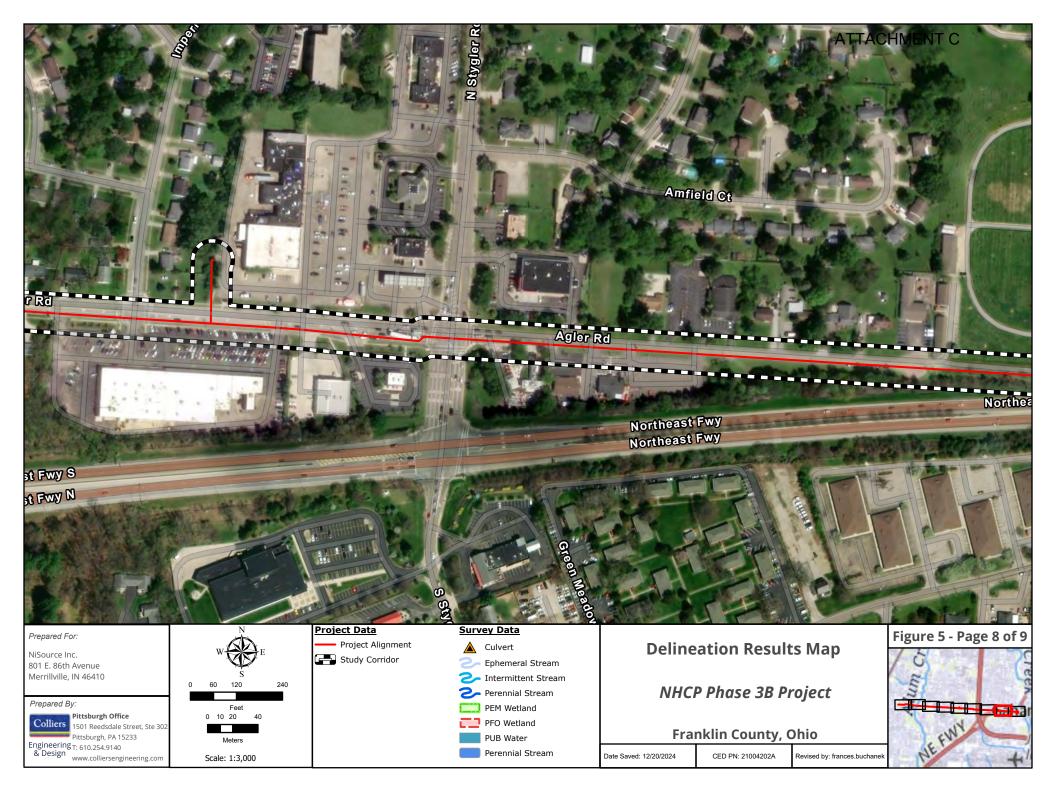


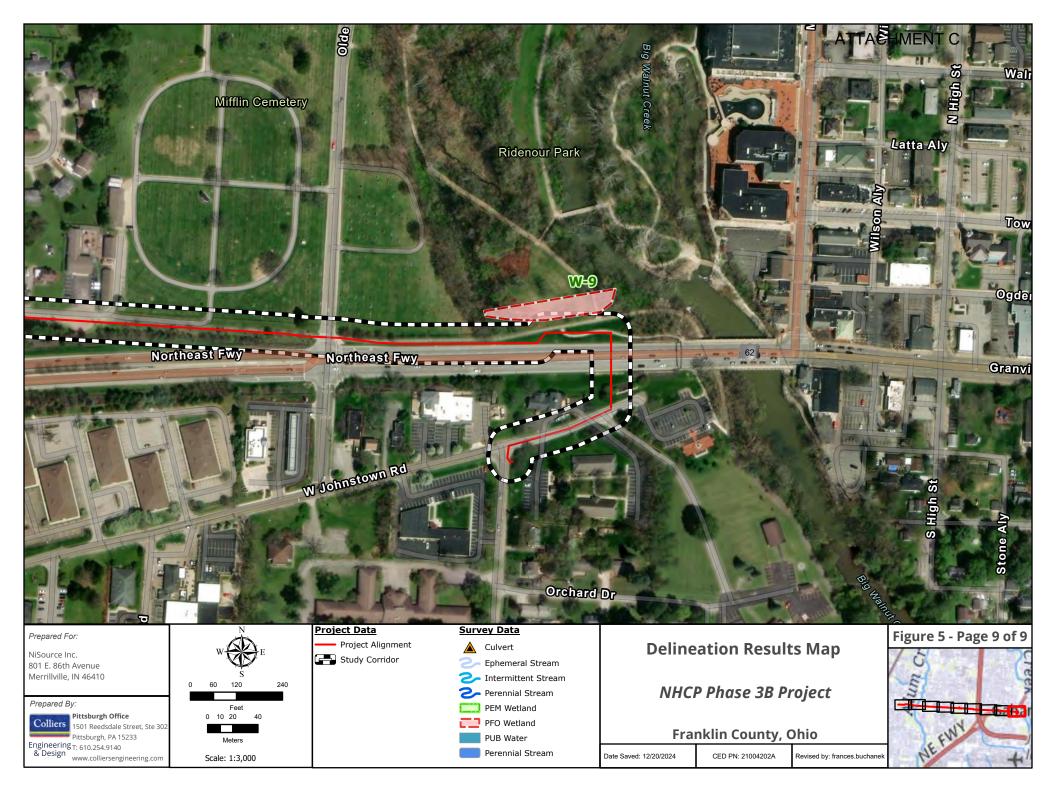














## Appendix B | Data Forms

Wetland Delineation Report | December 20, 2024

| roject/Site: NCH City/County:   | Columbus Frankli Sampling Date: 3222  |
|---|---|
| pplicant/Owner: Nisouxie  | State: 04 Sampling Point: WOOSC   |
| vestigator(s): REK Section, Tow   | nship, Range: TIN RIFW  |
|   | ocal relief (concave, convex, none): LON ( 9 L  |
| lope (%): Lat: Long:  | Datum:  |
|   | NWI classification: Nore  |
| oil Map Unit Name: $ACCZ$<br>re climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u>  |   |
| re Climatic / hydrologic conditions on the site typical for this time of year? Thes $\underline{\zeta}$ reveatation $N$ , Soil $N$ , or Hydrology $N$ significantly disturbed?  | Are "Normal Circumstances" present? Yes No  |
| re Vegetation, Soil, or Hydrology significantly disturbed ?<br>re Vegetation, Soil, or Hydrology naturally problematic?   | (If needed, explain any answers in Remarks.)  |
|   |   |
| UMMARY OF FINDINGS – Attach site map showing sampling   | point locations, transects, important features, etc.  |
| Hydrophytic Vegetation Present? Yes Ves   |   |
| lydric Soil Present? Yes Yes No Is the  | Sampled Area  |
|   | a Wetland? Yes <u>X</u> No  |
| Remarks:  |   |
| Pto rel to WOOD   |   |
|   |   |
| GETATION – Use scientific names of plants.  | ndicator Dominance Test worksheet:  |
| ree Stratum (Plot size: 30 x 30 ) Absolute Dominant I<br>% Cover Species?   | Status Number of Dominant Species   |
| Plutainus occidentalis 45 Y   | ALW That Are OBL, FACW, or FAC: (A)   |
| populus deltoms ID N  | Total Number of Dominant  |
|   | Species Across All Strata: (B)  |
|   | Percent of Dominant Species   |
|   | That Are OBL, FACW, or FAC: (A/B)   |
| Gy G -55 = Total Cove   | Prevalence Index worksheet:   |
| Platanos Occurrents by 12   | ACM Total % Cover of: Multiply by:  |
| Innicera mackai + 15 -  | NL OBL species x1=  |
| under not fait of 12  | FACW species x 2 =  |
|   | FAC species x 3 =   |
|   | FACU species x 4 =  |
| 20 = Total Cove   | UPL species x 5 =   |
| brb Stratum (Plot size: 5×5)  | Column Totals: (A) (B)  |
| Evonymus fortoneit 3 -  | Prevalence Index = B/A =  |
|   | Hydrophytic Vegetation Indicators:  |
|   | 1 - Rapid Test for Hydrophytic Vegetation   |
|   | V. 2 - Dominance Test is >50%   |
|   | 3 - Prevalence Index is ≤3.01   |
|   | 4 - Morphological Adaptations' (Provide supporting  |
|   | data in Remarks or on a separate sheet)   |
|   | Problematic Hydrophytic Vegetation' (Explain)   |
|   |   |
| and the second se | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic. |
|   |   |
| pody Vine Stratum (Plot size: 2420)   |   |
| Vitis (Plot size: 0150)<br>Sitis (pavice 5 4  | ACW Hydrophytic   |
| oody Vine Stratum (Plot size: 2150)   | Vegetation<br>Present? Yes X No   |

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| epth<br>nches)  | Matrix  |  |   | x Feature  |   | or confirm                         | n the absence of indicators.)  |
|---|---|--|---|--|---|------------------------------------|--|
|   | Color (moist)   | %  | Color (moist)   | x Feature<br>%   | S<br>Type <sup>1</sup>  | Loc <sup>2</sup>                   | Texture Remarks  |
| 1-10  | 1041-412  | 92   | 104/124/4   | 8  | L   | m                                  | Silty Llay Jaym  |
| _   |   |  |   | -  |   | _                                  |  |
|   |   |  |   |  |   | _                                  |  |
|   |   | _  |   | _  | _   |                                    |  |
| ype: C=Co   |   | etion, RM  | Reduced Matrix, MS  | S=Masked   | d Sand G  | rains.                             | <sup>2</sup> Location: PL=Pore Lining, M=Matrix.<br>Indicators for Problematic Hydric Soils <sup>3</sup> :   |
| Histosol (  |   |  | Sandy   | Sleyed Ma  | atrix (SA)  |                                    | Coast Prairie Redox (A16)  |
|   | ipedon (A2)   |  |   | Redox (SS  |   |                                    | Coast Frame Redox (A10)<br>Dark Surface (S7)   |
| Black His   | tic (A3)  |  |   | Matrix (S  |   |                                    | Iron-Manganese Masses (F12)  |
| Hydroger  | Sulfide (A4)  |  |   | Mucky Mi   |   | )                                  | Very Shallow Dark Surface (TF12)   |
| 2 cm Mud  |   | 1.   |   | Gleyed M<br>d Matrix (   | atrix (F2)<br>F3)   |                                    | Other (Explain in Remarks)   |
|   | Below Dark Surface<br>k Surface (A12)   | (A11)  | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | Dark Surfa   |   |                                    | 3. Junto a Charles had a sectorion and   |
|   | ucky Mineral (S1)   |  |   | d Dark Su<br>Depressio   |   | 0                                  | <sup>3</sup> Indicators of hydrophytic vegetation and<br>wetland hydrology must be present,  |
|   | ky Peat or Peat (S3   | 5)   |   | Depressio  | 115 (FO)  |                                    | unless disturbed or problematic.   |
|   | ayer (if observed):   |  |   |  |   |                                    |  |
| Type:   |   |  |   |  |   |                                    | Suffrage and the second second   |
| Depth (inc  | hes):   |  | 22 - T  |  |   |                                    | Hydric Soil Present? Yes No  |
| emarks:   |   |  |   |  |   |                                    |  |
|   |   |  |   |  |   |                                    |  |
| DROLO   | GY  | _  |   | _  |   |                                    |  |
| DROLO(  | GY<br>Irology Indicators:   |  |   |  |   |                                    |  |
| etland Hyd  | rology Indicators:  | ne is requ   | ired: check all that ar   | oply)  |   |                                    | Secondary Indicators (minimum of two required  |
| etland Hyd  | rology Indicators:  | ne is requ   | ired: check all that an<br>X Water-Sta  |  | ves (B9)  |                                    | Secondary Indicators (minimum of two required  |
| etland Hyd<br>rimary Indic<br>Surface V   | rology Indicators:<br>ators (minimum of o   | ne is requ   | X Water-Sta   | ined Leav<br>auna (B13   | 3)  |                                    |  |
| etland Hyd<br>rimary Indic<br>Surface V<br>High Wat<br>Saturation   | Irology Indicators:<br>ators (minimum of o<br>Water (A1)<br>er Table (A2)<br>n (A3)   | ne is requ   | X Water-Sta<br>Aquatic Fa<br>True Aqua  | ined Leav<br>auna (B13<br>atic Plants  | 3)<br>5 (B14)   |                                    | Surface Soil Cracks (B6)<br>Drainage Patterns (B10)<br>Dry-Season Water Table (C2)   |
| letland Hyd<br>rimary Indica<br>Surface V<br>High Wat   | Irology Indicators:<br>ators (minimum of o<br>Water (A1)<br>er Table (A2)<br>n (A3)   | ne is requ   | X Water-Sta   | ined Leav<br>auna (B13<br>atic Plants  | 3)<br>5 (B14)   |                                    | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> </ul>  |
| Vetland Hyd<br>rimary Indica<br>Surface V<br>High Wat<br>Saturation<br>Water Ma   | Irology Indicators:<br>ators (minimum of o<br>Water (A1)<br>er Table (A2)<br>n (A3)   | ne is requ   | X Water-Sta<br>Aquatic Fa<br>True Aqua<br>Hydrogen<br>Oxidized F  | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide C<br>Rhizosphe  | 3)<br>5 (B14)<br>9dor (C1)<br>eres on L   | iving Roots                        | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> </ul>  |
| etland Hyd<br>imary Indic<br>Surface V<br>High Wat<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo  | rology Indicators:<br>ators (minimum of o<br>Water (A1)<br>er Table (A2)<br>n (A3)<br>nrks (B1)<br>Deposits (B2)<br>osits (B3)  | ne is requ   | X Water-Sta<br>Aquatic Fa<br>True Aqua<br>Hydrogen<br>Oxidized F<br>Presence  | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide C<br>Rhizospho<br>of Reduc  | 3)<br>5 (B14)<br>0dor (C1)<br>eres on L<br>ed Iron ((   | iving Roots<br>C4)                 | Surface Soil Cracks (B6)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Crayfish Burrows (C8)     Saturation Visible on Aerial Imagery (C9)     Stunted or Stressed Plants (D1)   |
| etland Hyd<br>imary Indic<br>Surface V<br>High Wat<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo  | rology Indicators:<br>ators (minimum of o<br>Nater (A1)<br>er Table (A2)<br>n (A3)<br>nrks (B1)<br>Deposits (B2)  | ne is requ   | X Water-Sta<br>Aquatic Fa<br>True Aqua<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Inc  | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide C<br>Rhizospho<br>of Reduct<br>on Reduct  | 3)<br>5 (B14)<br>Odor (C1)<br>ares on L<br>ed Iron (C<br>tion in Till   | iving Roots                        | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> </ul>                                |
| etland Hyd<br>rimary Indic<br>Surface V<br>High Wat<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depo   | rology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>n (A3)<br>rrks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sists (B5)  |  | X Water-Sta<br>Aquatic Fa<br>True Aqua<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Inc<br>Thin Much   | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide C<br>Rhizospho<br>of Reduc<br>on Reduct<br>Surface  | 3)<br>5 (B14)<br>Odor (C1)<br>eres on L<br>ed Iron (C<br>tion in Till<br>(C7)   | iving Roots<br>C4)                 | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>s (C3)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> </ul>  |
| etland Hyd<br>imary Indic<br>Surface V<br>High Wat<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depo  | rology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>n (A3)<br>urks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>usits (B5)<br>n Visible on Aerial In  | magery (B  | X Water-Sta<br>Aquatic Fa<br>True Aquatic Fa<br>True Aquatic Fa<br>Hydrogen<br>Oxidized Fa<br>Presence<br>Recent Inc<br>Thin Muck<br>Thin Muck<br>Thin Gauge or                                     | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide C<br>Rhizosphe<br>of Reduc<br>on Reduct<br>Surface<br>Well Data   | 3)<br>5 (B14)<br>Odor (C1)<br>eres on L<br>ed Iron (C<br>tion in Till<br>(C7)<br>a (D9)   | iving Roots<br>C4)                 | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> </ul>                                |
| etland Hyd<br>imary Indic<br>Surface V<br>High Wat<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depo  | rology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>n (A3)<br>rrks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sists (B5)  | magery (B  | X Water-Sta<br>Aquatic Fa<br>True Aquatic Fa<br>True Aquatic Fa<br>Hydrogen<br>Oxidized Fa<br>Presence<br>Recent Inc<br>Thin Muck<br>Thin Muck<br>Thin Gauge or                                     | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide C<br>Rhizosphe<br>of Reduc<br>on Reduct<br>Surface<br>Well Data   | 3)<br>5 (B14)<br>Odor (C1)<br>eres on L<br>ed Iron (C<br>tion in Till<br>(C7)<br>a (D9)   | iving Roots<br>C4)                 | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> </ul>                                |
| etland Hyd<br>imary Indica<br>Surface V<br>High Wat<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depo<br>Inundation<br>Sparsely V   | rology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>n (A3)<br>nrks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>usits (B5)<br>n Visible on Aerial In<br>Vegetated Concave<br>ations:  | nagery (E<br>Surface   | X Water-Sta<br>Aquatic Fa<br>True Aquat<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Inc<br>Thin Much<br>(B8) Other (Ex)   | ined Leav<br>auna (B13<br>stic Plants<br>Sulfide C<br>Rhizospho<br>of Reduc<br>on Reduct<br>s Surface<br>Well Data<br>plain in R   | 3)<br>5 (B14)<br>Odor (C1)<br>eres on L<br>ed Iron (C<br>tion in Till<br>(C7)<br>a (D9)   | iving Roots<br>C4)                 | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> </ul>                                |
| etland Hyd<br>imary Indic<br>Surface V<br>High Wat<br>Saturation<br>Water Ma<br>Drift Depo<br>Algal Mat<br>Iron Depo<br>Inundation<br>Sparsely V  | rology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>n (A3)<br>urks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>usits (B5)<br>n Visible on Aerial In<br>Vegetated Concave<br>ations:<br>Present? Ye   | nagery (E<br>Surface   | X Water-Sta<br>Aquatic Fa<br>True Aqua<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Inc<br>Thin Muck<br>(7) Gauge or<br>(88) Other (Ex)<br>No Depth (in  | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide C<br>Rhizospho<br>of Reduc<br>on Reduck<br>Surface<br>Well Data<br>plain in R   | 3)<br>5 (B14)<br>Odor (C1)<br>eres on L<br>ed Iron (C<br>tion in Till<br>(C7)<br>a (D9)   | iving Roots<br>C4)                 | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> </ul>                                |
| Vetland Hyd<br>rimary Indica<br>Surface V<br>High Wate<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depo<br>Inundation<br>Sparsely V<br>eld Observa<br>rface Water  | rology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>in (A3)<br>trks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>isits (B5)<br>or Visible on Aerial In<br>Vegetated Concave<br>ations:<br>Present? Ye   | magery (E<br>Surface<br>as <u>X</u>                            | X Water-Sta<br>Aquatic Fa<br>True Aquatic Fa<br>True Aquatic Fa<br>Presence<br>Recent Ind<br>Thin Muck<br>Thin Muck<br>Thin Muck<br>(7) Gauge or<br>(88) Other (Ex)<br>No Depth (in<br>No Depth (in | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide C<br>Rhizospho<br>of Reduct<br>of R | 3)<br>5 (B14)<br>5 (B14)<br>5 (B14)<br>6 (C1)<br>eres on L<br>ed Iron (C<br>tion in Till<br>(C7)<br>a (D9)<br>emarks)<br>8 ' '                  | iving Roots<br>C4)<br>led Soils (C | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>FAC-Neutral Test (D5)</li> </ul> |
| Vetland Hyd<br>rimary Indica<br>Surface V<br>High Wate<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depo<br>Inundation<br>Sparsely<br>Vald Observa<br>rface Water<br>Aler Table P<br>turation Pre                                 | rology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sits (B5)<br>n Visible on Aerial In<br>Vegetated Concave<br>ations:<br>Present? Yes<br>sent? Yes   | nagery (E<br>Surface   | X Water-Sta<br>Aquatic Fa<br>True Aqua<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Inc<br>Thin Muck<br>(7) Gauge or<br>(88) Other (Ex)<br>No Depth (in  | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide C<br>Rhizospho<br>of Reduct<br>of R | 3)<br>5 (B14)<br>Odor (C1)<br>eres on L<br>ed Iron (C<br>tion in Till<br>(C7)<br>a (D9)   | iving Roots<br>C4)<br>led Soils (C | <ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> </ul>                                |
| etland Hyd<br>rimary Indic<br>Surface V<br>High Wat<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depo<br>Inundation<br>Sparsely V<br>eld Observa<br>rface Water<br>ater Table P<br>turation Pre<br>cludes capil                   | rology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>n (A3)<br>rrks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>isits (B5)<br>n Visible on Aerial In<br>Vegetated Concave<br>ations:<br>Present? Ye<br>sent? Ye<br>lary fringe)   | magery (E<br>Surface<br>as $\chi$<br>as $\chi$                 | X Water-Sta<br>Aquatic Fa<br>True Aquatic Fa<br>True Aquatic Fa<br>Presence<br>Recent Ind<br>Thin Muck<br>Thin Muck<br>Thin Muck<br>(7) Gauge or<br>(88) Other (Ex)<br>No Depth (in<br>No Depth (in | ined Leav<br>auna (B1:<br>atic Plants<br>Sulfide C<br>Rhizospho<br>of Reduc<br>on Reduck<br>(Surface<br>Well Data<br>plain in R<br>aches):<br>aches):  | 3)<br>5 (B14)<br>5 (B14)<br>5 (B14)<br>6 (C1)<br>eres on L<br>eed Iron (C<br>tion in Till<br>(C7)<br>a (D9)<br>emarks)<br>8 ' '<br>2 ''<br>2 '' | iving Roots<br>C4)<br>led Soils (C | Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Solution Visible on Aerial Imagery (C9) Solution or Stressed Plants (D1) Solution Geomorphic Position (D2) K FAC-Neutral Test (D5)  |
| Vetland Hyd<br>rimary Indica<br>Surface V<br>High Wate<br>Saturation<br>Water Ma<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depo<br>Inundation<br>Sparsely V<br>ald Observa<br>rface Water<br>aler Table P<br>turation Pre<br>cludes capil<br>scribe Reco | rology Indicators:<br>ators (minimum of or<br>Water (A1)<br>er Table (A2)<br>in (A3)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>isits (B5)<br>in Visible on Aerial In<br>Vegetated Concave<br>ations:<br>Present? Yes<br>sent? Yes<br>sent Yes<br>sent Yes<br>sent Yes<br>sent Yes<br>sent Yes<br>sent Yes<br>sent | nagery (E<br>Surface<br>es <u>¥</u><br>es <u>X</u><br>gauge, m | X Water-Sta<br>Aquatic Fa<br>True Aqua<br>Hydrogen<br>Oxidized F<br>Presence<br>Recent Inc<br>Thin Muck<br>(7) Gauge or<br>(88) Other (Ex)<br>No Depth (in<br>No Depth (in                          | ined Leav<br>auna (B1:<br>stic Plants<br>Sulfide C<br>Rhizospho<br>of Reduc<br>on Reduc<br>sufface<br>Well Data<br>plain in R<br>ches):<br>ches):<br>photos, p   | 3)<br>5 (B14)<br>odor (C1)<br>eres on L<br>ed Iron (C<br>tion in Till<br>(C7)<br>a (D9)<br>emarks)<br>8 ' '<br>2 ''<br>0 ''<br>previous l       | iving Roots<br>C4)<br>led Soils (C | Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) s (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) C6) Geomorphic Position (D2) FAC-Neutral Test (D5)   |

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| plicant/Owner: <u>NiSource</u><br>vestigator(s):   |             |             |             | State: <u>OH</u> Sampling Point: <u>WOOUP</u><br>age: TIN) RITW         |
|--|-------------|-------------|-------------|---|
|  |             |             |             |   |
| ndform (hillslope, terrace, etc.): Floor plain   |             |             |             |   |
| ope (%):   |             | .ong:       |             |   |
| hil Map Unit Name: EIC2  |             | N           | /           | NWI classification: NOL   |
| e climatic / hydrologic conditions on the site typical for this e Vegetation $\Lambda$ , Soil $N_{+}$ , or Hydrology $\sim$ si | time of yea | r? Yes      | No_         | (If no, explain in Remarks.)<br>Normal Circumstances" present? Yes X No |
| e Vegetation N, Soil N, or Hydrology N na  |             |             |             | eded, explain any answers in Remarks.)                                  |
| UMMARY OF FINDINGS - Attach site map s   |             |             |             |   |
|  | )           | Janpin      | g point is  |   |
|  |             | Is th       | e Sampled   | Area  |
|  |             | with        | in a Wetlan | d? Yes <u>X</u> No  |
| PEM PER to woold-<br>edges   | PE          | m           | win         | raw, etopps on  |
| EGETATION – Use scientific names of plants.  | Absolute    | Dominant    | Indicator   | Dominance Test worksheet:   |
| Tree Stratum (Plot size: 30 x 30 )   |             | Species?    | Status      | Number of Dominant Species  |
| Platanus occidentalis  | 10          | 4           | FIACW       | That Are OBL, FACW, or FAC: (A)   |
| 2. Acer rulerum.   | 3           | 4_          | EAC         | Total Number of Dominant  |
| repairs demontry   | 2           | -4-         | EAC         | Species Across All Strata: (B)  |
|  |             |             |             | Percent of Dominant Species   |
|  | 70          | = Total Co  | ver 4       | That Are OBL, FACW, or FAC: (A/B)                                       |
| Sapling/Shrub Stratum (Plot size: DXD )  | -00-        | 1010100     |             | Prevalence Index worksheet:   |
| Dertanus prescientering  | 10          | -1-         | FACW        | Total % Cover of: Multiply by:  |
| 2. 20Samo [Fillan  | 1           | N           | FACN        | OBL species x 1 =<br>FACW species x 2 =                                 |
| accornes anonum  | -2-         | -1          | FACIN       | FAC species x 2 =   |
|  |             | -           |             | FACU species x 4 =  |
| · · · · · · · · · · · · · · · · · · ·  | 15          | = Total Co  | ver 3       | UPL species x 5 =   |
| Herb Stratum (Plot size: 5.15)   | *           |             | ENIN        | Column Totals: (A) (B)  |
| Phalaris arendincrae   | 0           | 4           | r Hu        | Prevalence Index = B/A =  |
| verbising alternitolia   | 10          | N           | FACU        | Hydrophytic Vegetation Indicators:                                      |
| . Lemonia novebara censis  | -2          | 10          | racio       | 1 - Rapid Test for Hydrophytic Vegetation                               |
| 4  |             | -           |             | ¥ 2 - Dominance Test is >50%  |
| 5  |             |             |             | T 3 - Prevalence Index is ≤3.0'   |
| 5  |             |             |             | 4 - Morphological Adaptations' (Provide supporting                      |
| 3.   |             |             |             | data in Remarks or on a separate sheet)                                 |
| 9  |             |             |             | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)               |
| 10   |             |             | _           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must       |
|  | 95          | = Total Co  | over 19     | be present, unless disturbed or problematic.                            |
| Woody Vine Stratum (Plot size: 30x 30)   |             |             |             |   |
| 1 CLASPAZ  |             |             |             | Hydrophytic<br>Vegetation   |
| 2  |             | = Total Co  | over        | Present? Yes No   |
|  | sheet.)     | - I Otal Of |             |   |

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| Death  | Matrix  |   | oth needed to docu   | nont the  | mulcator   | or confirm                       | the absence of  | indicators.)   |
|--|---|---|--|---|--|----------------------------------|---|--|
| Depth<br>(inches)  | Color (moist)   | %                                       | Color (moist)  | x Feature<br>%  | Type   | 1.1                              | 5.00  |  |
| D-10   | DURUZ   | 95                                      | 10412 -1/4   | 3   | - TAbe   | M                                |   | Remarks  |
|  | to the second   |   | 10 10 14   |   |  |                                  | -clay-  |  |
|  | -   |   |  |   |  | _                                |   |  |
|  |   |   |  |   |  |                                  |   |  |
|  |   |   |  |   | _  |                                  |   |  |
|  | -   | · · · · ·                               |  |   |  |                                  |   |  |
|  |   | -                                       |  |   | _  |                                  |   |  |
| -  |   |   |  |   |  |                                  |   |  |
| Tune: 0-0  |   |   |  |   |  |                                  |   |  |
| Type: C=C  | oncentration, D=Dep<br>Indicators:  | letion, RM                              | =Reduced Matrix, M   | S=Maske   | ed Sand Gr   | ains.                            |   | PL=Pore Lining, M=Matrix.  |
| Histosol   |   |   |  |   |  |                                  |   | or Problematic Hydric Soils <sup>3</sup> :   |
|  | pipedon (A2)  |   |  |   | latrix (S4)  |                                  |   | rairie Redox (A16)   |
|  | istic (A3)  |   |  | Redox (S<br>d Matrix (  |  |                                  |   | rface (S7)   |
|  | en Sulfide (A4)   |   |  |   | lineral (F1)   |                                  |   | iganese Masses (F12)<br>allow Dark Surface (TF12)  |
| _ Stratifie  | d Layers (A5)   |   |  |   | Matrix (F2)  |                                  |   | xplain in Remarks)   |
|  | uck (A10)   |   | X Deplet   |   |  |                                  |   |  |
|  | d Below Dark Surfac   | æ (A11)                                 | the second se  | Dark Sur  |  |                                  |   |  |
|  | ark Surface (A12)   |   |  |   | Surface (F7  | )                                |   | f hydrophytic vegetation and   |
|  | Mucky Mineral (S1)  | 21                                      | Redox  | Depressi  | ons (F8)   |                                  |   | hydrology must be present,   |
|  | ucky Peat or Peat (S<br>Layer (if observed)   |   |  | _   |  |                                  | unless d  | isturbed or problematic.   |
| Type:  | Lafer (n observed)  |   |  |   |  |                                  | 1.0   |  |
|  | - healt   |   |  |   |  | 100                              | Hydric Soil P   | resent? Yes X No   |
|  |   |   |  |   |  |                                  | Hyuric Soli P   | resenti res A no   |
|  | iches):   |   |  |   |  |                                  | nyunc son r   |  |
| Remarks:   |   |   | _  |   |  |                                  |   |  |
| Remarks:<br>YDROLC   | DGY   |   |  |   |  |                                  |   |  |
| Remarks:<br>YDROLC<br>Wetland Hy   | DGY<br>/drology Indicators  |   | uired: check all that a  | (עוממו  |  |                                  |   |  |
| Remarks:<br>IYDROLO<br>Wetland Hy<br>Primary Ind   | DGY<br>vdrology Indicators<br>icators (minimum of   |   | 5.   |   | aves (89)  |                                  | <u>Secondar</u>   | y Indicators (minimum of two required  |
| Remarks:<br>YDROLC<br>Wetland Hy<br>Primary Ind<br>X Surface   | DGY<br>/drology Indicators<br>icators (minimum of<br>2 Water (A1)   |   | X Water-St   | ained Lea   |  |                                  | <u>Secondar</u>   | y Indicators (minimum of two required<br>ce Soil Cracks (86)   |
| Primary Ind<br>Surface<br>High W   | DGY<br>/drology Indicators<br>icators (minimum of<br>e Water (A1)<br>ater Table (A2)  |   | X Water-St   |   | 3)   |                                  | <u>Secondar</u><br>Surfa<br>义Drain  | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)   |
| Remarks:<br>IYDROLC<br>Wetland Hy<br>Primary Ind<br>X Surface<br>High W<br>X Saturat   | DGY<br>vdrology Indicators<br>icators (minimum of<br>water (A1)<br>ater Table (A2)<br>ion (A3)  |   | X Water-St<br>Aquatic F<br>True Aqu  | ained Lea<br>Fauna (B1<br>Natic Plant   | 3)   |                                  | <u>Secondar</u><br>Surfa<br>∑Drain<br>Dry-S   | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>season Water Table (C2)  |
| Remarks:<br>IYDROLC<br>Wetland Hy<br>Primary Ind<br>X Surface<br>High W<br>X Saturat<br>X Water M  | DGY<br>/drology Indicators<br>icators (minimum of<br>e Water (A1)<br>ater Table (A2)  |   | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen  | ained Lea<br>Fauna (B1<br>Patic Plant<br>In Sulfide (   | 3)<br>ts (B14)   |                                  | <u>Secondar</u><br>Surfa<br>&Drain<br>Dry-S<br>Crayf  | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)   |
| Remarks:<br>YDROLO<br>Wetland Hy<br>Primary Ind<br>X Surface<br>High W<br>X Saturat<br>Water M<br>Sedime   | DGY<br>vdrology Indicators<br>icators (minimum of<br>water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)  |   | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen<br>Oxidized  | ained Lea<br>auna (B1<br>atic Plant<br>n Sulfide (<br>Rhizosph  | 3)<br>ts (B14)<br>Odor (C1)  | ving Roots                       | Secondar<br>Surfa<br>Drain<br>Dry-S<br>Crayf<br>(C3)Satur   | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)   |
| Primarks:<br>YDROLO<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De  | DGY<br>vdrology Indicators<br>icators (minimum of<br>e Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>nt Deposits (B2)  |   | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen<br>Oxidized<br>Presence  | ained Lea<br>auna (B1<br>atic Plant<br>n Sulfide (<br>Rhizosph<br>e of Reduc  | 3)<br>ts (B14)<br>Odor (C1)<br>heres on Li   | ving Roots<br>(4)                | Secondar<br>Surfa<br>&Drain<br>Dry-S<br>Crayl<br>(C3)Satur<br>Sturt   | y Indicators (minimum of two required<br>ce Soil Cracks (86)<br>age Patterns (B10)<br>season Water Table (C2)<br>fish Burrows (C8)<br>ation Visible on Aerial Imagery (C9)   |
| Primary Ind<br>VDROLO<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M   | OGY<br>vdrology Indicators<br>icators (minimum of<br>Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>int Deposits (B2)<br>posits (B3)  |   | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen<br>Oxidized<br>Presence<br>Recent In   | ained Lea<br>auna (B1<br>atic Plant<br>n Sulfide (<br>Rhizosph<br>e of Reduc  | 3)<br>ts (B14)<br>Odor (C1)<br>neres on Lin<br>ced Iron (C<br>ction in Tille                                 | ving Roots<br>(4)                | Surfa<br>Surfa<br>↓Drain<br>Dry-S<br>Crayt<br>(C3)Satur<br>Sturt<br>6) ↓ Geor                                       | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>season Water Table (C2)<br>ish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ed or Stressed Plants (D1)   |
| Remarks:<br>YDROLO<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De   | DGY<br>vdrology Indicators<br>icators (minimum of<br>Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>int Deposits (B2)<br>posits (B3)<br>at or Crust (B4)  | one is requ                             | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen<br>Oxidized<br>Presence<br>Recent In<br>Thin Muc   | ained Lea<br>Fauna (B1<br>Patic Plant<br>In Sulfide (<br>Rhizosph<br>of Reduction<br>Fon Reduction  | 3)<br>Is (B14)<br>Odor (C1)<br>neres on Li<br>ced Iron (C<br>ction In Tille<br>e (C7)                        | ving Roots<br>(4)                | Surfa<br>Surfa<br>↓Drain<br>Dry-S<br>Crayt<br>(C3)Satur<br>Sturt<br>6) ↓ Geor                                       | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>red or Stressed Plants (D1)<br>norphic Position (D2)                    |
| Primarks:<br>YDROLO<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat   | DGY<br>drology Indicators<br>icators (minimum of<br>Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)   | one is requ                             | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen<br>Oxidized<br>Presence<br>Recent In<br>Thin Muc<br>B7) Gauge o  | ained Lea<br>auna (B1<br>atic Plant<br>n Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>ch Surface<br>r Well Dat  | 3)<br>Is (B14)<br>Odor (C1)<br>neres on Li<br>ced Iron (C<br>ction In Tille<br>e (C7)                        | ving Roots<br>(4)                | Surfa<br>Surfa<br>↓Drain<br>Dry-S<br>Crayt<br>(C3)Satur<br>Sturt<br>6) ↓ Geor                                       | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>red or Stressed Plants (D1)<br>norphic Position (D2)                    |
| Primarks:<br>YDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel  | OGY<br>vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>int Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav  | one is requ                             | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen<br>Oxidized<br>Presence<br>Recent In<br>Thin Muc<br>B7) Gauge o  | ained Lea<br>auna (B1<br>atic Plant<br>n Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>ch Surface<br>r Well Dat  | 3)<br>ds (B14)<br>Odor (C1)<br>heres on Lir<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)            | ving Roots<br>(4)                | Surfa<br>Surfa<br>↓Drain<br>Dry-S<br>Crayt<br>(C3)Satur<br>Sturt<br>6) ↓ Geor                                       | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>red or Stressed Plants (D1)<br>norphic Position (D2)                    |
| Remarks:<br>YDROLC<br>Wetland Hy<br>Primary Ind<br>X Surface<br>High W<br>X Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Field Obser  | DGY<br>vdrology Indicators<br>icators (minimum of<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav<br>vations:   | one is requ                             | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen<br>Oxidized<br>Presence<br>Recent In<br>Thin Muc<br>B7) Gauge o  | ained Lea<br>Fauna (B1<br>Fautic Plant<br>In Sulfide (<br>Rhizosph<br>e of Reductor<br>on Reductor<br>on Reductor<br>k Surface<br>r Well Data<br>kplain in F  | 3)<br>ds (B14)<br>Odor (C1)<br>heres on Lir<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)            | ving Roots<br>(4)                | Surfa<br>Surfa<br>↓Drain<br>Dry-S<br>Crayt<br>(C3)Satur<br>Sturt<br>6) ↓ Geor                                       | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>red or Stressed Plants (D1)<br>norphic Position (D2)                    |
| Remarks:<br>IYDROLO<br>Wetland Hy<br>Primary Ind<br>Y Surface<br>High W<br>Saturat<br>Water N<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Field Obser<br>Surface Water  | DGY<br>vdrology Indicators<br>icators (minimum of<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>mt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav<br>vations:   | Imagery (<br>e Surface                  | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen<br>Oxidized<br>Presence<br>Recent In<br>Thin Muc<br>B7) Gauge o<br>(B8) Other (E)  | ained Lea<br>Fauna (B1<br>Fauna (B1<br>n Sulfide (<br>Rhizosph<br>of Reduc<br>on Reduc<br>on Reduc<br>k Surface<br>r Well Dat<br>kplain in F  | 3)<br>ds (B14)<br>Odor (C1)<br>heres on Lir<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)            | ving Roots<br>(4)                | Surfa<br>Surfa<br>↓Drain<br>Dry-S<br>Crayt<br>(C3)Satur<br>Sturt<br>6) ↓ Geor                                       | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>red or Stressed Plants (D1)<br>norphic Position (D2)                    |
| Remarks:<br>YDROLO<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Field Obser<br>Surface Wal<br>Water Table  | DGY<br>drology Indicators<br>icators (minimum of<br>Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>int Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav<br>vations:<br>Present?                                   | Imagery (<br>e Surface                  | X Water-St<br>Aquatic F<br>True Aqu<br>Hydrogen<br>Oxidized<br>Presence<br>Recent In<br>Thin Muc<br>B7) Gauge o<br>(B8) Other (E)<br>No Depth (i                                   | ained Lea<br>Fauna (B1<br>Fatic Plant<br>n Sulfide (<br>Rhizosph<br>e of Reduc<br>on Reduc<br>on Reduc<br>k Surface<br>r Well Dal<br>kxplain in F<br>nches):<br>nches): _   | 3)<br>ds (B14)<br>Odor (C1)<br>heres on Lir<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)            | ving Roots<br>:4)<br>ed Soils (C | Secondar<br>Surfa<br>Drain<br>Dry-S<br>Crayf<br>(C3) Satur<br>Stunt<br>6) X Geor<br>X FAC-                          | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>red or Stressed Plants (D1)<br>norphic Position (D2)                    |
| Primarks:<br>YDROLC<br>Wetland Hy<br>Primary Ind<br>Y Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Field Obser<br>Surface Water<br>Surface Water Table<br>Saturation P<br>includes ca  | DGY<br>vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>int Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav<br>vations:<br>Present?<br>Present?<br>pollary fringe) | Imagery (<br>re Surface<br>res <u>v</u> | Kuter-St     Aquatic F     Aquatic F     True Aqu     Hydrogen     Oxidized     Presence     Recent In     Thin Muc B7) Gauge o     (B8) Other (E)     No Depth (i     No Depth (i | ained Lea<br>Fauna (B1<br>hatic Plant<br>h Sulfide (<br>Rhizosph<br>e of Reduc<br>ton Reduc<br>ton Reduc<br>ton Reduc<br>to Reduc<br>ton Reduc<br>to Redu | 3)<br>ts (B14)<br>Odor (C1)<br>neres on Li<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)<br>Remarks) | ving Roots<br>(4)<br>ed Soils (C | Secondar<br>Surfa<br>Surfa<br>Drain<br>Dry-S<br>Crayf<br>(C3) Satur<br>Stunt<br>6) X Geor<br>FAC-<br>Iand Hydrology | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>ed or Stressed Plants (D1)<br>norphic Position (D2)<br>Neutral Test (D5) |
| Primarks:<br>YDROLC<br>Wetland Hy<br>Primary Ind<br>Y Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Field Obser<br>Surface Water<br>Surface  | DGY<br>vdrology Indicators<br>icators (minimum of<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>mt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav<br>vations:<br>ter Present?<br>Present?                                 | Imagery (<br>re Surface<br>res <u>v</u> | Kuter-St     Aquatic F     Aquatic F     True Aqu     Hydrogen     Oxidized     Presence     Recent In     Thin Muc B7) Gauge o     (B8) Other (E)     No Depth (i     No Depth (i | ained Lea<br>Fauna (B1<br>tratic Plant<br>n Sulfide (<br>Rhizosph<br>e of Reduc<br>on Reduc<br>on Reduc<br>k Surface<br>r Well Dal<br>kplain in F<br>nches):<br>nches):<br>nches):<br>l photos,   | 3)<br>ts (B14)<br>Odor (C1)<br>neres on Li<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)<br>Remarks) | ving Roots<br>(4)<br>ed Soils (C | Secondar<br>Surfa<br>Surfa<br>Drain<br>Dry-S<br>Crayf<br>(C3) Satur<br>Stunt<br>6) X Geor<br>FAC-<br>Iand Hydrology | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>ed or Stressed Plants (D1)<br>norphic Position (D2)<br>Neutral Test (D5) |
| Remarks:<br>YDROLC<br>Wetland Hy<br>Primary Ind<br>Y Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Field Obser<br>Surface Water<br>Surface W | DGY<br>vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>int Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav<br>vations:<br>Present?<br>Present?<br>pollary fringe) | Imagery (<br>re Surface<br>res <u>v</u> | Kuter-St     Aquatic F     Aquatic F     True Aqu     Hydrogen     Oxidized     Presence     Recent In     Thin Muc B7) Gauge o     (B8) Other (E)     No Depth (i     No Depth (i | ained Lea<br>Fauna (B1<br>hatic Plant<br>h Sulfide (<br>Rhizosph<br>e of Reduc<br>ton Reduc<br>ton Reduc<br>ton Reduc<br>to Reduc<br>ton Reduc<br>to Redu | 3)<br>ts (B14)<br>Odor (C1)<br>neres on Li<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)<br>Remarks) | ving Roots<br>(4)<br>ed Soils (C | Secondar<br>Surfa<br>Surfa<br>Drain<br>Dry-S<br>Crayf<br>(C3) Satur<br>Stunt<br>6) X Geor<br>FAC-<br>Iand Hydrology | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>ed or Stressed Plants (D1)<br>norphic Position (D2)<br>Neutral Test (D5) |
| Remarks:<br>IYDROLC<br>Wetland Hy<br>Primary Ind<br>X Surface<br>High W<br>X Saturat<br>C Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Field Obser<br>Surface Water<br>Surface Water Table<br>Saturation Pri<br>(includes ca   | DGY<br>vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>int Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav<br>vations:<br>Present?<br>Present?<br>pollary fringe) | Imagery (<br>re Surface<br>res <u>v</u> | Kuter-St     Aquatic F     Aquatic F     True Aqu     Hydrogen     Oxidized     Presence     Recent In     Thin Muc B7) Gauge o     (B8) Other (E)     No Depth (i     No Depth (i | ained Lea<br>Fauna (B1<br>tratic Plant<br>n Sulfide (<br>Rhizosph<br>e of Reduc<br>on Reduc<br>on Reduc<br>k Surface<br>r Well Dal<br>kplain in F<br>nches):<br>nches):<br>nches):<br>l photos,   | 3)<br>ts (B14)<br>Odor (C1)<br>neres on Li<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)<br>Remarks) | ving Roots<br>(4)<br>ed Soils (C | Secondar<br>Surfa<br>Surfa<br>Drain<br>Dry-S<br>Crayf<br>(C3) Satur<br>Stunt<br>6) X Geor<br>FAC-<br>Iand Hydrology | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>ed or Stressed Plants (D1)<br>norphic Position (D2)<br>Neutral Test (D5) |
| Remarks:<br>WDROLC<br>Wetland Hy<br>Primary Ind<br>Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Field Obser<br>Surface Wa<br>Water Table<br>Saturation P<br>Cincludes ca<br>Describe Re  | DGY<br>vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>int Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav<br>vations:<br>Present?<br>Present?<br>pollary fringe) | Imagery (<br>re Surface<br>res <u>v</u> | Kuter-St     Aquatic F     Aquatic F     True Aqu     Hydrogen     Oxidized     Presence     Recent In     Thin Muc B7) Gauge o     (B8) Other (E)     No Depth (i     No Depth (i | ained Lea<br>Fauna (B1<br>tratic Plant<br>n Sulfide (<br>Rhizosph<br>e of Reduc<br>on Reduc<br>on Reduc<br>k Surface<br>r Well Dal<br>kplain in F<br>nches):<br>nches):<br>nches):<br>l photos,   | 3)<br>ts (B14)<br>Odor (C1)<br>neres on Li<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)<br>Remarks) | ving Roots<br>(4)<br>ed Soils (C | Secondar<br>Surfa<br>Surfa<br>Drain<br>Dry-S<br>Crayf<br>(C3) Satur<br>Stunt<br>6) X Geor<br>FAC-<br>Iand Hydrology | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>ed or Stressed Plants (D1)<br>norphic Position (D2)<br>Neutral Test (D5) |
| Remarks:<br>YDROLO<br>Wetland Hy<br>Primary Ind<br>Y Surface<br>High W<br>Saturat<br>Water M<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Field Obser<br>Surface Wa'<br>Water Table<br>Saturation P<br>Cincludes ca<br>Describe Re   | DGY<br>vdrology Indicators<br>icators (minimum of<br>a Water (A1)<br>ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>int Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>ion Visible on Aerial<br>y Vegetated Concav<br>vations:<br>Present?<br>Present?<br>pollary fringe) | Imagery (<br>re Surface<br>res <u>v</u> | Kuter-St     Aquatic F     Aquatic F     True Aqu     Hydrogen     Oxidized     Presence     Recent In     Thin Muc B7) Gauge o     (B8) Other (E)     No Depth (i     No Depth (i | ained Lea<br>Fauna (B1<br>tratic Plant<br>n Sulfide (<br>Rhizosph<br>e of Reduc<br>on Reduc<br>on Reduc<br>k Surface<br>r Well Dal<br>kplain in F<br>nches):<br>nches):<br>nches):<br>l photos,   | 3)<br>ts (B14)<br>Odor (C1)<br>neres on Li<br>ced Iron (C<br>ction in Tille<br>e (C7)<br>ta (D9)<br>Remarks) | ving Roots<br>(4)<br>ed Soils (C | Secondar<br>Surfa<br>Surfa<br>Drain<br>Dry-S<br>Crayf<br>(C3) Satur<br>Stunt<br>6) X Geor<br>FAC-                   | y Indicators (minimum of two required<br>ce Soil Cracks (B6)<br>age Patterns (B10)<br>iseason Water Table (C2)<br>ish Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>ed or Stressed Plants (D1)<br>norphic Position (D2)<br>Neutral Test (D5) |

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US Army Corps of Engineers

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|   | WETLAND DETERMIN                 | ATION DATA FORM - Midwest Region   |
|---|----------------------------------|--|
| Project/Site: NCHP  |                                  | _ City/County: Columbus Frankl Sampling Date: 313/2  |
| pplicant/Owner: N. SOURC  | ie                               |  |
| ivestigator(s): DEL   |                                  | _ Section, Township, Range: TIN & FW   |
| indform (hillslope, terrace, etc.): D4  |                                  |  |
| ope (%): Lat:   |                                  | Local relief (concave, convex, none): CON( CI Ve   |
| il Map Unit Name: EC  |                                  | Long: Datum  |
| A second s | AL                               | NWI classification: PUD (7)  |
| e climatic / hydrologic conditions on e Vegetation $M$ , Soil $N$ , o   | the site typical for this time o | f year? Yes X No (If no, explain in Remarks.)  |
| Vegetation A Soil A   | significant significant          | nlly disturbed? Are "Normal Circumstances" present? Yes X No                               |
| e Vegetation <u>N</u> , Soil <u>N</u> , o   |                                  |  |
| UMMARY OF FINDINGS - /  | Attach site map showi            | ng sampling point locations, transects, important features, etc.                           |
| lydrophytic Vegetation Present?   | Yes 🖌 No                         |  |
| lydric Soil Present?  | Yes Y No                         |  |
| Vetland Hydrology Present?  | Yes X No                         | within a Wetland? Yes <u>No</u> No   |
| emarks:   | /                                |  |
|   |                                  |  |
|   |                                  |  |
| GETATION - Use scientific   | names of plants.                 |  |
| ee Stratum (Plot size: 43   | Absol                            |  |
| ACPX (JOVIM   | $\sim$ $\frac{\% c_0}{30}$       | Ver Species? Status<br>V FAC The Are OBL FACW or FAC: 11 (A)                               |
| Platavius Deri  | rentalis is                      | That Are OBL, FACW, or FAC: (A)  |
| POQUES delton   | 45 10                            | A CIPIC Total Number of Dominant   |
|   |                                  | B)   |
|   | the second second                | Percent of Dominant Species 106  |
|   | 1,12 2656                        | = Total Cover 1 That Are OBL, FACW, or FAC: (A/B)  |
| apling/Shrub Stratum (Plot size:  |                                  | Y FAC Total & Cover of:  |
| Platernus Dec   | iclestalies 10                   | A Multiply by  |
|   | A                                |  |
| Fluences ferri  | Sylvanica 3                      |  |
|   |                                  | FAC species x 3 =<br>FACU species x 4 =  |
| 1.6   | 30 62                            | D = Total Cover (C UPL species X4 =  |
| rb Stratum (Plot size: 5X7  | )                                |  |
| Phalaris avinc  | linural 70                       | 2 FACW Column Totals: (A) (B)  |
|   |                                  | 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 Adaptations' (Provide supporting data in Remarks or on a separate sheet) |
|   |                                  |  |
|   |                                  |  |
|   | 14                               | Total Cover  |
| ody Vine Stratum (Plot size:  | )                                | 2 = Total Cover be present, unless disturbed or problematic.                               |
| MAC OIL   | X                                | Hudrophytic  |
|   | 1                                | Vegetation   |
| FIN AUT   |                                  |  |
| Fin DUI   |                                  | = Total Cover Present? Yes No  |

| Clay/2;     Remarks  |
|--|
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|  |
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| 2  |
|  |
| 2 al Die Later Melletie  |
| 2 al Die Deer History Mallatin   |
| 2 Di Dave Liete e Melletriu  |
| <sup>2</sup> Location: PL=Pore Lining, M=Matrix.                       |
| Indicators for Problematic Hydric Soils <sup>3</sup> :                 |
| Coast Prairie Redox (A16)  |
| Dark Surface (S7)  |
| Iron-Manganese Masses (F12)  |
| Very Shallow Dark Surface (TF12)                                       |
| Other (Explain in Remarks)   |
|  |
|  |
| <sup>3</sup> Indicators of hydrophytic vegetation and                  |
| wetland hydrology must be present,<br>unless disturbed or problematic. |
| Unless disturbed of problematic.                                       |
|  |
| Hydric Soil Present? Yes X No  |
| ······································                                 |
|  |
|  |
| Secondary Indicators (minimum of two required)                         |
|  |
| Surface Soil Cracks (B6)   |
| Drainage Patterns (B10)  |
| Dry-Season Water Table (C2)  |
| Crayfish Burrows (C8)  |
| oots (C3) Saturation Visible on Aerial Imagery (C9)                    |
| Stunted or Stressed Plants (D1)  |
| s (C6) 🔨 Geomorphic Position (D2)                                      |
| FAC-Neutral Test (D5)  |
|  |
|  |
|  |
|  |
|  |
| Netland Hydrology Present? Yes / No                                    |
| retain iyu ology Flasentr Test 10                                      |
| ns), if available:   |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Midwest Region - Version 2.0

11

|  |              |                                       |  | Reset Form                          | Print F     |
|--|--------------|---------------------------------------|--|-------------------------------------|-------------|
|  |              |                                       |  | ATTACHMENT                          | С           |
|  |              |                                       | I – Midwest Regio                            |                                     |             |
| oject/Site: North Columbus High Pressure Pipeline Proje          | ct           | City/County: Gahanna                  | h/Franklin                                   | Sampling Date: 12/                  | /17/24      |
| oplicant/Owner: <u>Campos EPC</u>                                |              |                                       | State: OH                                    | _ Sampling Point: We                | et 8        |
| vestigator(s): AAY   |              | Section, Township, Ra                 | ange: <u>T/N R116W</u>                       |                                     |             |
| ndform (hillslope, terrace, etc.): Depression                    |              | Local relief                          | (concave, convex, none                       | e): <u>Concave</u>                  |             |
| ope (%): <u>0-3</u> Lat: <u>40.022098°</u>                       |              | Long: <u>-82.941762°</u>              |  | Datum: NAD 83                       |             |
| il Map Unit Name: <u>Cardington silt loam, 2 to 6 percent sl</u> | opes         |                                       | NWI or WWI                                   | classification: NA                  |             |
| e climatic / hydrologic conditions on the site typical for this  | s time of ye | ar? Yes X No                          | (If no, explain in                           | Remarks.)                           |             |
| e Vegetation, Soil, or Hydrologys                                | ignificantly | disturbed? Are                        | "Normal Circumstances                        | " present? Yes X                    | No          |
| e Vegetation, Soil, or Hydrology r                               |              |                                       | eeded, explain any ansv                      | vers in Remarks.)                   |             |
|  |              |                                       |  |                                     |             |
| UMMARY OF FINDINGS – Attach site map                             | snowing      | sampling point                        | iocations, transec                           | ts, important lea                   | lures, etc. |
| Hydrophytic Vegetation Present? Yes X N                          | 0            | Is the Sample                         | d Aroo                                       |                                     |             |
| lydric Soil Present? Yes X N                                     | o            | within a Wetla                        |  | X No                                |             |
| Vetland Hydrology Present? Yes X N                               | o            | within a wetta                        | iid: 163                                     |                                     |             |
| Remarks:   |              |                                       |  |                                     |             |
| FO rep to Wetland 8  |              |                                       |  |                                     |             |
|  |              |                                       |  |                                     |             |
| EGETATION – Use scientific names of plants.                      |              |                                       | -  |                                     |             |
| ree Stratum (Plot size: 30')                                     |              | Dominant Indicator<br>Species? Status | Dominance Test wo                            |                                     |             |
| Populus deltoides  | 70           | Y FAC                                 | Number of Dominant                           | Species /, or FAC: 2                | (A)         |
| · ·  |              |                                       |  |                                     | (//)        |
|  |              |                                       | Total Number of Dom<br>Species Across All St |                                     | (B)         |
| -  |              |                                       |  |                                     | (=)         |
| 5  |              |                                       | Percent of Dominant<br>That Are OBL, FACW    |                                     | ) (A/B)     |
|  | 70           | = Total Cover                         | Prevalence Index we                          |                                     | 、 ,         |
| Sapling/Shrub Stratum (Plot size:0) Populus deltoides            | 20           | Y FAC                                 | Total % Cover of                             |                                     |             |
|  |              |                                       |  | $\frac{0}{x 1 = 0}$                 |             |
|  |              |                                       |  | $0 	 x^2 = 0$                       |             |
|  |              |                                       |  | 90 $x_3 = 27$                       | 0           |
| ·  |              |                                       | FACU species                                 | 0 x 4 = 0                           | )           |
|  |              | = Total Cover                         |  | 0 x 5 = 0                           | )           |
| lerb Stratum (Plot size: 5' )                                    |              |                                       |  | 90 (A) 27                           | '0 (B)      |
|  |              |                                       |  | 2.00                                |             |
|  |              |                                       |  | ex = B/A = 3.00                     | )           |
| ·  |              |                                       | Hydrophytic Vegeta                           |                                     |             |
| ·  |              |                                       | X Prevalence Index                           |                                     |             |
|  |              |                                       |  | daptations <sup>1</sup> (Provide su | Innortina   |
|  |              |                                       |  | rks or on a separate sh             |             |
| ·  |              |                                       | Problematic Hyd                              | rophytic Vegetation <sup>1</sup> (E | Explain)    |
|  |              |                                       |  |                                     |             |
| <br>0  |              |                                       |  | oil and wetland hydrol              |             |
|  |              | = Total Cover                         | be present, unless dis                       | sturbed or problematic              | •           |
| Voody Vine Stratum (Plot size: 15')                              |              |                                       |  |                                     |             |
| 1  |              |                                       | Hydrophytic<br>Vegetation                    |                                     |             |
| ·  |              |                                       |  |                                     |             |
| l<br>2   |              | = Total Cover                         | Present?                                     | /es <u>X</u> No                     |             |

#### SOIL

### ATTACHMENT C

Sampling Point: Wet 8

| Profile Des  | cription: (Describe                                 | to the depth   | needed to docur     | ment the i     | indicator         | or confirm       | n the absence  | of indicators.)                          |  |  |  |
|--|---|----------------|---------------------|----------------|-------------------|------------------|--|--|--|--|--|
| Depth Matrix Redox Features  |   |                |                     |                |                   |                  |  |  |  |  |  |
| (inches)   | Color (moist)                                       | %              | Color (moist)       | %              | Type <sup>1</sup> | Loc <sup>2</sup> | Texture  | Remarks                                  |  |  |  |
| 0-6  | 2.5Y 4/2  | 90             | 10YR 5/6            | 10             | C                 | M                | SiCL   |  |  |  |  |
| 6-15   | 2.5Y 5/2  | 80             | 10YR 5/6            | 20             | С                 | М                | Clay   |  |  |  |  |
|  |   |                |                     |                |                   |                  |  |  |  |  |  |
|  |   |                |                     |                | ·                 |                  |  |  |  |  |  |
|  |   |                |                     |                | ·                 |                  |  |  |  |  |  |
|  |   |                |                     |                |                   |                  |  |  |  |  |  |
|  |   |                |                     |                |                   |                  |  |  |  |  |  |
|  |   |                |                     |                |                   |                  |  |  |  |  |  |
| $^{1}$ Type: C=C   | Concentration D=Depl                                | etion RM=Re    | educed Matrix CS    | -<br>S=Covered | d or Coate        | d Sand G         | rains <sup>2</sup> Loc   | ation: PI = Pore Lining M=Matrix         |  |  |  |
| <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.<br>Hydric Soil Indicators: Indicators for Problematic Hydric Soils <sup>3</sup> : |   |                |                     |                |                   |                  |  |  |  |  |  |
| Histoso  |   |                | Sandy (             | Gleved Ma      | atrix (S4)        |                  |  | Prairie Redox (A16)                      |  |  |  |
|  | pipedon (A2)  |                | Sandy F             | -              |                   |                  | Iron-Manganese Masses (F12)  |  |  |  |  |
|  | istic (A3)  |                |                     | d Matrix (S    |                   |                  | Other (Explain in Remarks)   |  |  |  |  |
|  | en Sulfide (A4)                                     |                | Loamy               | Mucky Mir      | neral (F1)        |                  |  |  |  |  |  |
|  | d Layers (A5)                                       |                |                     | Gleyed Ma      |                   |                  |  |  |  |  |  |
|  | uck (A10)   |                | X Deplete           |                |                   |                  |  |  |  |  |  |
|  | d Below Dark Surface                                | e (A11)        |                     | Dark Surfa     | • •               |                  | 31 12 1  |  |  |  |  |
|  | ark Surface (A12)<br>Mucky Mineral (S1)             |                |                     |                | Irface (F7)       |                  | <sup>3</sup> Indicators of hydrophytic vegetation and                  |  |  |  |  |
|  | ucky Peat or Peat (S3                               | )              |                     | Depressio      | 115 (FO)          |                  | wetland hydrology must be present,<br>unless disturbed or problematic. |  |  |  |  |
|  | Layer (if observed):                                | )              |                     |                |                   |                  |  |  |  |  |  |
| Type:  |   |                |                     |                |                   |                  |  |  |  |  |  |
| Depth (ir  |   |                | —                   |                |                   |                  | Hydric Soil  | Present? Yes X No                        |  |  |  |
| Remarks:   | iciles).  |                |                     |                |                   |                  | Hyune Son  |  |  |  |  |
| Remarks.   |   |                |                     |                |                   |                  |  |  |  |  |  |
|  |   |                |                     |                |                   |                  |  |  |  |  |  |
| Meets F3   |   |                |                     |                |                   |                  |  |  |  |  |  |
|  |   |                |                     |                |                   |                  |  |  |  |  |  |
|  | <u></u>   |                |                     |                |                   |                  |  |  |  |  |  |
| HYDROLC  |   |                |                     |                |                   |                  |  |  |  |  |  |
| -  | drology Indicators:                                 |                |                     |                |                   |                  |  |  |  |  |  |
| Primary Indi   | cators (minimum of or                               | ne is required | ; check all that ap | oply)          |                   |                  | Seconda  | ary Indicators (minimum of two required) |  |  |  |
|  | Water (A1)  |                | 🗙 Water-Sta         |                | • •               |                  | Surface Soil Cracks (B6)   |  |  |  |  |
| X High W   | X     High Water Table (A2)     Aquatic Fauna (B13) |                |                     |                |                   |                  |  | Drainage Patterns (B10)                  |  |  |  |
| X Saturation (A3) True Aquatic Plants (B14)  |   |                |                     |                |                   |                  |  | Dry-Season Water Table (C2)              |  |  |  |
| Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)  |   |                |                     |                |                   |                  |  |  |  |  |  |
| Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)  |   |                |                     |                |                   |                  |  |  |  |  |  |
| Drift Deposits (B3) Presence of Reduced Iron (C4) X Stunted or Stressed Plants (D1)  |   |                |                     |                |                   |                  |  |  |  |  |  |
| Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)  |   |                |                     |                |                   |                  |  |  |  |  |  |
| Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5)  |   |                |                     |                |                   |                  |  |  |  |  |  |
|  | ion Visible on Aerial I                             |                | Gauge or            |                |                   |                  |  |  |  |  |  |
| ·  | y Vegetated Concave                                 | Surface (B8)   | Other (Exp          | plain in Re    | emarks)           |                  |  |  |  |  |  |
| Field Obser  |   |                |                     |                | 0                 |                  |  |  |  |  |  |
| Surface Wa   |   |                | Depth (in           |                |                   | -                |  |  |  |  |  |
| Water Table  | Vater Table Present? Yes X No Depth (inches): 0     |                |                     |                |                   |                  |  |  |  |  |  |
|  |   |                |                     |                |                   |                  |  | y Present? Yes <u>X</u> No               |  |  |  |
| (includes capillary fringe)<br>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  |   |                |                     |                |                   |                  |  |  |  |  |  |
| Describe recorded Data (stream yauye, monitoring weil, athat photos, previous inspections), il available.  |   |                |                     |                |                   |                  |  |  |  |  |  |
| Deveragion   |   |                |                     |                |                   |                  |  |  |  |  |  |
| Remarks:   |   |                |                     |                |                   |                  |  |  |  |  |  |
|  |   |                |                     |                |                   |                  |  |  |  |  |  |
| Standing w   | ater  |                |                     |                |                   |                  |  |  |  |  |  |
|  |   |                |                     |                |                   |                  |  |  |  |  |  |

|   |              |                |                      | Reset Form Pri  |
|---|--------------|----------------|----------------------|---|
|   |              |                |                      | ATTACHMENT C  |
| WETLAND DETE  | RMINAT       | ION D          | ATA FORM             | – Midwest Region  |
| roject/Site: North Columbus High Pressure Pipeline Proje  | ct           | City/Cou       | unty: <u>Gahanna</u> | h/Franklin Sampling Date: 12/17/24                                  |
| oplicant/Owner: Campos EPC  |              |                |                      | State: OH Sampling Point: Wet 9                                     |
| vestigator(s): AAY  |              | Section        | , Township, Ra       | nge: <u>T/N R116W</u>   |
| andform (hillslope, terrace, etc.): <u>Toeslope</u>   |              |                | Local relief         | (concave, convex, none): Concave                                    |
| ope (%): <u>0-3</u> Lat: <u>019161°</u>   |              | Long: <u>-</u> | 82.881995°           | Datum: NAD 83   |
| oil Map Unit Name: <u>Sloan silt loam, Columbus Lowland, C</u>  | to 2 percei  | nt slope:      | s, frequently flo    | oded NWI or WWI classification: PFO1C                               |
| e climatic / hydrologic conditions on the site typical for this   | s time of ye | ar? Yes        | s_X_No_              | (If no, explain in Remarks.)  |
| re Vegetation, Soil, or Hydrologys  | ignificantly | disturbe       | ed? Are              | 'Normal Circumstances" present? Yes 🔀 No 🔄                          |
| re Vegetation, Soil, or Hydrology r   | aturally pro | blemati        | c? (If ne            | eeded, explain any answers in Remarks.)                             |
| UMMARY OF FINDINGS – Attach site map  | showina      | samr           | olina point l        | ocations, transects, important features, e                          |
|   |              |                |                      | ······································                              |
| Hydrophytic Vegetation Present? Yes X N   |              | 1              | s the Sampled        | I Area  |
| Hydric Soil Present?         Yes X         N           Wetland Hydrology Present?         Yes X         N |              | ۱<br>۱         | within a Wetla       | nd? Yes <u>X</u> No   |
| Wetland Hydrology Present? Yes X N<br>Remarks:  | 0            |                |                      |   |
|   |              |                |                      |   |
| PFO/PEM rep to Wetland 9  |              |                |                      |   |
| EGETATION – Use scientific names of plants  |              |                |                      |   |
| · · · · · ·   |              | Domir          | ant Indicator        | Dominance Test worksheet:   |
| Tree Stratum (Plot size:30')  | % Cover      | Specie         | es? Status           | Number of Dominant Species  |
| 1. Platanus occidentalis  |              |                | FACW                 | That Are OBL, FACW, or FAC: (A)                                     |
| 2   |              |                |                      | Total Number of Dominant  |
| 3   |              |                |                      | Species Across All Strata: 2 (B)                                    |
| 4   |              |                |                      | Percent of Dominant Species   |
| 5   |              | = Total        | Cover                | That Are OBL, FACW, or FAC: 100.00 (A/I                             |
| Sapling/Shrub Stratum (Plot size: 15')  |              | - 10tai        | 00701                | Prevalence Index worksheet:   |
| 1   |              |                |                      | Total % Cover of: Multiply by:                                      |
| 2   |              |                |                      | OBL species         80         x 1 =         80                     |
| 3   |              |                |                      | FACW species $30 \times 2 = 60$                                     |
| 4   |              |                |                      | FAC species $0$ $x 3 =$ $0$ FACU species $0$ $x 4 =$ $0$            |
| 5   |              | = Total        |                      | FACU species $0$ $x 4 = 0$ UPL species $0$ $x 5 = 0$                |
| Herb Stratum (Plot size: <u>5'</u> )  |              | = rotar        | Cover                | Column Totals:         110         (A)         140         (B)      |
| 1. Typha latifolia  | 70           | Y              | OBL                  |   |
| 2. Epilobium hirsutum   | 10           | N              | FACW                 | Prevalence Index = B/A =1.27  |
| 3. Polygonum pensylvanicum  | 10           | <u>N</u>       |                      | Hydrophytic Vegetation Indicators:                                  |
| Persicaria sagittata  | 10           | N              |                      | X Dominance Test is >50%<br>X Prevalence Index is ≤3.0 <sup>1</sup> |
| 5   |              |                |                      | Morphological Adaptations <sup>1</sup> (Provide supporting          |
| 6   |              |                |                      | data in Remarks or on a separate sheet)                             |
| 7   |              |                |                      | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)           |
| 3   |              |                |                      |   |
|   |              |                |                      | 1 Indiantana of budyin and unational budying a second               |
| 9   |              |                |                      | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 9<br>10   |              | = Total        |                      | be present, unless disturbed or problematic.                        |
| 9<br>10   |              |                |                      | be present, unless disturbed or problematic.                        |
| 9   | 100          | = Total        | Cover                | be present, unless disturbed or problematic.                        |
| 8<br>9<br>10<br>10<br>Woody Vine Stratum (Plot size:15')<br>1<br>2  | 100          | = Total        | Cover                | be present, unless disturbed or problematic.                        |

Sampling Point: Wet 9

| Profile Des  | cription: (Describ                    | e to the depth  | needed to docu     | ment the i               | ndicator          | or confirm                              | n the absence           | of indicators.)                               |
|--------------|---------------------------------------|-----------------|--------------------|--------------------------|-------------------|---|-------------------------|---|
| Depth        | Matrix                                |                 |                    | ox Features              |                   |   |                         |   |
| (inches)     | Color (moist)                         | %               | Color (moist)      | %                        | Type <sup>1</sup> | Loc <sup>2</sup>                        | Texture                 | Remarks                                       |
| 0-12         | 10YR 4/1                              | 20              | 7.5YR 5/6          | 20                       | С                 | М                                       | SiC                     |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
|              |                                       |                 |                    | _                        |                   |   |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
| 1            |                                       |                 |                    |                          |                   |   |                         |   |
|              | oncentration, D=De                    | pletion, RM=Re  | educed Matrix, C   | S=Covered                | d or Coate        | d Sand G                                |                         | cation: PL=Pore Lining, M=Matrix.             |
| Hydric Soil  |                                       |                 | - ·                |                          |                   |   |                         | for Problematic Hydric Soils <sup>3</sup> :   |
| Histosol     |                                       |                 |                    | Gleyed Ma                |                   |   |                         | Prairie Redox (A16)                           |
|              | pipedon (A2)<br>istic (A3)            |                 |                    | Redox (S5<br>d Matrix (S |                   |   |                         | anganese Masses (F12)<br>(Explain in Remarks) |
|              | en Sulfide (A4)                       |                 |                    | Mucky Mir                |                   |   |                         |   |
|              | d Layers (A5)                         |                 |                    | Gleyed Ma                |                   |   |                         |   |
|              | uck (A10)                             |                 | × Deplete          |                          |                   |   |                         |   |
|              | d Below Dark Surfa                    | ce (A11)        |                    | Dark Surfa               | ,                 |   |                         |   |
| -            | ark Surface (A12)                     | . ,             | Deplete            | ed Dark Su               | rface (F7)        |   | <sup>3</sup> Indicators | of hydrophytic vegetation and                 |
|              | Mucky Mineral (S1)                    |                 | Redox              | Depressio                | ns (F8)           |   | wetland                 | d hydrology must be present,                  |
|              | ucky Peat or Peat (                   | ,               |                    |                          |                   |   | unless                  | disturbed or problematic.                     |
| Restrictive  | Layer (if observed                    | ):              |                    |                          |                   |   |                         |   |
| Туре:        |                                       |                 | _                  |                          |                   |   |                         |   |
| Depth (in    | iches):                               |                 |                    |                          |                   |   | Hydric Soil             | Present? Yes X No                             |
| Remarks:     |                                       |                 |                    |                          |                   |   | •                       |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
| HYDROLO      | GY                                    |                 |                    |                          |                   |   |                         |   |
|              | drology Indicators                    |                 |                    |                          |                   |   |                         |   |
|              | 0,                                    |                 |                    | م با م                   |                   |   | Casarda                 |   |
|              | cators (minimum of                    | one is required |                    |                          |                   |   |                         | ary Indicators (minimum of two required)      |
| X Surface    | · · ·                                 |                 |                    | ained Leav               | . ,               |   |                         | ace Soil Cracks (B6)                          |
|              | ater Table (A2)                       |                 | Aquatic F          |                          |                   |   |                         | nage Patterns (B10)                           |
| X Saturati   | . ,                                   |                 |                    | atic Plants              |                   |   |                         | Season Water Table (C2)                       |
| Water M      | . ,                                   |                 | Hydrogen           |                          |                   | - ·                                     |                         | vfish Burrows (C8)                            |
|              | nt Deposits (B2)                      |                 | Oxidized           |                          |                   | -                                       |                         | uration Visible on Aerial Imagery (C9)        |
|              | posits (B3)                           |                 | Presence           |                          | `                 | ,                                       |                         | nted or Stressed Plants (D1)                  |
|              | at or Crust (B4)                      |                 |                    | on Reducti               |                   | a Solis (Ce                             |                         | morphic Position (D2)                         |
|              | posits (B5)                           |                 |                    | k Surface (              |                   |   | FAC                     | C-Neutral Test (D5)                           |
|              | ion Visible on Aeria                  | •••             | Gauge or           |                          |                   |   |                         |   |
| -            | y Vegetated Conca                     | ve Surface (B8) | ) Other (Ex        | plain in Re              | marks)            |   |                         |   |
| Field Obser  |                                       | N N             |                    |                          | 2                 |   |                         |   |
| Surface Wat  |                                       |                 | Depth (ir          |                          |                   | _                                       |                         |   |
| Water Table  |                                       |                 | Depth (ir          |                          |                   | _                                       |                         |   |
| Saturation P |                                       | Yes 🗙 No        | Depth (ir          | nches):                  | 0                 | _ Wetl                                  | and Hydrolog            | y Present? Yes <u>X</u> No                    |
|              | pillary fringe)<br>corded Data (strea | m aquiao imonit | oring woll agrial  | nhotos pr                |                   | noctions)                               | if available:           |   |
|              | Soluca Dala (Siled                    | n yaaye, muni   | toring wen, actial | priotos, pri             |                   | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
| Remarks:     |                                       |                 |                    |                          |                   |   |                         |   |
|              |                                       |                 |                    |                          |                   |   |                         |   |
| Standing w   | ater                                  |                 |                    |                          |                   |   |                         |   |

|  |                  |                    |   | Reset Form  | n Print F  |
|--|------------------|--------------------|---|---|--|
|  |                  |                    |   | ATTACHME  | NT C   |
| WETLAN   | ND DETERMINAT    | ION DATA F         | ORM – Midwest Re  | gion  |  |
| oject/Site: North Columbus High Pressure Pip   | eline Project    | City/County: Ga    | hannah/Franklin   | Sampling Date   | 12/17/24   |
| oplicant/Owner: <u>Campos EPC</u>  |                  |                    | State: OH   | Sampling Point  | : <u>Up 8</u>  |
| vestigator(s): <u>AAY</u>  |                  | Section, Townsh    | nip, Range: <u>T/N R116W</u>  |   |  |
| ndform (hillslope, terrace, etc.): Sideslope   |                  |                    | I relief (concave, convex,  | none): <u>Convex</u>  |  |
| ope (%): 3-5 Lat: 40.022016°   |                  | Long: -82.9419     | 11°   | Datum: NAD 8  | 3  |
| il Map Unit Name: Alexandria silt loam, 6 to 1   |                  | °                  |   |   |  |
| e climatic / hydrologic conditions on the site ty  |                  |                    |   |   |  |
| e Vegetation, Soil, or Hydrolog  |                  |                    |   |   | × No   |
| e Vegetation, Soil, or Hydrolog  |                  |                    |   |   |  |
|  |                  |                    |   |   | <b>.</b>   |
| UMMARY OF FINDINGS – Attach s  | site map showing | sampling p         | oint locations, trans   | sects, important  | features, etc.   |
| Hydrophytic Vegetation Present? Yes  | No X             | ls the Sa          | mpled Area  |   |  |
| Hydric Soil Present? Yes   | No X             |                    | •   | s No <u>_X</u>  |  |
| Vetland Hydrology Present? Yes   | No ×             | within a           |   |   |  |
| Remarks:   |                  |                    |   |   |  |
| pland woodlands adjacent to Wetland 8  |                  |                    |   |   |  |
|  |                  |                    |   |   |  |
| EGETATION - Use scientific names   | of plants.       |                    |   |   |  |
|  |                  | Dominant Indi      |   | t worksheet:  |  |
| ree Stratum (Plot size: 30')   |                  | <u>Species?</u> St |   |   |  |
| Populus deltoides  | <u> </u>         |                    | FAC That Are OBL, F   | ACW, or FAC:  | 1 (A)  |
| _ <u>Prunus serotina</u><br>_ Acer rubrum  |                  |                    | ACU<br>Total Number of  |   | <b>F</b> (D)   |
|  |                  |                    | -AC Species Across  | All Strata:   | 5 (B)  |
| <br>   |                  |                    | Percent of Domin  |   |  |
|  |                  | = Total Cover      |   | ACW, or FAC: 20   | 0.00 (A/B)   |
| Capling/Shrub Stratum (Plot size: 20'  | )                |                    | Prevalence Inde   |   |  |
| _ Elaeagnus angustifolia   | 40               |                    |   |   | ply by:  |
|  | 40               | Y F                | ACU OBL species   | 0 x 1 =   | 0  |
|  | 40               | · <u> </u>         | ' ' '   |   |  |
| Ligustrum vulgare  | 40               |                    | ACU FACW species  | 0 x 2 =   | 0  |
| Ligustrum vulgare  | 40               |                    | ACU FACW species<br>FAC species   | 0 x 2 =<br>40 x 3 =   | 0<br>120   |
| <u>Ligustrum vulgare</u>   | 40               |                    | ACU FACW species<br>FAC species<br>FACU species   | 0         x 2 =           40         x 3 =           150         x 4 =  | 0<br>120<br>600  |
| Ligustrum vulgare  | 40               |                    | ACU FACW species<br>FAC species<br>FACU species<br>UPL species  | 0         x 2 =           40         x 3 =           150         x 4 =           0         x 5 =  | 0<br>120<br>600<br>0   |
|  | 40               | = Total Cover      | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:  | 0         x 2 =           40         x 3 =           150         x 4 =           0         x 5 =           190         (A)  | 0<br>120<br>600<br>0<br>720 (B)  |
|  |                  | _= Total Cover     | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence  | $\begin{array}{c} 0 & x \ 2 = \\ \hline 40 & x \ 3 = \\ \hline 150 & x \ 4 = \\ \hline 0 & x \ 5 = \\ \hline 190 & (A) \\ \hline e \ Index = B/A = \\ \hline \end{array}$   | 0<br>120<br>600<br>0<br>720 (B)  |
|  | 40<br>           | = Total Cover      | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence  | $ \begin{array}{c} 0 & x 2 = \\ 40 & x 3 = \\ \hline 150 & x 4 = \\ 0 & x 5 = \\ \hline 190 & (A) \\ \hline e Index = B/A = \\ \hline getation Indicators: \\ \end{array} $   | 0<br>120<br>600<br>0<br>720 (B)  |
|  | 40<br>           | _ = Total Cover    | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence<br>Hydrophytic Ve  | $ \begin{array}{c} 0 & x 2 = \\ 40 & x 3 = \\ 150 & x 4 = \\ 0 & x 5 = \\ 190 & (A) \\ e \text{ Index } = B/A = \\ getation Indicators: \\ Test is >50\% \end{array} $  | 0<br>120<br>600<br>0<br>720 (B)  |
| . <u>Ligustrum vulgare</u>   |                  | = Total Cover      | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence<br>Hydrophytic Ve<br>Dominance   | $\begin{array}{c} 0 \\ 40 \\ x 3 = \\ \hline 150 \\ x 4 = \\ \hline 0 \\ x 5 = \\ \hline 190 \\ \end{array}$ e Index = B/A =<br>getation Indicators:<br>Test is >50%<br>Index is <3.0 <sup>1</sup>  | 0<br>120<br>600<br>0<br>720 (B)<br>3.79  |
|  |                  | _ = Total Cover    | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence<br>Hydrophytic Ve<br>Dominance<br>Prevalence<br>Morphologic<br>data in R   | $ \begin{array}{c} 0 & x 2 = \\ 40 & x 3 = \\ \hline 150 & x 4 = \\ 0 & x 5 = \\ \hline 190 & (A) \\ \hline e Index = B/A = \\ \hline getation Indicators: \\ Test is >50\% \end{array} $   | 0<br>120<br>600<br>0<br>720 (B)<br>3.79  |
|  |                  | _ = Total Cover    | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence<br>Hydrophytic Ve<br>Dominance<br>Prevalence<br>Morphologic<br>data in R   | $\begin{array}{c} 0 \\ 40 \\ x 3 = \\ \hline 150 \\ x 4 = \\ \hline 0 \\ x 5 = \\ \hline 190 \\ \hline (A) \\ \hline \end{array}$ e Index = B/A =<br>getation Indicators:<br>Test is >50%<br>Index is <3.0 <sup>1</sup><br>al Adaptations <sup>1</sup> (Provid  | 0<br>120<br>600<br>0<br>720 (B)<br>3.79  |
| Ligustrum vulgare  |                  | = Total Cover      | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence<br>Hydrophytic Ve<br>Dominance<br>Prevalence<br>Morphologic<br>data in R   | $\begin{array}{c} 0 \\ 40 \\ x 3 = \\ 150 \\ x 4 = \\ 0 \\ x 5 = \\ 190 \\ 100 \\ 190 \\ 100 $   | 0<br>120<br>600<br>0<br>720 (B)<br>3.79  |
| Ligustrum vulgare  |                  | _ = Total Cover    | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence<br>Hydrophytic Ve<br>Dominance<br>Prevalence<br>Morphologic<br>data in R<br>Problematic  | $\begin{array}{c} 0 \\ + 0 \\ + 0 \\ + 3 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 190 \\ \hline 190$ | $ \begin{array}{c} 0\\ 120\\ 600\\ 0\\ 720\\ 3.79\\ \hline e supporting te sheet) \\n^1 (Explain) \\ \hline drology must \\ \hline $ |
| 3.       Ligustrum vulgare         4.  |                  | _ = Total Cover    | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence<br>Hydrophytic Ve<br>Dominance<br>Prevalence<br>Morphologic<br>data in R<br>Problematic  | $\begin{array}{c} 0 \\ + 0 \\ + 0 \\ + 3 \\ + 0 \\ + 3 \\ + 150 \\ + 150 \\ + 4 \\ + 1 \\ \hline 0 \\ + 5 \\ + 190 \\ + 100$  | $ \begin{array}{c} 0\\ 120\\ 600\\ 0\\ 720\\ 3.79\\ \hline e supporting te sheet) \\n^1 (Explain) \\ \hline drology must \\ \hline $ |
| 3.       Ligustrum vulgare         4.  |                  | _ = Total Cover    | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence<br>Hydrophytic Ve<br>Dominance<br>Prevalence<br>Morphologic<br>data in R<br>Problematic  | $\begin{array}{c} 0 \\ + 0 \\ + 0 \\ + 3 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 190 \\ \hline 190$ | 0<br>120<br>600<br>0<br>720<br>(B)<br>3.79<br>le supporting<br>te sheet)<br>n <sup>1</sup> (Explain)<br>drology must                 |
| 3.       Ligustrum vulgare         4.  |                  | _ = Total Cover    | ACU FACW species<br>FAC species<br>FACU species<br>UPL species<br>Column Totals:<br>Prevalence<br>Hydrophytic Ve<br>Dominance<br>Prevalence<br>Morphologic<br>data in R<br>Problematic  | $\begin{array}{c} 0 \\ + 0 \\ + 0 \\ + 3 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 190 \\ \hline 190$ | $ \begin{array}{c} 0\\ 120\\ 600\\ 0\\ 720\\ 3.79\\ \hline e supporting te sheet) \\n^1 (Explain) \\ \hline drology must \\ \hline $ |
| 2. Lonicera tatarica         3. Ligustrum vulgare         4.         5.         Herb Stratum         (Plot size:5')         1.         2.         3.         4.         5.         3.         4.         5.         5.         6.         7.         8.         9.         10.         Woody Vine Stratum         (Plot size:15' |                  | = Total Cover      | ACU       FACW species         FAC species       FACU species         UPL species       UPL species         Column Totals:       Prevalence         Prevalence       UPL species         Opminance       Prevalence         Morphologic       data in R         Problematic       1         Indicators of hydrogeneration       1 | $\begin{array}{c} 0 \\ + 0 \\ + 0 \\ + 3 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 190 \\ \hline 190$ | 0<br>120<br>600<br>0<br>720<br>(B)<br>3.79<br>le supporting<br>te sheet)<br>n <sup>1</sup> (Explain)<br>drology must<br>natic.       |

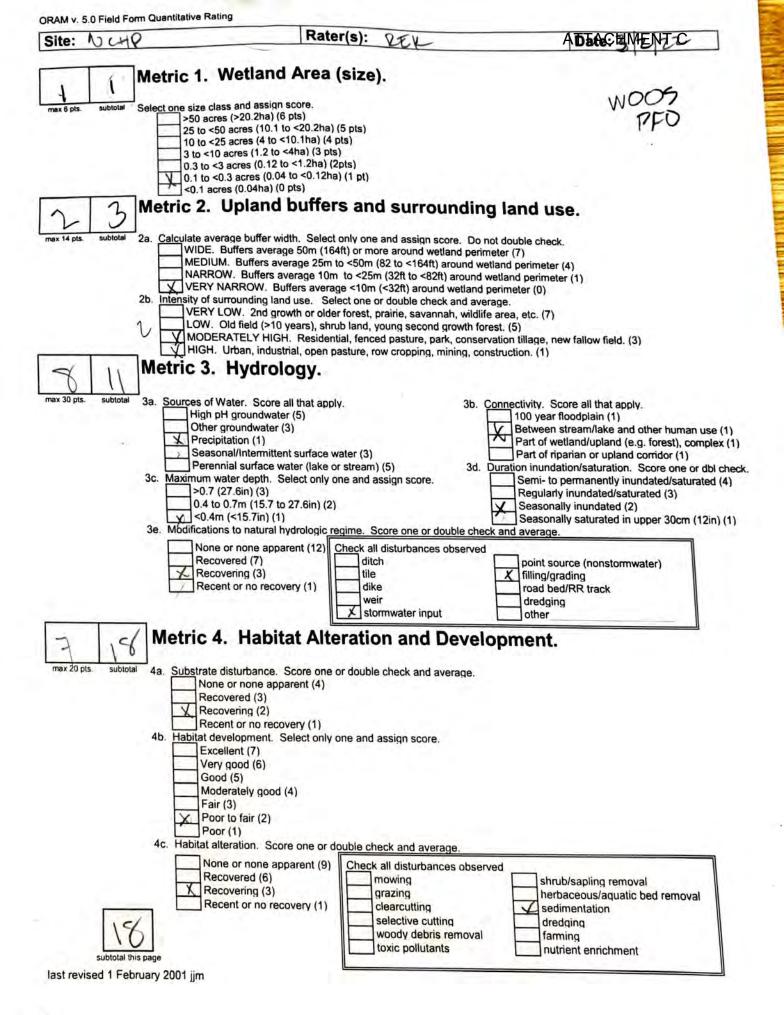
|   |   |   |   |  | irm the absence  |   |
|---|---|---|---|--|--|---|
| Profile Des   | cription: (Describe   | to the dept                                       | h needed to document the i  | ndicator or cont   |  | e of indicators.)   |
| Depth   | Matrix  |   | Redox Features  |  |  |   |
| (inches)  | Color (moist)   | %   | Color (moist) %   | Type <sup>1</sup> Loc <sup>2</sup>   | Texture  | Remarks   |
| 0-6   | 10YR 3/2  | 100   |   |  | SiL  |   |
| 6-15  | 10YR 5/4  | 100   |   |  | SiCL   | Gravelly  |
|   |   |   |   |  |  |   |
|   |   |   |   |  |  |   |
|   |   |   |   |  |  |   |
|   |   |   |   |  |  |   |
|   |   |   |   |  |  |   |
| <br>Type: C=C   | oncentration, D=Depl  | etion, RM=  | Reduced Matrix, CS=Covered  | or Coated Sand   | Grains. <sup>2</sup> Lc  | ocation: PL=Pore Lining, M=Matrix.  |
| ydric Soil  | Indicators:   |   |   |  | Indicators   | s for Problematic Hydric Soils <sup>3</sup> :   |
| Histosol  | (A1)  |   | Sandy Gleyed Ma   | trix (S4)  | Coast  | t Prairie Redox (A16)   |
| Histic E  | oipedon (A2)  |   | Sandy Redox (S5   | )  | Iron-N   | Manganese Masses (F12)  |
| Black H   | stic (A3)   |   | Stripped Matrix (S  | 6)   | Other  | (Explain in Remarks)  |
| Hydroge   | en Sulfide (A4)   |   | Loamy Mucky Mir   | eral (F1)  |  |   |
| Stratifie   | d Layers (A5)   |   | Loamy Gleyed Ma   | ıtrix (F2)   |  |   |
| 2 cm Mi   | ıck (A10)   |   | Depleted Matrix (F  | -3)  |  |   |
| Deplete   | d Below Dark Surface  | e (A11)   | Redox Dark Surfa  | ce (F6)  |  |   |
| Thick Da  | ark Surface (A12)   |   | Depleted Dark Su  | rface (F7)   | <sup>3</sup> Indicator   | s of hydrophytic vegetation and   |
| Sandy M   | lucky Mineral (S1)  |   | Redox Depression  | ns (F8)  | wetlar   | nd hydrology must be present,   |
| E and M   | Joky Doot or Doot (S2   | 1   |   |  | unlos  | s disturbed or problematic.   |
|   | icky Peat or Peat (S3   | <b>)</b>  |   |  | unes   |   |
|   | Layer (if observed):  | <b>)</b>  |   |  | unes   |   |
|   | •   | 5)  |   |  |  |   |
| Restrictive<br>Type:  | •   | •   |   |  |  | Il Present? Yes No <u>X</u>   |
| Restrictive<br>Type:  | Layer (if observed):  | •   |   |  |  |   |
| Restrictive<br>Type:<br>Depth (in   | Layer (if observed):  | •   |   |  |  |   |
| Restrictive<br>Type:<br>Depth (in   | Layer (if observed):  | •   |   |  |  |   |
| Restrictive<br>Type:<br>Depth (in   | Layer (if observed):  | •   |   |  |  |   |
| Restrictive<br>Type:<br>Depth (in   | Layer (if observed):  | •   |   |  |  |   |
| Type:<br>Depth (in<br>Remarks:  | Layer (if observed):  | •   |   |  |  |   |
| Type:<br>Depth (in<br>temarks:  | Layer (if observed):<br>ches):  | •   |   |  |  |   |
| Type:<br>Depth (in<br>Remarks:<br>YDROLO  | Layer (if observed):<br>ches):<br>GY<br>drology Indicators:   |   | ed: check all that apply)   |  | Hydric Soi   | il Present? Yes No <u>X</u>   |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Vetland Hy<br>Primary India  | Layer (if observed):<br>ches):<br>GY<br>drology Indicators:<br>cators (minimum of o   |   | ed; check all that apply)   |  | Hydric Soi   | Il Present? Yes NoX   |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Yetland Hy<br>Primary India<br>Surface   | Layer (if observed):<br>ches):  |   | Water-Stained Leave   | ( )  | Hydric Soi   | Il Present? Yes NoX   |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Yetland Hy<br>Primary India<br>Surface<br>High Wa  | Layer (if observed):<br>ches):  |   | Water-Stained Leave<br>Aquatic Fauna (B13)  |  | Hydric Soi   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)   |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Yetland Hy<br>Primary India<br>Surface<br>High Wa<br>Saturati  | Ches):  |   | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants   | (B14)  | Hydric Soi   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)  |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Yetland Hy<br>Primary India<br>Surface<br>High Wa<br>Saturati<br>Saturati<br>Water M   | Ches):<br>Ches):<br>GY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ater Table (A2)<br>on (A3)<br>larks (B1)   |   | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oc  | (B14)<br>lor (C1)  | Hydric Soi   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)   |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Yetland Hy<br>Primary India<br>Surface<br>High Wa<br>Saturati<br>Saturati<br>Water M   | Ches):  |   | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants   | (B14)<br>lor (C1)  | Hydric Soi   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)  |
|   | GY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ater Table (A2)<br>on (A3)<br>larks (B1)<br>nt Deposits (B2)   |   | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oc  | (B14)<br>lor (C1)<br>res on Living Roo   | Hydric Soi<br>Hydric Soi<br>Second<br>Sui<br>Dra<br>Dra<br>Lory<br>Lory<br>Sat                             | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)   |
|   | GY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ater Table (A2)<br>on (A3)<br>larks (B1)<br>nt Deposits (B2)   |   | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oc<br>Oxidized Rhizosphe  | (B14)<br>lor (C1)<br>res on Living Roo<br>d Iron (C4)  | Hydric Soi            Second            Sun            Dra            Dra            Cra           ts (C3) | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imagery (C9)  |
|   | GY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ater Table (A2)<br>on (A3)<br>larks (B1)<br>nt Deposits (B2)<br>posits (B3)  |   | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oo<br>Oxidized Rhizosphe<br>Presence of Reduce  | (B14)<br>lor (C1)<br>res on Living Roo<br>d Iron (C4)<br>on in Tilled Soils (                          | Hydric Soi            Second   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imagery (C9)<br>unted or Stressed Plants (D1)                           |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Yetland Hy<br>Primary India<br>Saturati<br>Saturati<br>Saturati<br>Water M<br>Sedimea<br>Sedimea<br>Drift Dea<br>Algal Ma<br>Iron Dea  | Ches):  | ne is require                                     | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oc<br>Oxidized Rhizosphe<br>Presence of Reduce<br>Recent Iron Reductio<br>Thin Muck Surface (   | (B14)<br>lor (C1)<br>res on Living Roo<br>d Iron (C4)<br>on in Tilled Soils (<br>C7)                   | Hydric Soi            Second   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imagery (C9)<br>unted or Stressed Plants (D1)<br>omorphic Position (D2) |
|   | GY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ater Table (A2)<br>on (A3)<br>larks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)   | ne is require<br>magery (B7                       | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oc<br>Oxidized Rhizosphe<br>Presence of Reduce<br>Recent Iron Reductio<br>Thin Muck Surface (<br>Gauge or Well Data                             | (B14)<br>lor (C1)<br>res on Living Roo<br>d Iron (C4)<br>on in Tilled Soils (<br>C7)<br>(D9)           | Hydric Soi            Second   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imagery (C9)<br>unted or Stressed Plants (D1)<br>omorphic Position (D2) |
|   | Ches):  | ne is require<br>magery (B7                       | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oc<br>Oxidized Rhizosphe<br>Presence of Reduce<br>Recent Iron Reductio<br>Thin Muck Surface (<br>Gauge or Well Data                             | (B14)<br>lor (C1)<br>res on Living Roo<br>d Iron (C4)<br>on in Tilled Soils (<br>C7)<br>(D9)           | Hydric Soi            Second   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imagery (C9)<br>unted or Stressed Plants (D1)<br>omorphic Position (D2) |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Vetland Hy<br>Primary India<br>Control (International<br>Surface<br>High Water M<br>Saturati<br>Water M<br>Saturati<br>Drift De<br>Algal Ma<br>Iron Dep<br>Inundati<br>Sparsel | GY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ater Table (A2)<br>on (A3)<br>larks (B1)<br>nt Deposits (B2)<br>posits (B3)<br>at or Crust (B4)<br>posits (B5)<br>on Visible on Aerial In<br>y Vegetated Concave<br>vations: | ne is require<br>magery (B7                       | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oc<br>Oxidized Rhizosphe<br>Presence of Reduce<br>Recent Iron Reductio<br>Thin Muck Surface (<br>Gauge or Well Data                             | (B14)<br>lor (C1)<br>res on Living Roo<br>d Iron (C4)<br>on in Tilled Soils (<br>C7)<br>(D9)<br>marks) | Hydric Soi            Second   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imagery (C9)<br>unted or Stressed Plants (D1)<br>omorphic Position (D2) |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Vetland Hy<br>Primary India<br>Control (International<br>Surface<br>High Water M<br>Saturati<br>Water M<br>Saturati<br>Drift De<br>Algal Ma<br>Iron Dep<br>Inundati<br>Sparsel | Layer (if observed):         ches):   | ne is require<br>magery (B7<br>Surface (B<br>es N | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oc<br>Oxidized Rhizospher<br>Presence of Reduce<br>Recent Iron Reductio<br>Thin Muck Surface (<br>Gauge or Well Data<br>8) Other (Explain in Re | (B14)<br>lor (C1)<br>res on Living Roo<br>d Iron (C4)<br>on in Tilled Soils (<br>C7)<br>(D9)<br>marks) | Hydric Soi            Second   | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imagery (C9)<br>unted or Stressed Plants (D1)<br>omorphic Position (D2) |
| Restrictive<br>Type:<br>Depth (in<br>Remarks:<br>YDROLO<br>Yetland Hy<br>Primary India<br>Surface<br>High Wa<br>Saturati<br>Saturati<br>Water M<br>Sedimen<br>Sedimen<br>Inundati<br>Sparsel<br>Surface Water                             | Layer (if observed):         ches):   | magery (B7<br>Surface (B<br>es N<br>es N          | Water-Stained Leave<br>Aquatic Fauna (B13)<br>True Aquatic Plants<br>Hydrogen Sulfide Oc<br>Oxidized Rhizosphe<br>Presence of Reduce<br>Recent Iron Reductio<br>Thin Muck Surface (<br>Gauge or Well Data<br>8) Other (Explain in Re  | (B14)<br>lor (C1)<br>res on Living Roo<br>d Iron (C4)<br>on in Tilled Soils (<br>C7)<br>(D9)<br>marks) | Hydric Soi<br>Second<br>Sui<br>Dra<br>Dra<br>Cra<br>ts (C3) Sai<br>Stu<br>C6) Ge<br>FA                     | Il Present? Yes NoX<br>lary Indicators (minimum of two require<br>rface Soil Cracks (B6)<br>ainage Patterns (B10)<br>y-Season Water Table (C2)<br>ayfish Burrows (C8)<br>turation Visible on Aerial Imagery (C9)<br>unted or Stressed Plants (D1)<br>omorphic Position (D2) |

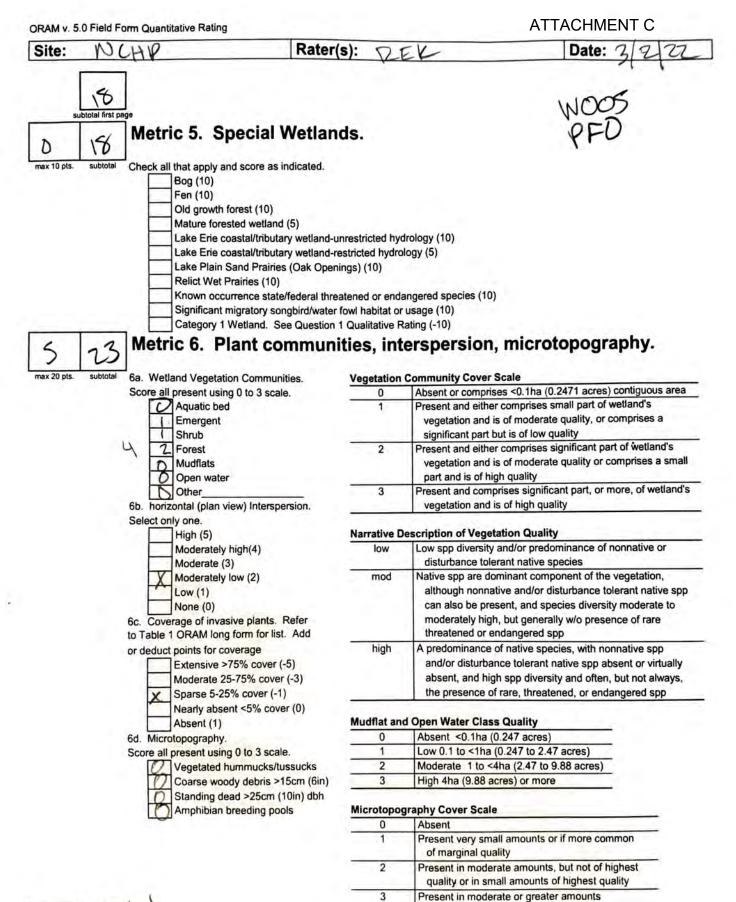
Remarks:

|  |                 |                   |               | Reset Form Print F   |
|--|-----------------|-------------------|---------------|--|
|  | DETERMINA.      | ΓΙΟΝ DΔ           |               | ATTACHMENT C   |
|  |                 |                   |               | h/Franklin Sampling Date: 12/17/24   |
| ·  |                 | -                 | -             |  |
|  |                 |                   |               | State: Sampling Point: <u>Up 9</u>   |
| vestigator(s): <u>AAY</u>                                    |                 |                   |               | -  |
|  |                 |                   |               | (concave, convex, none): <u>Convex</u>   |
|  |                 |                   |               | Datum: NAD 83  |
|  |                 |                   |               | NWI or WWI classification: <u>NA</u>   |
| e climatic / hydrologic conditions on the site typical       | -               |                   |               |  |
| e Vegetation, Soil, or Hydrology                             | significantly   | y disturbed       | ? Are         | "Normal Circumstances" present? Yes X No   |
| e Vegetation, Soil, or Hydrology                             | naturally p     | oblematic?        | ? (If ne      | eeded, explain any answers in Remarks.)  |
| JMMARY OF FINDINGS – Attach site                             | map showin      | g sampl           | ing point l   | locations, transects, important features, etc.   |
|  |                 |                   |               |  |
|  | No X<br>No X    | 15                | the Sampled   |  |
|  | No X            | wi                | ithin a Wetla | nd? Yes NoX  |
| Remarks:   |                 |                   |               |  |
| pland maintained lawn/early successional veg                 | adjacent to Wet | land 9            |               |  |
| EGETATION – Use scientific names of p                        | lants.          |                   |               |  |
|  |                 |                   | nt Indicator  | Dominance Test worksheet:  |
| r <u>ee Stratum</u> (Plot size: <u>30'</u> )                 |                 |                   | <u>Status</u> | Number of Dominant Species           That Are OBL, FACW, or FAC:         0         (A)   |
|  |                 |                   |               | That Are OBL, FACW, or FAC: (A)  |
|  |                 |                   |               | Total Number of Dominant       Species Across All Strata:       2       (B)  |
|  |                 |                   |               |  |
|  |                 |                   |               | Percent of Dominant Species<br>That Are OBL, FACW, or FAC:0 (A/B)  |
|  |                 | _ = Total C       | Cover         |  |
| Purus callenana (Plot size: 15'                              |                 | v                 | NII           | Prevalence Index worksheet:  |
| Pyrus calleryana   | 20              |                   | NI            | Total % Cover of:         Multiply by:           OBL species         0         x 1 =         0   |
|  |                 |                   |               | FACW species $0 \times 2 = 0$  |
|  |                 |                   |               | FAC species $0 \times 3 = 0$   |
|  |                 |                   |               | FACU species 100 $x 4 = 400$   |
|  | 20              | = Total C         | Cover         | UPL species x 5 =0   |
| erb Stratum (Plot size: 5')                                  |                 |                   |               | Column Totals: <u>100</u> (A) <u>400</u> (B)   |
| Schedonorus arundinaceus                                     | 90              | _ <u>Y</u>        | FACU          | Prevalence Index = $B/A = 4.00$  |
| Trifolium repens   |                 | N                 | FACU          | Prevalence Index = B/A =<br>Hydrophytic Vegetation Indicators:   |
|  |                 |                   |               | Dominance Test is >50%   |
| ·  |                 |                   |               | Prevalence Index is $≤3.0^1$   |
|  |                 |                   |               | Morphological Adaptations <sup>1</sup> (Provide supporting   |
|  |                 |                   |               |  |
|  |                 |                   |               | data in Remarks or on a separate sheet)  |
|  |                 |                   |               | <ul> <li> Morphological Adaptations (in Voide Supporting<br/>data in Remarks or on a separate sheet)</li> <li> Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>   |
|  |                 |                   |               | data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
|  |                 |                   |               | data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
|  |                 |                   |               | data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| <br><br><br>0<br>Voody Vine Stratum (Plot size:15'           |                 | <br>= Total C     |               | data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.             |
| <br><br>0<br>Voody Vine Stratum (Plot size:15'               |                 | <br><br>= Total C |               | data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation   |
| <br><br><br>0<br>0<br>0<br>Voody Vine Stratum (Plot size:15' |                 | <br><br>= Total C |               | data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic |

| Sampling | Point: | Up 9 |
|----------|--------|------|
|          |        |      |

| Profile Descri   | intion: (Describe  | to the dept   | h needed to document the indicator  | or confirm tl    | he absence of indicato  | rs.)   |
|--|--|---|---|------------------|---|--|
|  |  |   |   |                  |   |  |
| Depth  | Matrix   |   | Redox Features  |                  |   |  |
| (inches)   | Color (moist)  | %   | Color (moist) % Type <sup>1</sup>   | Loc <sup>2</sup> | Texture   | Remarks  |
| 0-6  | 10YR 3/3   | 100   |   |                  | SiL   |  |
| 6-12   | 10YR 5/6   | 100   |   |                  | CL  |  |
|  |  |   |   |                  |   |  |
|  |  |   |   |                  |   |  |
|  |  |   |   |                  |   |  |
|  |  |   |   |                  |   |  |
|  |  |   |   |                  |   |  |
|  |  |   |   |                  |   |  |
| Type: C=Con  | ncentration, D=Dep   | pletion, RM=  | Reduced Matrix, CS=Covered or Coate   | d Sand Grair     | ns. <sup>2</sup> Location: PL=  | Pore Lining, M=Matrix.   |
| lydric Soil In   | dicators:  |   |   |                  | Indicators for Probler  | natic Hydric Soils <sup>3</sup> :  |
| Histosol (A  | 41)  |   | Sandy Gleyed Matrix (S4)  |                  | Coast Prairie Rede  |  |
|  | bedon (A2)   |   | Sandy Redox (S5)  |                  | Iron-Manganese M  |  |
| Black Hist   |  |   | Stripped Matrix (S6)  |                  | Other (Explain in F   | Remarks)   |
|  | Sulfide (A4)   |   | Loamy Mucky Mineral (F1)  |                  |   |  |
| 2 cm Mucl  | Layers (A5)<br>k (A10)   |   | Loamy Gleyed Matrix (F2)  |                  |   |  |
|  | Below Dark Surfac  | ce (A11)  | Redox Dark Surface (F6)   |                  |   |  |
|  | k Surface (A12)  | ,   | Depleted Dark Surface (F7)  |                  | <sup>3</sup> Indicators of hydroph  | ytic vegetation and  |
| Sandy Mu   | icky Mineral (S1)  |   | Redox Depressions (F8)  |                  | wetland hydrology   |  |
| 5 cm Mucl  | ky Peat or Peat (S   | 3)  |   |                  | unless disturbed o  | r problematic.   |
|  |  |   |   |                  |   |  |
|  | ayer (if observed)   | :   |   |                  |   |  |
|  | ayer (if observed)   | :   |   |                  |   |  |
| Restrictive La   | ayer (if observed)<br>nes):  |   |   |                  | Hydric Soil Present?  | Yes No _X_   |
| Restrictive La<br>Type:<br>Depth (inch<br>Remarks:   | nes):  |   |   |                  | Hydric Soil Present?  | Yes No _X  |
| Restrictive La<br>Type:<br>Depth (inch<br>Remarks:   | nes):  |   |   |                  | Hydric Soil Present?  | Yes <u>No X</u>  |
| Restrictive La<br>Type:<br>Depth (inch<br>Remarks:<br>YDROLOG<br>Vetland Hydr  | nes):<br>SY<br>rology Indicators:  |   |   |                  |   |  |
| Restrictive La<br>Type:<br>Depth (inch<br>Remarks:<br>YDROLOG<br>Vetland Hydr<br>Primary Indica  | rology Indicators:<br>tors (minimum of c   |   | ed; check all that apply)   |                  | Secondary Indicator   | s (minimum of two required   |
|  | es):<br>SY<br>rology Indicators:<br>tors (minimum of o<br>/ater (A1)   |   | Water-Stained Leaves (B9)   |                  | _ <u>Secondary Indicator</u><br>Surface Soil Cra  | <u>s (minimum of two required</u><br>acks (B6)   |
| Restrictive La<br>Type:<br>Depth (inch<br>Remarks:<br>YDROLOG<br>Yetland Hydr<br>Primary Indica<br>Surface W<br>High Wate  | itors (minimum of of<br>/ater (A1)<br>er Table (A2)  |   | Water-Stained Leaves (B9)<br>Aquatic Fauna (B13)  |                  | <u>Secondary Indicator</u><br>Surface Soil Cra<br>Drainage Patter   | s (minimum of two required<br>acks (B6)<br>ns (B10)  |
|  | Tology Indicators<br>tors (minimum of of<br>vater (A1)<br>er Table (A2)<br>h (A3)  |   | Water-Stained Leaves (B9)<br>Aquatic Fauna (B13)<br>True Aquatic Plants (B14)   |                  | _ <u>Secondary Indicator</u><br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa  | s (minimum of two required<br>acks (B6)<br>ns (B10)<br>ter Table (C2)  |
|  | Thes):   |   | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)  |                  | _ <u>Secondary Indicator</u><br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow   | s (minimum of two required<br>acks (B6)<br>ns (B10)<br>ter Table (C2)<br>/s (C8)   |
|  | rology Indicators<br>tors (minimum of of<br>vater (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)   |   | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv   | ing Roots (C3    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> </ul>   | s (minimum of two required<br>acks (B6)<br>ns (B10)<br>ter Table (C2)<br>/s (C8)<br>le on Aerial Imagery (C9)  |
| Setrictive La     Type:     Depth (inch     Cemarks:   | res):<br>rology Indicators:<br>tors (minimum of of<br>/ater (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)   |   | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4  | ing Roots (C:    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> <li>Stunted or Strest</li> </ul>  | s (minimum of two required<br>acks (B6)<br>ns (B10)<br>ter Table (C2)<br><i>r</i> s (C8)<br>le on Aerial Imagery (C9)<br>ssed Plants (D1)                    |
| Comparison of the sector | rology Indicators<br>tors (minimum of of<br>/ater (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)  |   | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled  | ing Roots (C:    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> <li>Stunted or Stres</li> <li>Geomorphic Po</li> </ul>                          | s (minimum of two required<br>acks (B6)<br>ms (B10)<br>ter Table (C2)<br>/s (C8)<br>le on Aerial Imagery (C9)<br>ssed Plants (D1)<br>sition (D2)             |
|  | itors (minimum of of<br>/ater (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)<br>psits (B3)<br>or Crust (B4)<br>sits (B5)   | :<br>one is require                                     | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Thin Muck Surface (C7)   | ing Roots (C:    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> <li>Stunted or Strest</li> </ul>  | s (minimum of two require<br>acks (B6)<br>ns (B10)<br>ter Table (C2)<br>/s (C8)<br>le on Aerial Imagery (C9)<br>ssed Plants (D1)<br>sition (D2)              |
| Eestrictive La     Type:     Depth (inch     temarks:      //DROLOG     //etland Hydr     rimary Indica     Surface W     High Wate     Saturation     Water Mar     Sediment     Drift Depo     Algal Mat     Iron Depos     Inundation   | Trology Indicators<br>tors (minimum of of<br>vater (A1)<br>er Table (A2)<br>(A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sits (B5)<br>n Visible on Aerial   | :<br>one is require<br>Imagery (B7                      | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9)   | ing Roots (C:    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> <li>Stunted or Stres</li> <li>Geomorphic Po</li> </ul>                          | s (minimum of two required<br>acks (B6)<br>ms (B10)<br>ter Table (C2)<br>/s (C8)<br>le on Aerial Imagery (C9)<br>ssed Plants (D1)<br>sition (D2)             |
|  | res):<br>rology Indicators:<br>tors (minimum of of<br>/ater (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sits (B5)<br>n Visible on Aerial<br>/egetated Concav                                      | :<br>one is require<br>Imagery (B7                      | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9)   | ing Roots (C:    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> <li>Stunted or Stres</li> <li>Geomorphic Po</li> </ul>                          | s (minimum of two required<br>acks (B6)<br>ns (B10)<br>ter Table (C2)<br>/s (C8)<br>le on Aerial Imagery (C9)<br>ssed Plants (D1)<br>sition (D2)             |
| Restrictive La<br>Type:<br>Depth (inch<br>Remarks:<br>YDROLOG<br>Yetland Hydr<br>Primary Indica<br>Surface W<br>High Wate<br>Saturation<br>Water Mar<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depos<br>Inundation<br>Sparsely V<br>Field Observa   | Prology Indicators:<br>tors (minimum of of<br>vater (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sits (B5)<br>n Visible on Aerial<br>vegetated Concav<br>ations:                                   | :<br>one is require<br>Imagery (B7<br>'e Surface (B     | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9)   | ing Roots (C3    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> <li>Stunted or Stres</li> <li>Geomorphic Po</li> </ul>                          | s (minimum of two required<br>acks (B6)<br>ns (B10)<br>ter Table (C2)<br>/s (C8)<br>le on Aerial Imagery (C9)<br>ssed Plants (D1)<br>sition (D2)             |
| Restrictive La<br>Type:<br>Depth (inch<br>Remarks:<br>YDROLOG<br>Yetland Hydr<br>Primary Indica<br>Surface W<br>High Wate<br>Saturation<br>Water Mar<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depos<br>Inundation  | nes):<br>Fology Indicators:<br>tors (minimum of of<br>/ater (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sits (B5)<br>n Visible on Aerial<br>/egetated Concav<br>ations:<br>Present?               | Imagery (B7<br>e Surface (B                             | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tillee Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)  | ing Roots (C3    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> <li>Stunted or Stres</li> <li>Geomorphic Po</li> </ul>                          | s (minimum of two required<br>acks (B6)<br>ns (B10)<br>ter Table (C2)<br>/s (C8)<br>le on Aerial Imagery (C9)<br>ssed Plants (D1)<br>sition (D2)             |
| Restrictive La<br>Type:<br>Depth (inch<br>Remarks:<br>YDROLOG<br>YDROLOG<br>Vetland Hydr<br>Primary Indica<br>Surface W<br>High Wate<br>Saturation<br>Water Mar<br>Sediment<br>Drift Depo<br>Algal Mat<br>Iron Depos<br>Inundation<br>Sparsely V<br>Field Observa<br>Surface Water<br>Vater Table P  | Thesent?   | Imagery (B7<br>re Surface (B<br>res N<br>res N          | Water-Stained Leaves (B9)     Aquatic Fauna (B13)     True Aquatic Plants (B14)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres on Liv     Presence of Reduced Iron (C4     Recent Iron Reduction in Tilled     Thin Muck Surface (C7)     Gauge or Well Data (D9) 8)     Other (Explain in Remarks) | ing Roots (C3    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> <li>Stunted or Stress</li> <li>Geomorphic Po</li> <li>FAC-Neutral Te</li> </ul> | s (minimum of two required<br>acks (B6)<br>ns (B10)<br>tter Table (C2)<br>/s (C8)<br>le on Aerial Imagery (C9)<br>ssed Plants (D1)<br>sition (D2)<br>st (D5) |
| Restrictive La<br>Type:<br>Depth (inch<br>Remarks:<br>YDROLOG<br>YDROLOG<br>Vetland Hydr<br>Primary Indica<br>Surface W<br>High Wate<br>Saturation<br>Water Mar<br>Sediment<br>Drift Depo<br>Algal Mat<br>Sediment<br>Drift Depo<br>Algal Mat<br>Serface Water<br>Sparsely V<br>Field Observa<br>Surface Water<br>Vater Table P<br>Saturation Pre-<br>includes capil   | Fology Indicators<br>tors (minimum of of<br>/ater (A1)<br>er Table (A2)<br>(A3)<br>rks (B1)<br>Deposits (B2)<br>visits (B3)<br>or Crust (B4)<br>sits (B5)<br>n Visible on Aerial<br>Vegetated Concav<br>ations:<br>Present?<br>Sent?<br>Mary fringe) | Imagery (B7<br>re Surface (B<br>res N<br>res N<br>res N | Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tillee Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)  | ing Roots (C3    | <ul> <li><u>Secondary Indicator</u></li> <li>Surface Soil Cra</li> <li>Drainage Patter</li> <li>Dry-Season Wa</li> <li>Crayfish Burrow</li> <li>Saturation Visib</li> <li>Stunted or Stress</li> <li>Geomorphic Po</li> <li>FAC-Neutral Te</li> </ul> | s (minimum of two required<br>acks (B6)<br>ns (B10)<br>ter Table (C2)<br>/s (C8)<br>le on Aerial Imagery (C9)<br>ssed Plants (D1)<br>sition (D2)             |

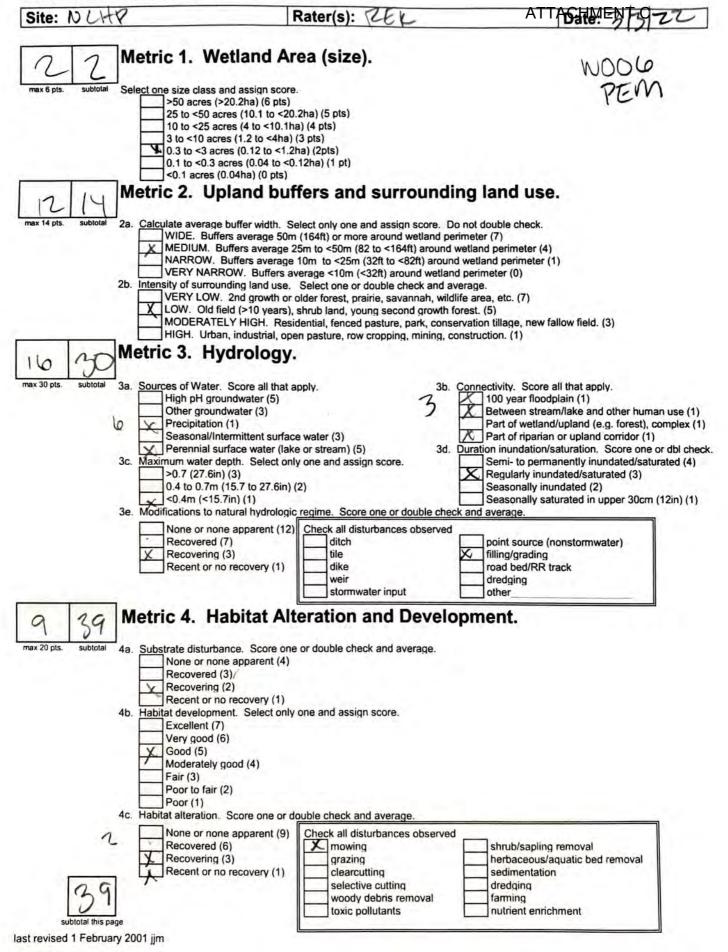


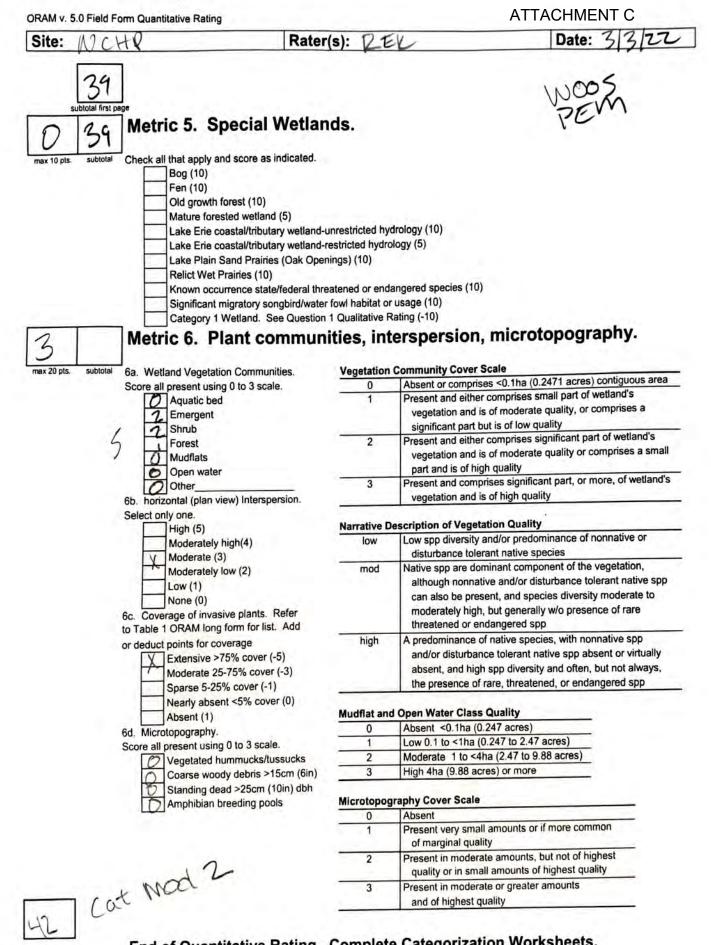


23 Cat 1

End of Quantitative Rating. Complete Categorization Worksheets.

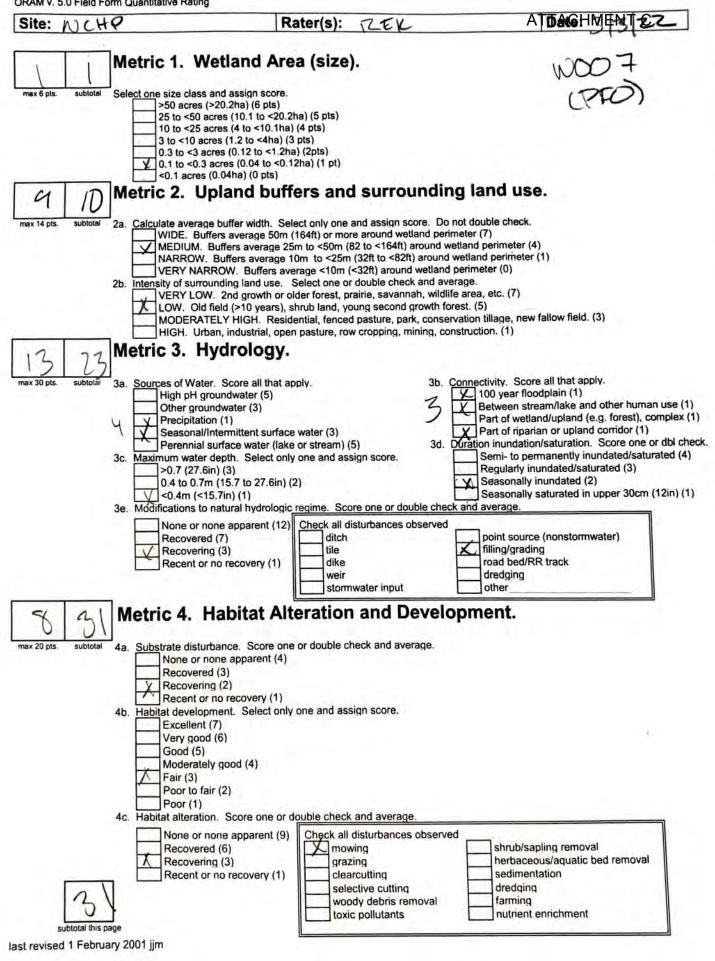
and of highest quality

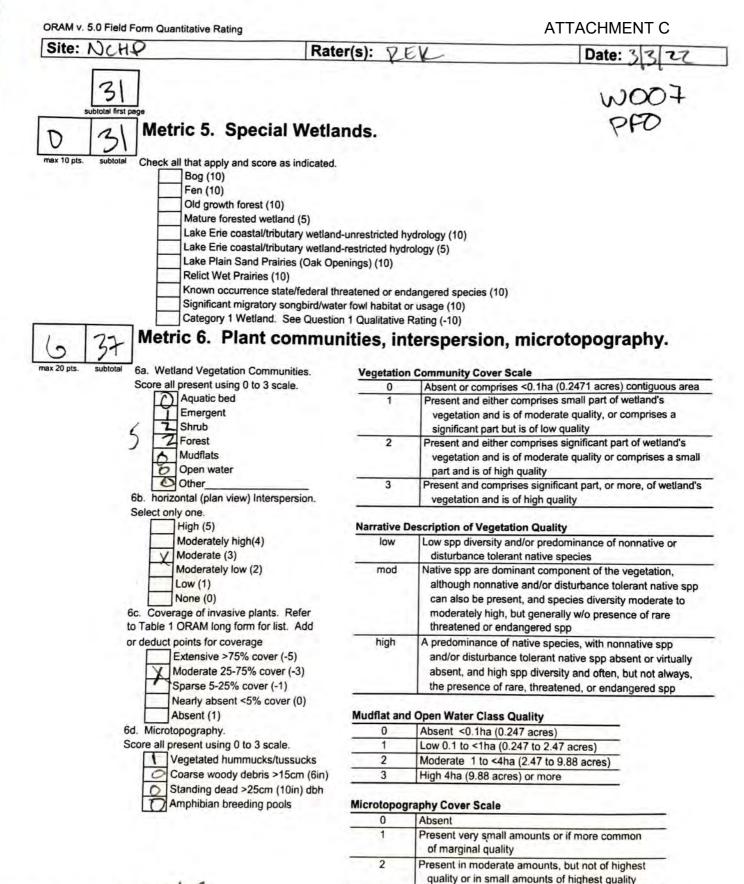




End of Quantitative Rating. Complete Categorization Worksheets.

and of highest quality





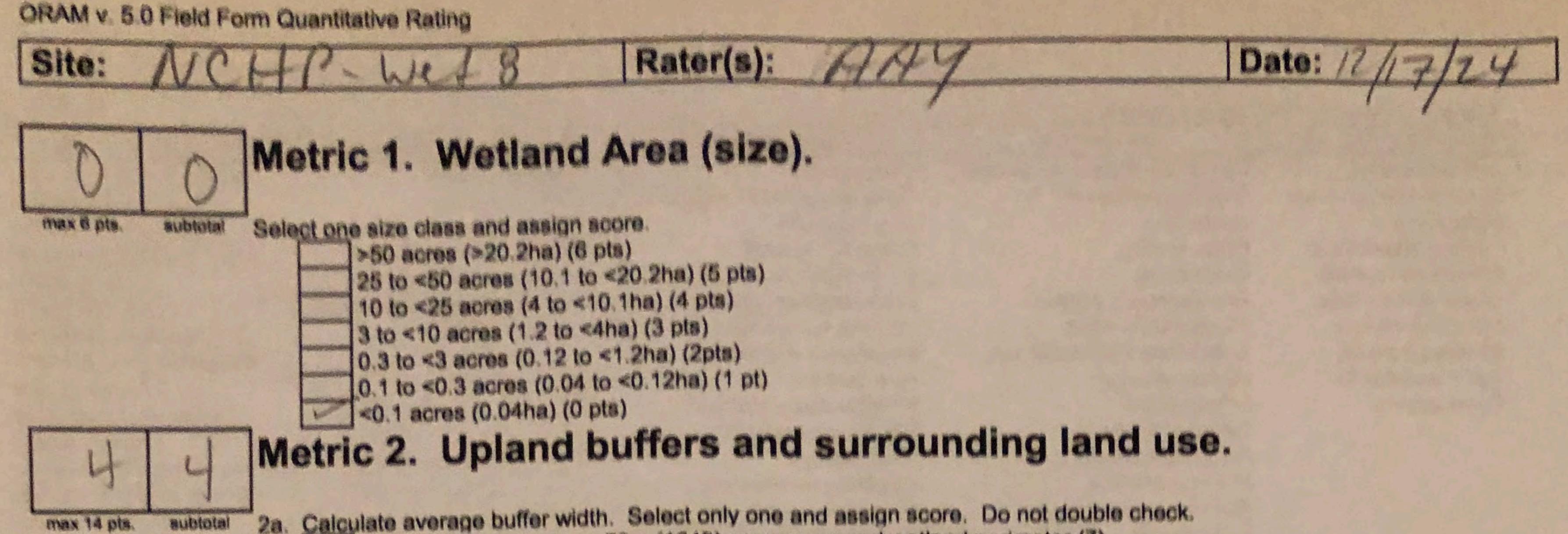
F Lat mod 2.

End of Quantitative Rating. Complete Categorization Worksheets.

3

Present in moderate or greater amounts

and of highest quality



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 fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology.

 aubtotal
 3a.
 Sources of Water. Score all that apply.

 High pH groundwater (5)
 Other groundwater (3)

 Precipitation (1)
 Seasonal/Intermittent surface water (3)

 Perennial surface water (lake or stream) (5)

 3c.
 Maximum water depth. Select only one and assign score.

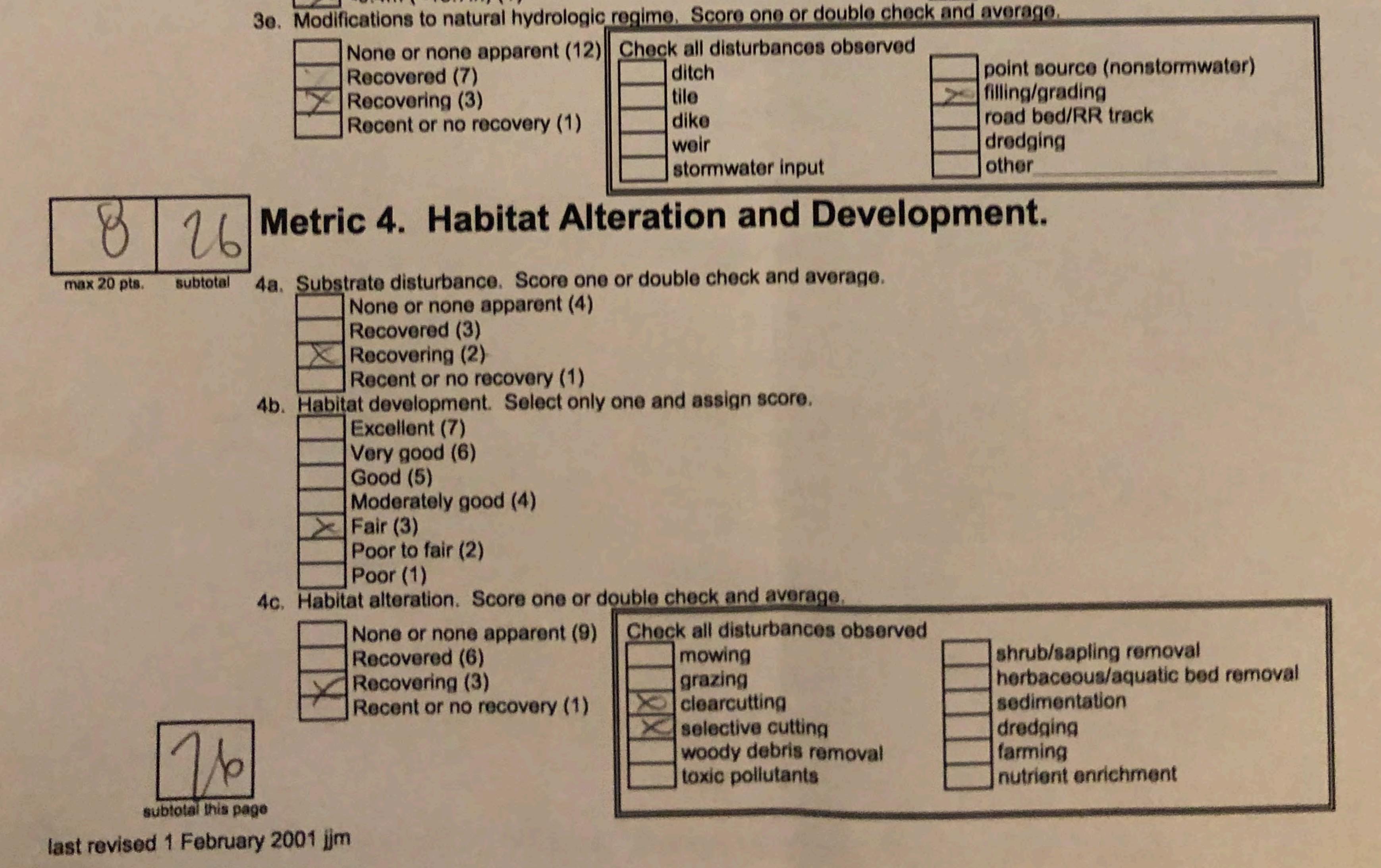
 >0.7 (27.6in) (3)

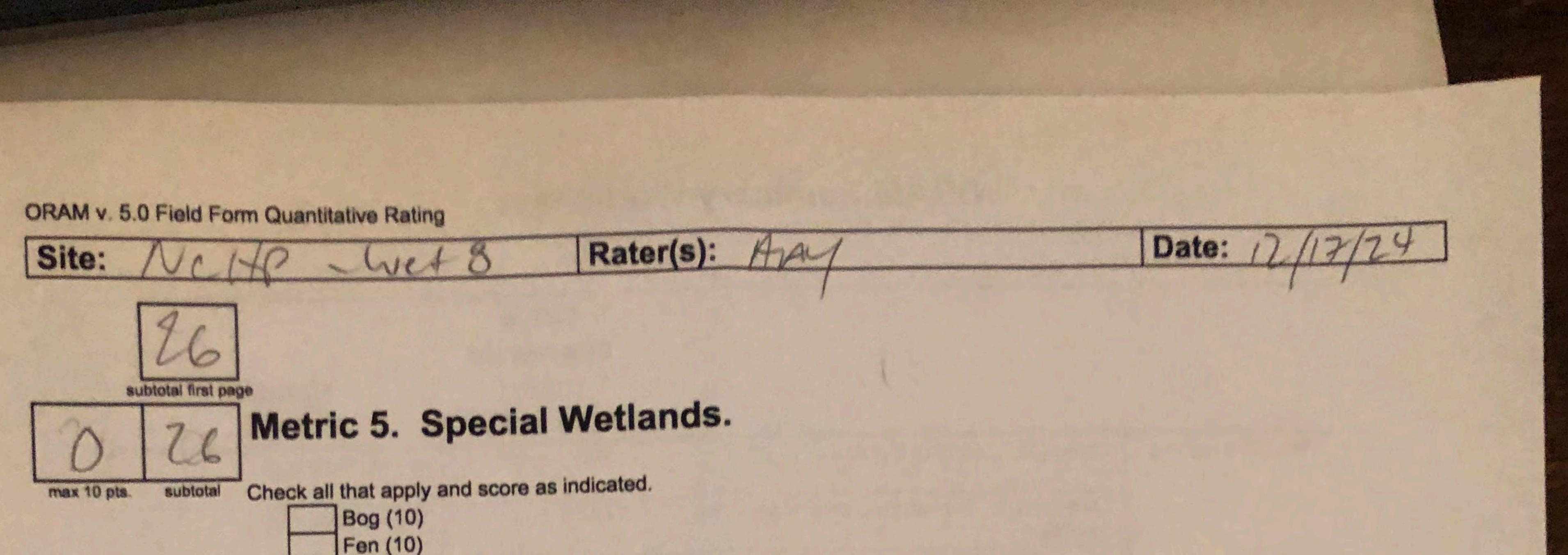
 0.4 to 0.7m (15.7 to 27.6in) (2)

 <0.4m (<15.7in) (1)</td>

max 30 pts.

3b. Connectivity. Score all that apply.
100 year floodplain (1)
Between stream/lake and other human use (1)
Part of wetland/upland (e.g. forest), complex (1)
Part of riparian or upland corridor (1)
3d. Duration inundation/saturation. Score one or dbl check.
Semi- to permanently inundated/saturated (4)
Regularly inundated/saturated (3)
Seasonally inundated (2)
Seasonally saturated in upper 30cm (12in) (1)





Old growth forest (10)
Mature forested wetland (5)
Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
Lake Erie coastal/tributary wetland-restricted hydrology (5)
Lake Plain Sand Prairies (Oak Openings) (10)
Relict Wet Prairies (10)
Known occurrence state/federal threatened or endangered species (10)
Significant migratory songbird/water fowl habitat or usage (10)
Category 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersion, microtopography.

3

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   |
| O Aquatic bed<br>Emergent                   | 1          | Present and either comprises small part of wetland's<br>vegetation and is of moderate quality, or comprises a<br>significant part but is of low quality |
| Shrub<br>Forest<br>O Mudflats<br>Open water | 2          | Present and either comprises significant part of wetland's<br>vegetation and is of moderate quality or comprises a small<br>part and is of high quality |

Other\_\_\_\_\_

6b. horizontal (plan view) Interspersion.

Select only one. High (5) Moderately high(4)

> Moderate (3) Moderately low (2)

× Low (1) None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1)

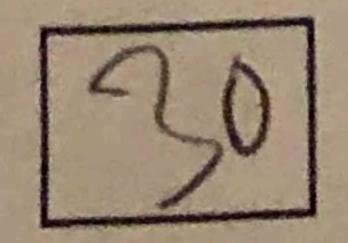
6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Present and comprises significant part, or more, of wetland's vegetation and is of high quality

| low  | Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  |
|------|--|
| mod  | Native spp are dominant component of the vegetation,<br>although nonnative and/or disturbance tolerant native spp<br>can also be present, and species diversity moderate to<br>moderately high, but generally w/o presence of rare<br>threatened or endangered spp |
| high | A predominance of native species, with nonnative spp<br>and/or disturbance tolerant native spp absent or virtually<br>absent, and high spp diversity and often, but not always,<br>the presence of rare, threatened, or endangered spp                             |

| Mudflat an | d Open Water Class Quality              |
|------------|---|
| 0          | Absent <0.1ha (0.247 acres)             |
|            | Low 0.1 to <1ha (0.247 to 2.47 acres)   |
|            | Moderate 1 to <4ha (2.47 to 9.88 acres) |
| 3          | High 4ha (9.88 acres) or more           |

Microtopography Cover Scale

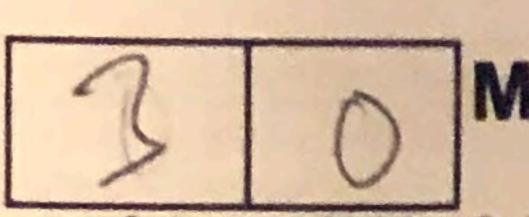
| 0 | Absent  |
|---|---|
| 1 | Present very small amounts or if more common of marginal quality                                  |
| 2 | Present in moderate amounts, but not of highest<br>guality or in small amounts of highest quality |
| 3 | Present in moderate or greater amounts<br>and of highest quality                                  |



8

End of Quantitative Rating. Complete Categorization Worksheets.

# ORAM v. 5.0 Field Form Quantitative Rating



Metric 1. Wetland Area (size).

Rater(s):

max 6 pts. subtotal

Site:

 Select one size class and assign score.

 >50 acres (>20.2ha) (6 pts)

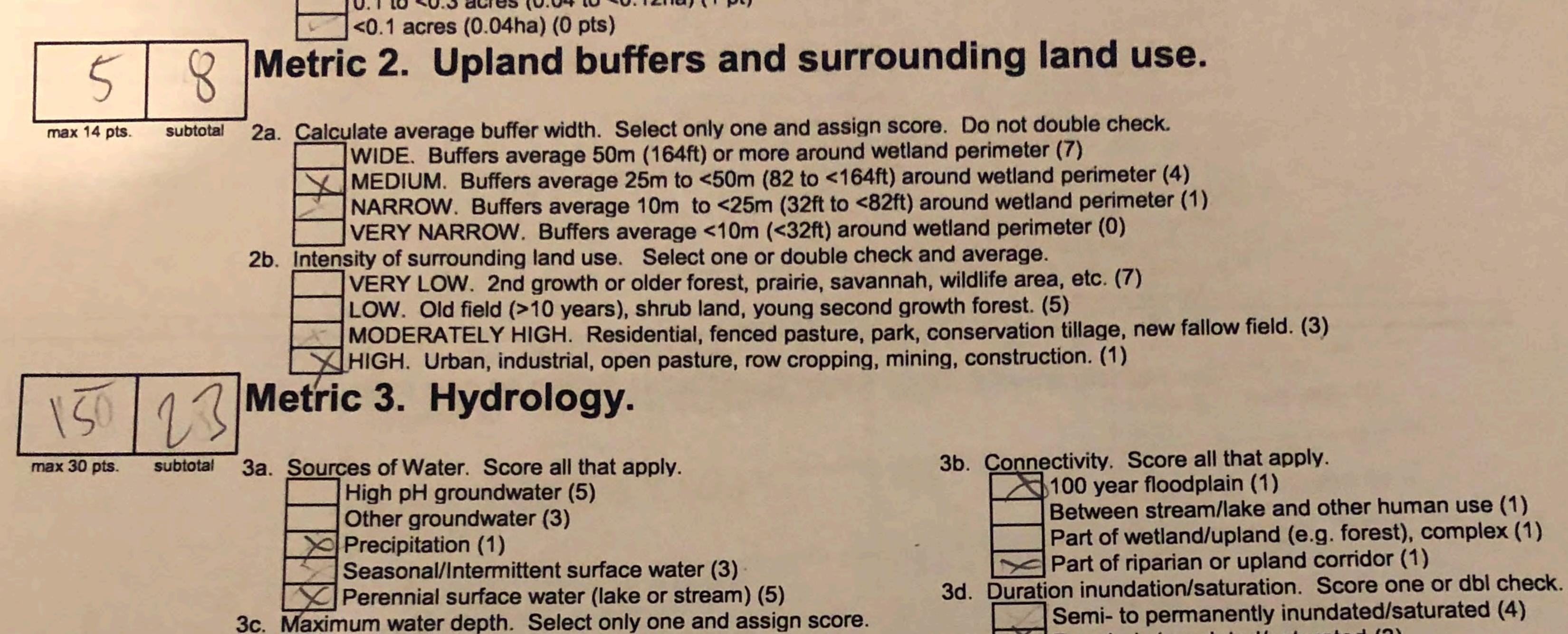
 25 to <50 acres (10.1 to <20.2ha) (5 pts)</td>

 10 to <25 acres (4 to <10.1ha) (4 pts)</td>

 3 to <10 acres (1.2 to <4ha) (3 pts)</td>

 0.3 to <3 acres (0.12 to <1.2ha) (2pts)</td>

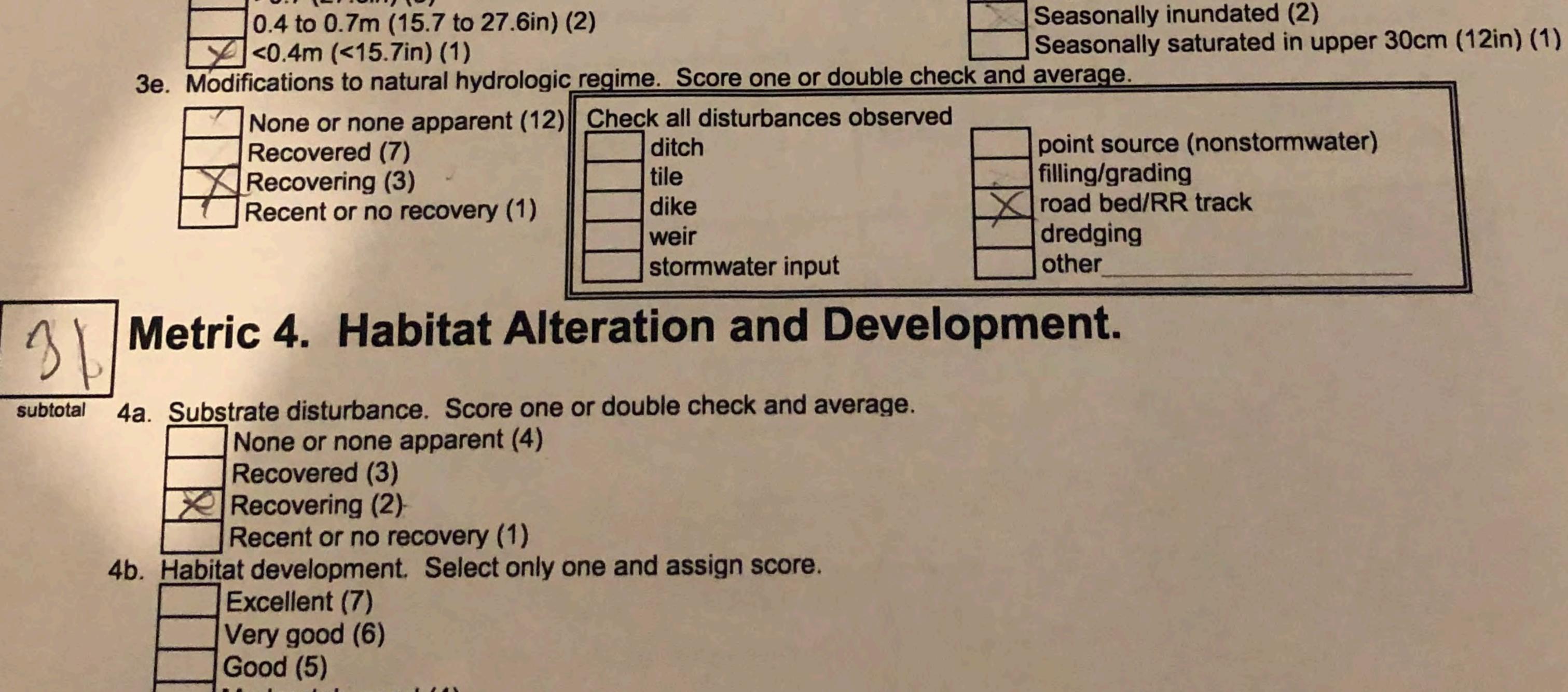
 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)</td>



>0.7 (27.6in) (3)

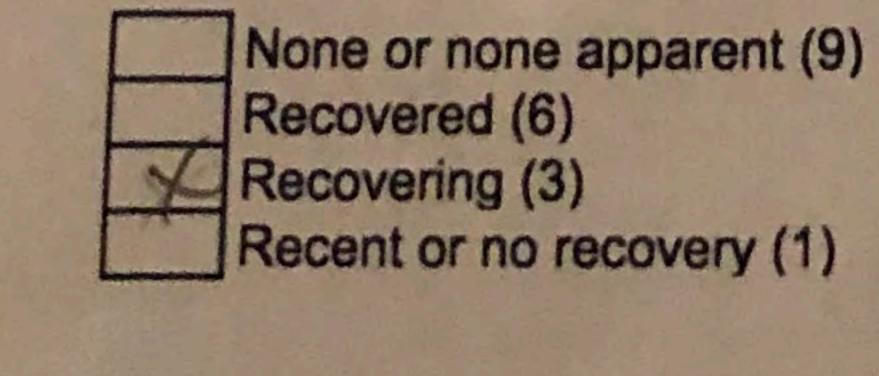
Regularly inundated/saturated (3)

Date:



Moderately good (4) Fair (3) Poor to fair (2) Poor (1)

4c. Habitat alteration. Score one or double check and average.



Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants

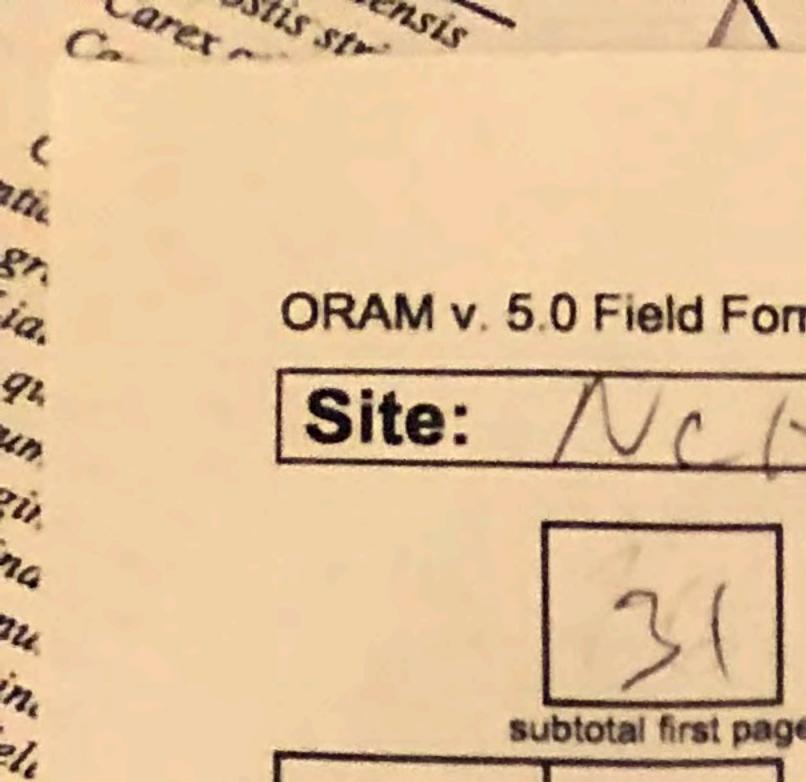
 shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

subtotal this page

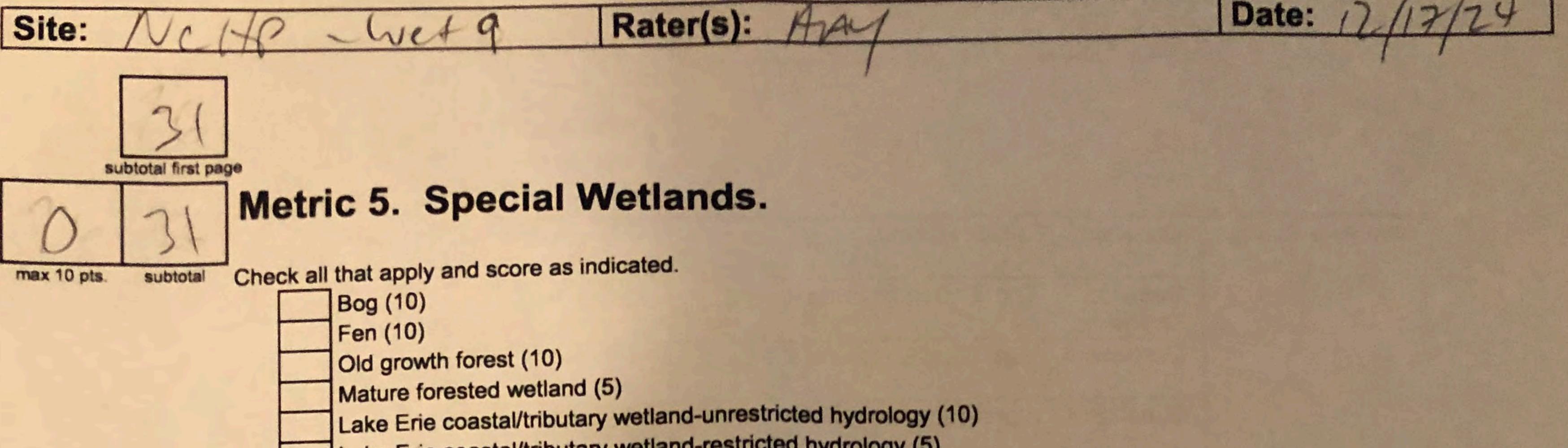
11

max 20 pts.

last revised 1 February 2001 jjm



# ORAM v. 5.0 Field Form Quantitative Rating



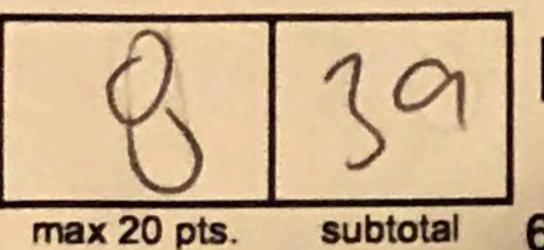
Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10)

Relict Wet Prairies (10)

Known occurrence state/federal threatened or endangered species (10)

Significant migratory songbird/water fowl habitat or usage (10)

Category 1 Wetland. See Question 1 Qualitative Rating (-10)



Metric 6. Plant communities, interspersion, microtopography.

max 20 pts.

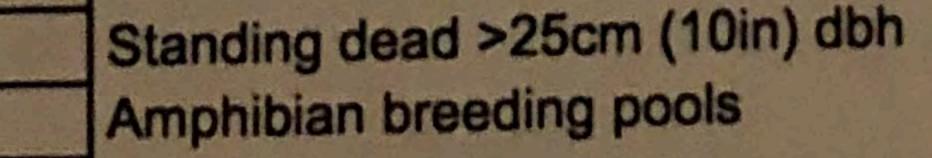
6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale. Aquatic bed Emergent -Shrub Forest Mudflats **Open water** Other

6b. horizontal (plan view) Interspersion. Select only one.

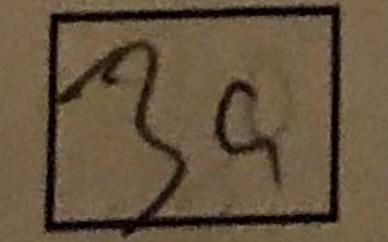
# **Vegetation Community Cover Scale**

| 0 | Absent or comprises <0.1ha (0.2471 acres) contiguous area   |
|---|---|
| 1 | Present and either comprises small part of wetland's<br>vegetation and is of moderate quality, or comprises a<br>significant part but is of low quality |
| 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       |
| 3 | Present and comprises significant part, or more, of wetland's vegetation and is of high quality   |

| High (5)   | Narrative De | escription of Vegetation Quality   |
|--|--------------|--|
| Moderately high(4)   | low          | Low spp diversity and/or predominance of nonnative or<br>disturbance tolerant native species   |
| Moderate (3)<br>Moderately low (2)<br>Low (1)<br>None (0)<br>6c. Coverage of invasive plants. Refer  | mod          | Native spp are dominant component of the vegetation,<br>although nonnative and/or disturbance tolerant native spp<br>can also be present, and species diversity moderate to<br>moderately high, but generally w/o presence of rare<br>threatened or endangered spp |
| to Table 1 ORAM long form for list. Add<br>or deduct points for coverage<br>Extensive >75% cover (-5)<br>Moderate 25-75% cover (-3)<br>Sparse 5-25% cover (-1) | high         | A predominance of native species, with nonnative spp<br>and/or disturbance tolerant native spp absent or virtually<br>absent, and high spp diversity and often, but not always,<br>the presence of rare, threatened, or endangered spp                             |
| Nearly absent <5% cover (0)<br>Absent (1)  | Mudflat and  | d Open Water Class Quality   |
|  | 0            | Absent <0.1ha (0.247 acres)  |
| 6d. Microtopography.   | 1            | Low 0.1 to <1ha (0.247 to 2.47 acres)  |
| Score all present using 0 to 3 scale.<br>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  |
|  |              |  |



| Nicrotopography 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<br>quality or in small amounts of highest quality |  |  |  |
| 3                           | Present in moderate or greater amounts<br>and of highest quality                                  |  |  |  |



8

# End of Quantitative Rating. Complete Categorization Worksheets.

|   |   | DEADIN SCIMO  | 0: 01 000  |   |
|---|---|---|--|---|
| ENGTH OF STREAM REACH (#) 15 (<br>ATE 3 2 2 2 SCORER 2014<br>NOTE: Complete All Items On This   | 2 LAT. 40. 01330  | 40NG: 87.834119F  |  | RIVER MILE  |
|   | T Mannel C  |   | NO PROPERTY OF   | and the second second   |
| SUBSTRATE (Estimate percent o<br>(Max of 32). Add total number of sig<br>BLDR SLABS [16 pts]<br>BOULDER (>256 mm) [16 pts]<br>BEDROCK [16 pt]<br>COBBLE (65-256 mm) [12 pts]<br>GRAVEL (2-64 mm) [9 pts]<br>SAND (<2 mm) [6 pts]<br>Total of Percentages of | ignificant substrate types for       PERCENT       YPE       10       15       16   | und (Max of 8). Final metric<br>SILT [3 pt]<br>LEAF PACK/WOOD<br>FINE DETRITUS [<br>CLAY or HARDPAN<br>MUCK [0 pts]   | ric score is sum of b<br>DY DEBRIS [3 pts]<br>3 pts]<br>N [0 pt] | (B)   |
| Bidr Slabs, Boulder, Cobble, Bedroc<br>DRE OF TWO MOST PREDOMINATE SL<br>Maximum Pool Depth (Measure th<br>evaluation. Avoid plunge pools from<br>> 30 centimeters [20 pts]   | UBSTRATE TYPES:   | ithin the 61 meter (200   | one box):  | the second s  |
| > 22.5 - 30 cm [30 pts]<br>> 10 - 22.5 cm [25 pts]<br>COMMENTS  |   | <pre>&lt; 5 cm [5 pts] NO WATER OR M </pre>   | OIST CHANNEL [0  | 10  |
| BANK FULL WIDTH (Measured as t<br>> 4.0 meters (> 13') [30 pts]<br>> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]<br>> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]   |   | X > 1.0 m - 1.5 m (> 3<br>≤ 1.0 m (≤ 3'3") [5]  |  | 12  |
| COMMENTS  |   | must also be complete   | d  | 20.049  |
| COMMENTS<br>RIPARIAN ZONE AND FLOO<br>RIPARIAN WIDTH  | This information<br>DPLAIN QUALITY ☆I<br>FLOODPLAIN QUAL  | NOTE: River Left (L) and  |  | g downstream 🕸  |
| RIPARIAN ZONE AND FLOO  | DPLAIN QUALITY AT<br>FLOODPLAIN QUAL<br>L R (Most Pred<br>Mature For<br>Immature F  | NOTE: River Left (L) and  | Right (R) as looking   | g downstream☆<br>nservation Tillage<br>an or Industrial   |
| RIPARIAN ZONE AND FLOO<br>RIPARIAN WIDTH<br>L R (Per Bank)<br>U Wide >10m   | DPLAIN QUALITY 11<br>FLOODPLAIN QUAL<br>L R (Most Pred<br>Mature For<br>Immature F<br>Field   | NOTE: River Left (L) and<br><u>ITY</u><br>Iominant per Bank)<br>rest, Wetland<br>Forest, Shrub or Old   | Right (R) as looking   | nservation Tillage<br>an or Industrial<br>en Pasture, Row   |
| RIPARIAN ZONE AND FLOO<br><u>RIPARIAN WIDTH</u><br>L R (Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None  | DPLAIN QUALITY       Image: Complexity of the second | NOTE: River Left (L) and<br><u>ITY</u><br>Iominant per Bank)<br>rest; Wetland<br>Forest, Shrub or Old<br>I, Park, New Field<br>sture<br>me box):<br>Moist Chann | Right (R) as looking   | nservation Tillage<br>an or Industrial<br>en Pasture, Row<br>p<br>ing or Construction<br>no flow (Intermittent) |

| October 24. | 2002 | Revision |
|-------------|------|----------|
|-------------|------|----------|

PHWH Form Page - 1

| DOWNSTREAM DESIGNATED USE(S)   | QHEI PERFORMED? - Yes XNo QHEI Score                     | (If Yes, Attach Completed OHEL Form)  |
|--|--|---|
| WWH Name:  |  |   |
| DCWH Name:       Distance from Evaluated Stream         DEWH 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         USGS Quadrangle Name:       NRCS Soil Map Page:         NRCS Soil Map Stream Order   |  | 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         USGS Quadrangle Name:       NRCS Soil Map Page:   | CWH Name:  | Distance from Evolusted Steam   |
| USGS Quadrangle Name: New Allociny, OH       NRCS Soil Map Page:   | EWH Name: RUCKY FORK                                     | Distance from Evaluated Stream D. & m.  |
| USGS Quadrangle Name: New Allociny, OH       NRCS Soil Map Page:   | MAPPING: ATTACH COPIES OF MAPS, INCLUDING TH             | E ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION                         |
| County: F(CANKLIM  |  |   |
| MISCELLANEOUS         Base Flow Conditions? (Y/N):       Date of last precipitation:       2125/22       Quantity:       0.8"         Photograph Information:  | county: Franklin T                                       | Fownship / City: Caboana  |
| Photograph Information:  |  |   |
| Photograph Information:  | Base Flow Conditions? (Y/N): Date of last precipitation: | 2/25/22 Quantity: 0.8"  |
| Were samples collected for water chemistry? (Y/N):       Note lab sample no. or id. and attach results) Lab Number:         iield Measures:       Temp (°C)       Dissolved Oxygen (mg/l)       pH (S.U.)       Conductivity (µmhos/cm)         is the sampling reach representative of the stream (Y/N)       If not, please explain:   |  |   |
| Were samples collected for water chemistry? (Y/N):       Note lab sample no. or id. and attach results) Lab Number:         iield Measures:       Temp (°C)       Dissolved Oxygen (mg/l)       pH (S.U.)       Conductivity (µmhos/cm)         is the sampling reach representative of the stream (Y/N)       If not, please explain:   | Elevated Turbidity? (Y/N): N Canopy (% open):            | 590   |
| BIOTIC EVALUATION     erformed? (Y/N):      (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) where the observed? (Y/N) Note: Salamanders Observed? (Y/N) Note: Sa   |  |   |
| is the sampling reach representative of the stream (Y/N)       If not, please explain:         is the sampling reach representative of the stream (Y/N)       If not, please explain:         is dditional comments/description of pollution impacts:  | vere samples collected for water chemistry? (Y/N): (Not  | te lab sample no. or id. and attach results) Lab Number:                        |
| is the sampling reach representative of the stream (Y/N)       If not, please explain:         is the sampling reach representative of the stream (Y/N)       If not, please explain:         is dditional comments/description of pollution impacts:  | ield Measures: Temp (°C) Dissolved Oxygen (mg/l)         | pH (S.U.) Conductivity (µmhos/cm)   |
| dditional comments/description of pollution impacts:         BIOTIC EVALUATION         erformed? (Y/N):       N         (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)         sh Observed? (Y/N)       N         Salamanders Observed? (Y/N)       Voucher? (Y/N)  |  |   |
| BIOTIC EVALUATION<br>erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with th<br>ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)<br>sh Observed? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N   |  | not, please explain:  |
| erformed? (Y/N):   | dditional comments/description of pollution impacts:     |   |
| ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)<br>sh Observed? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N  | BIOTIC EVALUATION  |   |
| ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)<br>sh Observed? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N  |  | pucher collections optional. NOTE: all voucher samples must be labeled with the |
| sh Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) N Voucher? (Y/N) Voucher? (Y/N) N Voucher? (Y/ | ID number. Include appropriate field                     | d data sheets from the Primary Headwater Habitat Assessment Manual)             |
| ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)   | sh Observed? (Y/N) N Voucher? (Y/N) N Salamande          | ers Observed? (Y/N) Voucher? (Y/N) V  |
|  | ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N)           | quatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N)                      |

#### 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

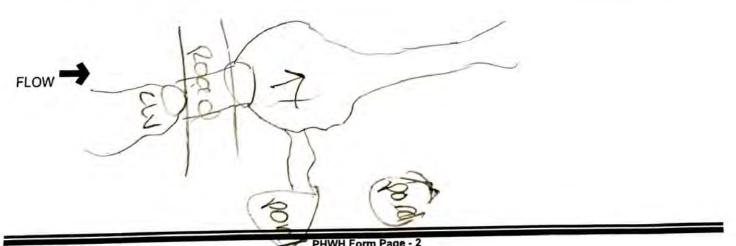
| ChicEPA Prima  | ry Head                  |   | Evaluation F   |   |                               |
|--|--------------------------|---|--|---|-------------------------------|
|  |                          | HHEI  | Score (sum of m  | etrics 1, 2, 3) :                           | <u> </u>                      |
| SITE NAME/LOCATION NCHP  | 5002                     |   | 5+0  |   | 24.7                          |
| LENGTH OF STREAM REACH (R) 200<br>DATE 2 2 77 SCORE 2  | LAT. 40                  | ONDENTS   | HO RIVER CODE _  | RIVER MILE                                  | _                             |
| NOTE: Complete All Items On This   | and some other states of | Part of the second s | CT C TREF STRATEWORK   | Contraction of the second second            |                               |
| MODIFICATIONS:   |                          |   | a star and   | RECENT OR NO RECOV                          | ERY                           |
| 1. SUBSTRATE (Estimate percent of Silver Max of 32). Add total number of silver and total number of si | of every type of         | substrate present. Check  | ONLY two predominant   | substrate TYPE boxes                        | HHE                           |
| TYPE   | PERCENT                  | TYPE  |  | PERCENT                                     | Metri                         |
| BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]   |                          |   | J<br>K/WOODY DEBRIS [3   |   |                               |
| BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts]  | -6-                      |   | RITUS [3 pts]<br>ARDPAN [0 pt]   |   | Substra<br>Max = 4            |
| COBBLE (65-256 mm) [12 pts]  | 10                       |   |  |   | 1/0                           |
| 5 SAND (<2 mm) [6 pts]   | 19                       |   | L [3 pts]  | 5   | 10                            |
| Total of Percentages of<br>Bldr Slabs, Boulder, Cobble, Bedro  | 45                       | (A)   |  | (B) Ч                                       | A+B                           |
| SCORE OF TWO MOST PREDOMINATE S  | A DAY TO A STATE         | PES: TOTA   | L NUMBER OF SUBS   |   |                               |
| Maximum Pool Depth (Measure t  | he maximum po            | ool depth within the 61 m   | eter (200 ft) evaluation   | reach at the time of                        | Pool De                       |
| evaluation. Avoid plunge pools from<br>> 30 centimeters [20 pts]   |                          | r storm water pipes) (Ch  |  |   | Max =                         |
| > 22.5 - 30 cm [30 pts]  |                          | 5 cm [5]  | pts]   |   | 15                            |
| > 10 - 22.5 cm [25 pts]  |                          |   | ER OR MOIST CHANN  | 811   | ~                             |
| COMMENTS   | _                        | MA  | XIMUM POOL DEPTH   | (centimeters):                              |                               |
| BANK FULL WIDTH (Measured as<br>> 4.0 meters (> 13') [30 pts]<br>> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]<br>> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]<br>COMMENTS <u>Nji (&amp; Nect</u> @   | 5]                       | □ > 1.0 m -<br>□ ≤ 1.0 m (  | (Check ONLY one<br>1.5 m (> 3' 3" - 4' 8") [15<br>< 3' 3") [5 pts]<br>ERAGE BANKFULL W | pts]<br>4.6                                 | Bankf<br>Widtl<br>Max=3<br>3C |
|  | This                     | information must also be  | completed  |   | -                             |
| RIPARIAN ZONE AND FLO  | ODPLAIN QUA              | LITY ANOTE: River L   |  | looking downstream                          |                               |
| L R (Per Bank)   | L R                      | PLAIN QUALITY<br>(Most Predominant per B  | ank) LR  |   |                               |
| Wide >10m  | \$O                      | Mature Forest, Wetland  |  | Conservation Tillage                        |                               |
| Moderate 5-10m   | 00                       | Immature Forest, Shrub<br>Field   |  | Urban or Industrial                         |                               |
| Narrow <5m   | ØØ                       | Residential, Park, New F  | ield 🛛 🗖   | Open Pasture, Row<br>Crop                   |                               |
|  |                          | Fenced Pasture  | 00   | Mining or Construction                      |                               |
| FLOW REGIME (At Time of I<br>Stream Flowing<br>Subsurface flow with isolated<br>COMMENTS   |                          |   | oist Channel, isolated  <br>ry channel, no water (l                                    | pools, no flow (Intermittent)<br>Ephemeral) | 5                             |
| SINUOSITY (Number of bend  | ls per 61 m (200         | ) ft) of channel) (Check (  | ONLY one box):   |   |                               |
|  | 1.0                      | 2.0   |  | 3.0<br>>3                                   |                               |
| None I   | 15                       | 25  |  | 3   |                               |
| STREAM GRADIENT ESTIMATE   | 1.5                      | 2.5   | 0  | _ ^3  |                               |

| AT] |    | ١Ц | 10 | NI- | Г | $\sim$ |
|-----|----|----|----|-----|---|--------|
|     | AU |    |    |     |   |        |

| QHEI PERFORMED? - DYes XNo QHEI Score   | _ (If Yes, Attach Completed QHEI Form)  |
|---|---|
| DOWNSTREAM DESIGNATED USE(S)  |   |
| 🗇 WWH Name:   | Distance from Evaluated Stream  |
| CWH Name:   | Distance from Evaluated Stream  |
| CWH Name:<br>EWH Name:<br>EWH Name:<br>EWH Name:  | Distance from Evaluated Stream 0 6 m  |
| MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE  | WATERSHED AREA. CLEARLY MARK THE SITE LOCATION  |
| USGS Quadrangle Name: New Albany NRG  | CS Soil Map Page: NRCS Soil Map Stream Order  |
| County: Franklin Township/  | city: Grahama   |
| MISCELLANEOUS   |   |
| MISCELLANEOUS<br>ase Flow Conditions? (Y/N): Date of last precipitation:  | 5/72 Quantity: 0.8  |
| notograph Information:  |   |
| evated Turbidity? (Y/N): Canopy (% open): 1090  |   |
| ere samples collected for water chemistry? (Y/N): (Note lab sam   | ple no. or id. and attach results) Lab Number:  |
| ld Measures: Temp (°C) Dissolved Oxygen (mg/l)  | pH (S.U.) Conductivity (µmhos/cm)   |
|   |   |
| he sampling reach representative of the stream (Y/N) If not, pleas  | e explain:  |
|   |   |
| ditional comments/description of pollution impacts:   | ÷   |
| BIOTIC EVALUATION   |   |
| ormed? (Y/N): (If Yes, Record all observations. Voucher colle   | ections optional. NOTE: all voucher samples must be labeled with the<br>ets from the Primary Headwater Habitat Assessment Manual) |
|   |   |
| ID number. Include appropriate field data shee         Observed? (Y/N)       Voucher? (Y/N)       N         Salamanders Observed? (Y/N)       Voucher? (Y/N)       N         Aquatic Ma | croinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N)  |

#### 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



PHWH Form Page - 2

| NTE MANER CONTINUE AVEL  |  |   |   |   |
|--|--|---|---|---|
|  |  | SINECIONO   |   |   |
| ENGTH OF STREAM REACH (ft) SO<br>ATE 3227 SCORER UEK<br>NOTE: Complete All Items On This Fo  | _LATU OUTOLO   | NG-87.13517URI  | VER CODE  | RIVER MILE  |
| MODIFICATIONS: Colverted   | TI PCL KI  |   |   | ECENT OR NO RECOV   |
| BLDR SLABS [16 pts]           BOULDER (>256 mm) [16 pts]           BEDROCK [16 pt]           COBBLE (65-256 mm) [12 pts]           GRAVEL (2-64 mm) [9 pts]  | Cant substrate types found PERCENT UPE UN  | (Max of 8). Final metri<br>SILT [3 pt]<br>LEAF PACK/WOOD<br>FINE DETRITUS [3<br>CLAY or HARDPAN<br>MUCK [0 pts] | c score is sum of b<br>Y DEBRIS [3 pts]<br>  pts]                   | trate TYPE boxes<br>oxes A & B.<br>PERCENT<br>CO                                |
| Total of Percentages of<br>Bidr Slabs, Boulder, Cobble, Bedrock _<br>ORE OF TWO MOST PREDOMINATE SUBS  | 0 (*)9   | ARTIFICIAL [3 pts]  |   | (B) 7   |
| > 10 - 22.5 cm [25 pts]<br>COMMENTS<br>BANK FULL WIDTH (Measured as the<br>> 4.0 meters (> 13') [30 pts]<br>> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]<br>> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] | e average of 3-4 measure   |   | OOL DEPTH (cen<br>ck <i>ONLY</i> one box)<br>' 3" - 4' 8") [15 pts] | timeters):  |
| COMMENTS   |  | AVERAGE B   | ANKFULL WIDTH   | (meters)  |
| RIPARIAN ZONE AND FLOODF<br><u>RIPARIAN WIDTH</u><br>L R (Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m   | PLAIN QUALITY     PANO       FLOODPLAIN QUALITI     L       L     R       (Most Predo       Image: Comparison of the state of the sta | minant per Bank)  | I Right (R) as looki<br>□ □ □ Ca<br>√2 ∮2 Ur<br>□ □ □ ○             | ng downstream 🖈<br>onservation Tillage<br>ban or Industrial<br>pen Pasture, Row |
| COMMENTS   | Fenced Past  | ure   |   | ining or Construction   |
| FLOW REGIME (At Time of Evalue<br>Stream Flowing<br>Subsurface flow with isolated pools<br>COMMENTS_   |  | Moist Chan  | nel, isolated pools,<br>I, no water (Epher                          | , no flow (Intermittent)<br>neral)  |
| Control Marshare and the second  | er 61 m (200 ft) of channel  | and Castron   | 6.7.4   |   |

October 24, 2002 Revision

| QHEI PERFORMED? - OYes DNo QHEI Score (If  | Yes, Attach Completed OHEI Form)  |
|--|---|
| DOWNSTREAM DESIGNATED USE(S)   |   |
| WWH Name:  | Distance from Evaluated Stream  |
|  |   |
| CWH Name:FCX V   | Distance from Evaluated Stream 1,3  |
| MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WAT   | TERSHED AREA. CLEARLY MARK THE SITE LOCATION  |
| USGS Quadrangle Name: New Allpany NRCS S   | Soil Map Page: NRCS Soil Map Stream Order   |
| County: Franklin Township / City   | Gahanna   |
| MISCELLANEOUS  |   |
| Base Flow Conditions? (Y/N): Date of last precipitation:2  | 272 Quantity: 0.8   |
| hotograph Information:   |   |
| levated Turbidity? (Y/N): N Canopy (% open): 20 70   |   |
| Vere samples collected for water chemistry? (Y/N): (Note lab sample n  | no. or id. and attach results) Lab Number:  |
| ield Measures: Temp (°C) Dissolved Oxygen (mg/l) pH  | (S.U.) Conductivity (µmhos/cm)  |
| the sampling reach representative of the stream (Y/N) 1 If not, please ex  |   |
|  | pun   |
| BIOTIC EVALUATION  |   |
| ID number. Include appropriate field data sheets fro   | om the Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) V   |
| ID number. Include appropriate field data sheets fro<br>sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin  | om the Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N)<br>vertebrates Observed? (Y/N) Voucher? (Y/N)   |
| ID number. Include appropriate field data sheets from<br>th Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>bgs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin<br>mments Regarding Biology:  | (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) Voucher? (Y/N)  |
| ID number. Include appropriate field data sheets from the Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? Over the Observed? (Y/N) Over the O | The Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) Voucher? (Y/N)<br>Invertebrates Observed? (Y/N) Voucher? (Y/N)<br>REAM REACH (This <u>must</u> be completed):  |
| ID number. Include appropriate field data sheets from the observed? (Y/N) Voucher? (Y/N) Salamanders Observed? Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin mments Regarding Biology:  | The Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) Voucher? (Y/N)<br>wertebrates Observed? (Y/N) Voucher? (Y/N)<br>REAM REACH (This must be completed):   |
| ID number. Include appropriate field data sheets from the Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin mments Regarding Biology:  | The Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) Voucher? (Y/N)<br>wertebrates Observed? (Y/N) Voucher? (Y/N)<br>REAM REACH (This must be completed):   |
| ID number. Include appropriate field data sheets from the Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin mments Regarding Biology:  | The Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) Voucher? (Y/N)<br>wertebrates Observed? (Y/N) Voucher? (Y/N)<br>REAM REACH (This must be completed):   |
| ID number. Include appropriate field data sheets from<br>sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin<br>mments Regarding Biology:<br>DRAWING AND NARRATIVE DESCRIPTION OF STR  | The Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) Voucher? (Y/N)<br>wertebrates Observed? (Y/N) Voucher? (Y/N)<br>REAM REACH (This <u>must</u> be completed):  |
| ID number. Include appropriate field data sheets from the Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin mments Regarding Biology:  | The Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) Voucher? (Y/N)<br>wertebrates Observed? (Y/N) Voucher? (Y/N)<br>REAM REACH (This must be completed):   |
| ID number. Include appropriate field data sheets from<br>the Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>bgs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin<br>mments Regarding Biology:<br>DRAWING AND NARRATIVE DESCRIPTION OF STIF<br>Include important landmarks and other features of interest for site eval<br>SIDPECT   | The Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) Voucher? (Y/N)<br>wertebrates Observed? (Y/N) Voucher? (Y/N)<br>REAM REACH (This must be completed):   |
| ID number. Include appropriate field data sheets from<br>the Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>bgs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin<br>mments Regarding Biology:<br>DRAWING AND NARRATIVE DESCRIPTION OF STIF<br>Include important landmarks and other features of interest for site eval<br>SIDPECT   | The Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) Voucher? (Y/N)<br>wertebrates Observed? (Y/N) Voucher? (Y/N)<br>REAM REACH (This must be completed):   |
| ID number. Include appropriate field data sheets fro<br>sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin<br>imments Regarding Biology:<br>DRAWING AND NARRATIVE DESCRIPTION OF STI<br>Include important landmarks and other features of interest for site eval<br>SIOPED  | The Primary Headwater Habitat Assessment Manual)<br>(Y/N) Voucher? (Y/N) Voucher? (Y/N)<br>wertebrates Observed? (Y/N) Voucher? (Y/N)<br>REAM REACH (This must be completed):   |
| ID number. Include appropriate field data sheets fro<br>sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin<br>imments Regarding Biology:<br>DRAWING AND NARRATIVE-DESCRIPTION OF STR<br>Include important landmarks and other features of interest for site evaluation<br>SIOPE-1   | cm the Primary Headwater Habitat Assessment Manual)         (Y/N)       Voucher? (Y/N)         invertebrates Observed? (Y/N)       Voucher? (Y/N)         REAM REACH (This must be completed):         uation and a narrative description of the stream's location         SWW  |
| ID number. Include appropriate field data sheets fro<br>sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin<br>imments Regarding Biology:<br>DRAWING AND NARRATIVE DESCRIPTION OF STI<br>Include important landmarks and other features of interest for site evaluation<br>SIOPE   | cm the Primary Headwater Habitat Assessment Manual)         (Y/N)       Voucher? (Y/N)         invertebrates Observed? (Y/N)       Voucher? (Y/N)         REAM REACH (This must be completed):         uation and a narrative description of the stream's location         SWW  |
| ID number. Include appropriate field data sheets fro<br>sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin<br>mments Regarding Biology:<br>DRAWING AND NARRATIVE DESCRIPTION OF STI<br>Include important landmarks and other features of interest for site eval<br>SIOPERT<br>OW  | cm the Primary Headwater Habitat Assessment Manual)         (Y/N)       Voucher? (Y/N)         invertebrates Observed? (Y/N)       Voucher? (Y/N)         REAM REACH (This must be completed):         uation and a narrative description of the stream's location         SWW  |
| ID number. Include appropriate field data sheets fro<br>on Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>Voucher? (Y/N) Aquatic Macroin<br>mments Regarding Biology:<br>DRAWING AND NARRATIVE DESCRIPTION OF STH<br>Include important landmarks and other features of interest for site eval<br>SIOPER SUPPORT   | cm the Primary Headwater Habitat Assessment Manual)         (Y/N)       Voucher? (Y/N)         invertebrates Observed? (Y/N)       Voucher? (Y/N)         REAM REACH (This must be completed):         uation and a narrative description of the stream's location         SWUD |
| ID number. Include appropriate field data sheets fro<br>observed? (Y/N)Voucher? (Y/N)Salamanders Observed?<br>Voucher? (Y/N)Voucher? (Y/N)Aquatic Macroin<br>mments Regarding Biology:<br>DRAWING AND NARRATIVE-DESCRIPTION OF STR<br>Include important landmarks and other features of interest for site evalu-<br>SIOPE-1  | cm the Primary Headwater Habitat Assessment Manual)         (Y/N)       Voucher? (Y/N)         wertebrates Observed? (Y/N)       Voucher? (Y/N)         REAM REACH (This must be completed):         uation and a narrative description of the stream's location         SWW    |
| ID number. Include appropriate field data sheets fro<br>on Observed? (Y/N) Voucher? (Y/N) Salamanders Observed?<br>Voucher? (Y/N) Aquatic Macroin<br>mments Regarding Biology:<br>DRAWING AND NARRATIVE DESCRIPTION OF STH<br>Include important landmarks and other features of interest for site eval<br>SIOPER SUPPORT   | cm the Primary Headwater Habitat Assessment Manual)         (Y/N)       Voucher? (Y/N)         wertebrates Observed? (Y/N)       Voucher? (Y/N)         REAM REACH (This must be completed):         uation and a narrative description of the stream's location         SWW    |

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|   | LOCATION NCHY  | 2003   |   | ASIN SUI OLO RE   | ver ne  |  | 04,       |
|---|--|--|---|---|---|--|-----------|
| LENGTH O  | SITE NUMBER  | LAT-10.0   | \$1079LO  | NG- 87.834 62R  | IVER CODE   |  |           |
|   | omplete All Items On This F  |  | MMENTS  | aluation Manual fo  | r Ohio's PHV  | VH Streams" for Instru   | Ictions   |
| STREAM (  |  |  |   |   | The state of the s          | RECENT OR NO RECO  | -         |
|   | ATIONS: CULVENTE   |  | and the second se | 2 12  | 1.1611.1  | <b>`</b>   |           |
|   | STRATE (Estimate percent of  |  |   | V   | o predominant   |  |           |
| (Ma   | x of 32). Add total number of sign   | ficant substrate   | types found   | (Max of 8). Final metri   | ic score is sum   | of boxes A & B.  | HH<br>Met |
|   | BLDR SLABS [16 pts]  | PERCENT  | TYPE<br>D   | SILT [3 pt]   |   | <u>HERCENT</u>   | Poir      |
|   | BOULDER (>256 mm) [16 pts]<br>BEDROCK [16 pt]  |  |   | LEAF PACK/WOOD<br>FINE DETRITUS [3  |   | ts] _//  | Subst     |
| 00 0  | COBBLE (65-256 mm) [12 pts]  | 0  | ōō  | CLAY or HARDPAN   |   |  | Max =     |
|   | RAVEL (2-64 mm) [9 pts]  | 20   |   | MUCK [0 pts]  |   |  | H         |
|   | AND (<2 mm) [6 pts]  | 10   |   | ARTIFICIAL [3 pts]  |   |  |           |
| Bidr S  | Total of Percentages of<br>Slabs, Boulder, Cobble, Bedrock   | 10   | (A) 12  |   |   | (B) 5  | A+1       |
| CORE OF T   | WO MOST PREDOMINATE SUE  | STRATE TYPE  |   | TOTAL NUMBE   | ER OF SUBST   |  |           |
|   | num Pool Depth (Measure the  | · · · · · · · · · · · · · · · · · · ·  |   |   | <ul> <li>A second sec<br/>second second sec</li></ul> | ach at the time of   | Pool D    |
| a support of the local data   | ation. Avoid plunge pools from ro<br>entimeters [20 pts]   | ad culverts or s   | torm water p  | ipes) (Check ONLY<br>> 5 cm - 10 cm [15   | and a state of the          |  | Max =     |
|   | - 30 cm [30 pts]<br>22.5 cm [25 pts]   |  | g   | < 5 cm [5 pts]<br>NO WATER OR MO  |   | [0 atc]  | 14        |
| 5 10  |  |  |   | A March   |   | 10   | -         |
| COM   | MENTS  |  |   |   | OOL DEPTH (   | centimeters):  |           |
| and the second se | (FULL WIDTH (Measured as the<br>neters (> 13') [30 pts]  | e average of 3   | -4 measuren   | nents) (Chec<br>> 1.0 m - 1.5 m (> 3'   | k ONLY one b  |  | Bank      |
| > 3.0 m   | - 4.0 m (> 9' 7" - 13') [25 pts]   |  | 6   | ≤ 1.0 m (≤ 3' 3") [5 p  |   | 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | Max=      |
| J >1.5 m  | - 3.0 m (> 9' 7" - 4' 8") [20 pts]   |  | 3   |   |   | 0.6  | 12        |
|   | MENTS  |  |   | AVERAGE B   | ANKFULL WID   | TH (meters)  |           |
| COMM  |  |  | formation m   | ust also be complete  | ed  |  |           |
| COMM  |  | This in  | Contraction of the second second  |   | D'-14 (D) - 1   | oking downstreams?   |           |
| COMM  | RIPARIAN ZONE AND FLOOD  | PLAIN QUALI  |   | TE: River Left (L) and  | Right (R) as lo   | oning domistican A   |           |
| COMM<br>L R   | RIPARIAN ZONE AND FLOOD<br>RIPARIAN WIDTH<br>(Per Bank)  | FLOODPL  | AIN QUALIT  |   | LR  |  |           |
|   | RIPARIAN WIDTH<br>(Per Bank)   |  | AIN QUALIT<br>(Most Predon<br>Mature Fores  | Y<br>ninant per Bank)<br>it, Wetland  |   | Conservation Tillage   |           |
| LR  | <u>RIPARIAN WIDTH</u><br>(Per Bank)  |  | AIN QUALIT<br>(Most Predon<br>Mature Fores  | <u>Y</u><br>ninant per Bank)  | LR  |  |           |
|   | <u>RIPARIAN WIDTH</u><br>(Per Bank)<br>Wide >10m   |  | AIN QUALIT<br>(Most Predon<br>Mature Fores<br>Immature For<br>Field   | Y<br>ninant per Bank)<br>it, Wetland  |   | Conservation Tillage<br>Urban or Industrial<br>Open Pasture, Row                                   |           |
|   | RIPARIAN WIDTH<br>(Per Bank)<br>Wide >10m<br>Moderate 5-10m  |  | AIN QUALIT<br>(Most Predon<br>Mature Fores<br>Immature For<br>Field   | Y<br>ninant per Bank)<br>it, Wetland<br>rest, Shrub or Old<br>Park, New Field                               |   | Conservation Tillage<br>Urban or Industrial  |           |
|   | RIPARIAN WIDTH<br>(Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None<br>COMMENTS<br>FLOW REGIME (At Time of Eva   |  | AIN QUALIT<br>(Most Predon<br>Mature Fores<br>Immature For<br>Field<br>Residential, P<br>Fenced Pastu   | Y<br>ninant per Bank)<br>t, Wetland<br>rest, Shrub or Old<br>Park, New Field<br>ure<br>a b <u>ox</u> ):     |   | Conservation Tillage<br>Urban or Industrial<br>Open Pasture, Row<br>Crop<br>Mining or Construction |           |
|   | RIPARIAN WIDTH<br>(Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None<br>COMMENTS  | PLAIN QUALIT<br>FLOODPL<br>L R<br>D D<br>F<br>D D<br>F<br>Iuation) (Cher                       | AIN QUALIT<br>(Most Predon<br>Mature Fores<br>Immature For<br>Field<br>Residential, P<br>Fenced Pastu   | Y<br>ninant per Bank)<br>t, Wetland<br>rest, Shrub or Old<br>Park, New Field<br>ure<br>box):<br>Moist Chann |   | Conservation Tillage<br>Urban or Industrial<br>Open Pasture, Row<br>Crop<br>Mining or Construction |           |
|   | RIPARIAN WIDTH<br>(Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None<br>COMMENTS<br>FLOW REGIME (At Time of Eva<br>Stream Flowing<br>Subsurface flow with isolated poor | PLAIN QUALIT<br>FLOODPL<br>L R<br>D D<br>F<br>D D<br>F<br>Iuation) (Chemical<br>(Interstitial) | AIN QUALIT<br>(Most Predon<br>Mature Fores<br>Immature For<br>Field<br>Residential, F<br>Fenced Pastu<br>ck ONLY one  | Y<br>ninant per Bank)<br>it, Wetland<br>Park, New Field<br>ure<br>box):<br>Dry channel,                     | L R<br>D X<br>D X<br>D D<br>D<br>D<br>D<br>D<br>D   | Conservation Tillage<br>Urban or Industrial<br>Open Pasture, Row<br>Crop<br>Mining or Construction |           |

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| ADDITIONAL STREAM INFORMATION (This information Must Also be Completed  | <u>d):</u>                               |
|---|--|
| QHEI PERFORMED? - DYes No QHEI Score (If Yes,   | Attach Completed QHEI Form)              |
| DOWNSTREAM DESIGNATED USE(S) D WWH Name: D CWH Name: EWH Name: LOCKY FOX  | Distance from Evaluated Stream           |
| MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSH  | ap Page: NRCS Soil Map Stream Order      |
| County: Franklin Township / City: Gr  | abanna                                   |
| MISCELLANEOUS<br>Base Flow Conditions? (Y/N): 4 Date of last precipitation: 2/25/22   | Quantity:                                |
| Ilevated Turbidity? (Y/N): N Canopy (% open): S   | id. and 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:  | .) Conductivity (μmhos/cm)               |
| Additional comments/description of pollution impacts:   |  |
| ID number. Include appropriate field data sheets from the         Fish Observed? (Y/N)       Voucher? (Y/N)       N         Frogs or Tadpoles Observed? (Y/N)       Voucher? (Y/N)       Aquatic Macroinverte |  |
| Comments Regarding Biology:   | M REACH (This <u>must</u> be completed): |
| FLOW  |  |

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|                   |   |                              |   | INSCIOTO RI   | UP DRAIN   | AGE AREA (mi²) <u>O</u>  |
|-------------------|---|------------------------------|---|---|--|--|
| ENGTH             | OF STREAM REACH (R) 200   | LAT.GO                       | 201994 LONG   | G-87853057RIV   | ER CODE  |  |
|                   | Complete All Items On This  |                              |   |   |  | Streeme" for Instru  |
|                   |   | CONTRACTOR                   | -   | The second second second  |  | ECENT OR NO RECOV  |
|                   | CATIONS: CULVENT  | Carl Contract State          | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   |   |  |  |
| s                 | UBSTRATE (Estimate percent o  |                              | 0   | Strange Statistics  | predominant sub  | strate TYPE hoves  |
|                   | Max of 32). Add total number of sig   |                              | and the state of the                           |   |  | oxes A & B.  |
|                   | BLDR SLABS [16 pts]   |                              |   | SILT [3 pt]   |  | 15   |
|                   | BOULDER (>256 mm) [16 pts]<br>BEDROCK [16 pt]   |                              |   | LEAF PACK/WOODY<br>FINE DETRITUS [3]  |  |  |
| 20                | COBBLE (65-256 mm) [12 pts]   | 5                            |   | CLAY or HARDPAN   |  |  |
|                   | GRAVEL (2-64 mm) [9 pts]<br>SAND (<2 mm) [6 pts]  | 100                          |   | MUCK [0 pts]<br>ARTIFICIAL [3 pts]  |  | 10   |
| <i>.</i> .        | Total of Percentages of   |                              |   | ACTIVICIAL [3 pta]  |  |  |
|                   | fr Slabs, Boulder, Cobble, Bedroc   |                              | ~ 9   |   |  | <sup>(B)</sup> 5   |
| DRE OF            | TWO MOST PREDOMINATE SU   | JBSTRATE TYP                 | ES:   | TOTAL NUMBE   | R OF SUBSTRAT  |  |
|                   | aluation. Avoid plunge pools from   |                              |   |   |  | at the time of   |
| > 30              | centimeters [20 pts]  | road cuiverts of             |   | > 5 cm - 10 cm [15 p  | the second s |  |
| the second second | 2.5 - 30 cm [30 pts]<br>) - 22.5 cm [25 pts]  |                              |   | < 5 cm [5 pts]<br>NO WATER OR MO  | IST CHANNEL  | pts]   |
| co                | MMENTS  |                              |   |   | OOL DEPTH (cer   | 151  |
| _                 | NK FULL WIDTH (Measured as  |                              | 2.4   |   |  |  |
|                   | meters (> 13') [30 pts]   | the average of               |   | > 1.0 m - 1.5 m (> 3'   |  |  |
|                   | 0 m - 4.0 m (> 9' 7" - 13') [25 pts]<br>5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]  | 1                            | U   | ≤ 1.0 m (≤ 3' 3") [5 p  | ts]  | the second states  |
|                   |   |                              |   |   |  |  |
|                   | MMENTS  |                              |   | AVERAGE BA  | NKFULL WIDTH   | (meters) —   |
| co                |   | - 1947.03                    | nformation mu   | st also be complete   |  | Station and  |
| co                |   |                              |   |   |  |  |
|                   | RIPARIAN ZONE AND FLOO  | DPLAIN QUAL                  |   | E: River Left (L) and   | Right (R) as looki   | ng downstream 😒  |
| Ľ                 | RIPARIAN WIDTH<br>R (Per Bank)  | DPLAIN QUAL<br>FLOODP<br>L R | ITY ☆NOT<br>LAIN QUALITY<br>(Most Predomi   | nant per Bank)  | LR   |  |
| 6                 | RIPARIAN WIDTH<br>R (Per Bank)<br>Wide >10m   |                              | ITY ☆NOT<br>LAIN QUALITY<br>(Most Predomi<br>Mature Forest,   | nant per Bank)  |  | onservation Tillage  |
| Ļ                 | RIPARIAN WIDTH<br>R (Per Bank)<br>Wide >10m<br>Moderate 5-10m   |                              | ITY ☆NOT<br>LAIN QUALITY<br>(Most Predomi<br>Mature Forest,   | nant per Bank)<br>Wetland   |  | onservation Tillage<br>rban or Industrial  |
|                   | RIPARIAN WIDTH<br>(Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m   |                              | ITY ANOT<br>LAIN QUALITY<br>(Most Predomi<br>Mature Forest,<br>Immature Fore<br>Field<br>Residential, Pa                                  | nant per Bank)<br>Wetland<br>st, Shrub or Old<br>ark, New Field                               |  | onservation Tillage<br>rban or Industrial<br>pen Pasture, Row<br>rop   |
| Ļ                 | RIPARIAN WIDTH<br>(Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m   |                              | ITY ☆NOT<br>LAIN QUALITY<br>(Most Predomi<br>Mature Forest,<br>Immature Fore<br>Field   | nant per Bank)<br>Wetland<br>st, Shrub or Old<br>ark, New Field                               |  | onservation Tillage<br>rban or Industrial<br>pen Pasture, Row  |
|                   | RIPARIAN WIDTH<br>R (Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None<br>COMMENTS   |                              | ITY ☆NOT<br>LAIN QUALITY<br>(Most Predomi<br>Mature Forest,<br>Immature Fore<br>Field<br>Residential, Pa<br>Fenced Pastur                 | nant per Bank)<br>Wetland<br>st, Shrub or Old<br>ark, New Field<br>e                          |  | onservation Tillage<br>rban or Industrial<br>pen Pasture, Row<br>rop   |
|                   | RIPARIAN WIDTH<br>R (Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None<br>COMMENTS<br>FLOW REGIME (At Time of E<br>Stream Flowing                                    | Valuation) (Ch               | ITY ANOT<br>LAIN QUALITY<br>(Most Predomi<br>Mature Forest,<br>Immature Fore<br>Field<br>Residential, Pa<br>Fenced Pastur<br>eck ONLY one | nant per Bank)<br>Wetland<br>st, Shrub or Old<br>ark, New Field<br>e<br>box):<br>Moist Chann  | L R<br>C C<br>C U<br>C U<br>C C<br>C C<br>C<br>C W<br>N<br>el, isolated pools  | onservation Tillage<br>rban or Industrial<br>pen Pasture, Row<br>rop<br>lining or Construction<br>, no flow (Intermittent) |
|                   | RIPARIAN WIDTH<br>R (Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None<br>COMMENTS<br>FLOW REGIME (At Time of E  | Valuation) (Ch               | ITY ANOT<br>LAIN QUALITY<br>(Most Predomi<br>Mature Forest,<br>Immature Fore<br>Field<br>Residential, Pa<br>Fenced Pastur<br>eck ONLY one | nant per Bank)<br>Wetland<br>Ist, Shrub or Old<br>ark, New Field<br>e<br>box):<br>Moist Chann |  | onservation Tillage<br>rban or Industrial<br>pen Pasture, Row<br>rop<br>lining or Construction<br>, no flow (Intermittent) |
|                   | RIPARIAN WIDTH<br>R (Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None<br>COMMENTS<br>FLOW REGIME (At Time of E<br>Stream Flowing<br>Subsurface flow with isolated p | Valuation) (Ch               | ITY ANOT<br>LAIN QUALITY<br>(Most Predomi<br>Mature Forest,<br>Immature Fore<br>Field<br>Residential, Pa<br>Fenced Pastur<br>eck ONLY one | nant per Bank)<br>Wetland<br>st, Shrub or Old<br>ark, New Field<br>e<br>box):<br>Dry channel, | L R<br>C<br>C U<br>C U<br>C C<br>C<br>C M<br>M<br>el, isolated pools<br>no water (Ephel  | onservation Tillage<br>rban or Industrial<br>pen Pasture, Row<br>rop<br>lining or Construction<br>, no flow (Intermittent) |

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|------------------|----------|
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| ADDITIONAL STREAM INFORMATION (This Information Must Also be Comple   |  |
|---|--|
| QHEI PERFORMED? - O Yes X No QHEI Score (If Yes   | es, Attach Completed QHEI Form)  |
| DEWH Name:  | Distance from Evaluated Stream<br>Distance from Evaluated Stream<br>RSHED AREA. CLEARLY MARK THE SITE LOCATION |
| JSGS Quadrangle Name: New Albany NRCS So  | Map Page: NRCS Soil Map Stream Order   |
| County: Franklin Township / City:   | Gabanna  |
| MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: 2(25/2 Photograph Information:                 |  |
| Elevated Turbidity? (Y/N): Canopy (% open): 70 ?0   |  |
|   |  |
| Were samples collected for water chemistry? (Y/N): (Note lab sample no  |  |
| Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (  |  |
| Is the sampling reach representative of the stream (Y/N) If not, please expl  | ain:   |
| ID number. Include appropriate field data sheets from   |  |
| DRAWING AND NARRATIVE DESCRIPTION OF STR<br>Include important landmarks and other features of interest for site evalu |  |
| A PICK  |  |
|   |  |

- Concile

| OTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction         RECOVERED RECOVERING RECENT OR NO RECOVER         ODIFICATIONS: Channel Recent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes         SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes         SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes         SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes         Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.         PERCENT         TYPE         BLDR SLABS [16 pts]       BLDR SLABS [16 pts]         BOULDER (>256 mm) [16 pts]       CLAY or HARDPAN [0 pt]         BLD (CoBBLE (65-256 mm) [12 pts]       CLAY or HARDPAN [0 pt]         BLD (CoBBLE (65-256 mm) [12 pts]       CLAY or HARDPAN [0 pt]         BLD (CoBBLE (65-256 mm) [16 pts]       CLAY or HARDPAN [0 pt]         Total of Percentages of<br>BLD SLABS, Boulder, Cobble, Bedrock         Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of<br>evaluation. Avoid plunge pools from road culverts or stom water, pipes)       Check ONLY one box): <tr< th=""><th>E MAINE/LOCATION / CLAT</th><th></th><th>HHEI Score (</th><th></th><th></th></tr<>   | E MAINE/LOCATION / CLAT   |  | HHEI Score (  |   |             |
|--|---|--|---|---|-------------|
| ATE  | SITE NU   | MBER 207   | RIVER BASIN SCIOTO  |   | 1.4S        |
| TREEAM CHANNEL       NONE / NATURAL CHANNEL       RECOVERIED       <   | ATE JUL SCORER  | Le con   | MMENTS  |   |             |
| MODIFICATIONS:       CAMMA (F.C.M.)       COULOCH  |   |  |   |   |             |
| SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes<br>(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.         TYPE<br>BUDK SLASS (16 pts)<br>BOULDER (>255 mm) (16 pts)<br>BEDR SLASS (16 pts)<br>BOULDER (>255 mm) (17 pts)<br>GRAVEL (24 mm) (16 pts)<br>BUDK SLASS (16 pts)<br>BEDR SLASS (16 pts)<br>BUDK SLASS (16 pts)<br>CORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:<br>Total of Percentages of<br>BUDK SLASS Boulder, Cobble, Bedrock COME (10 pt)<br>CORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:<br>Total of Percentages of<br>BUDK SLASS (16 pts)<br>Statistical context at the time of<br>evaluation. Avoid plunge pools from road culverts or storm water, pipes)<br>(Check ONLY one box):<br>> 30 centimeters (20 pts)<br>> 10 - 22.5 cm (25 pts)<br>COMMENTS<br>MAXIMUM POOL DEPTH (centimeters):<br>> 40 meters (> 13 (30 pts)<br>> 10 - 22.5 cm (25 pts)<br>COMMENTS<br>MAXIMUM POOL DEPTH (centimeters):<br>> 40 meters (> 13 (30 pts)<br>> 10 - 22.5 cm (25 pts)<br>COMMENTS<br>MAXIMUM POOL DEPTH (centimeters):<br>> 40 meters (> 13 (30 pts)<br>> 10 - 22.5 cm (25 pts)<br>COMMENTS<br>MAXIMUM POOL DEPTH (centimeters):<br>S (10 m (: 5 33) [5 pts]<br>> 15 m - 3.0 m (> 97 - 47 8') [20 pts)<br>COMMENTS<br>Macrow <5m<br>Disinformation must also be completed<br>RIPARIAN ZONE AND FLOODPLAIN QUALITY<br>Narrow <5m<br>Disinformation for Bank)<br>Residential, Park, New Field<br>Dist Channel, isolated pools, no flow (Intermitten)<br>Dy channel, no water (Ephemeral)<br>COMMENTS<br>Subsurface flow with isolated pools (Intersitial)<br>COMMENTS<br>Dist Channel, isolated pools, no flow (Intermitten)<br>Dy channel, no water (Ephemeral)<br>COMMENTS       Sa 0                            |   | Malizal  | CULERA YOC  | ent dist.   |             |
| (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A 8 8.         TYPE       BLDR SLABS (16 pts)         BOULDER (-255 mm) (16 pts)       BERCENT         Debrock (16 pt)       Comments         Debrock (16 pts)       Comments <th></th> <th></th> <th></th> <th></th> <th>1</th>   |   |  |   |   | 1           |
| BLOR SLABS (16 pts)       BULLEAF PACKWOODY DEBRIS (3 pts)         BULDER (-226 mm) (15 pts)       CAY or HARDPAN (0 pt)         GL       COBBLE (65-256 mm) (12 pts)       CAY or HARDPAN (0 pt)         GL       COBBLE (65-256 mm) (12 pts)       CAY or HARDPAN (0 pt)         GL       COBBLE (65-266 mm) (12 pts)       CAY or HARDPAN (0 pt)         GL       CAR Ver L(244 mm) (9 pts)       CAY or HARDPAN (0 pt)         Total of Percentages of<br>Bidr Stabs, Boulder, Cobble, Bedrock       (A)       CA         Saccome 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<br>evaluation. Avoid plumpe pools from read culvers or storm water pipes)       (Check ONLY one box):         > 30 centimeters [20 pts]       S cm (5 pts)       S cm (5 pts)         > 30 contimeters [21 pts]       S cm (5 pts)       NO WATER OR MOIST CHANNEL [0 pts]         > 40 meters (~ 13) [30 ptb)       S cm (5 pts)       NO WATER OR MOIST CHANNEL [0 pts]         > 30 m (> 9 77 - 4 67) [20 pts]       S cm (5 3 3°) [5 pts]       S cm (6 3 3°) [5 pts]         > 40 meters (~ 13) [30 ptb)       S cm (10 cultur)       AVERAGE BANKFULL WIDTH (meters)         COMMENTS       Maximum zone completed       RIPARIAN ZONE AND FLOODPLAIN QUALITY         A metas (20 mb)  | (Max of 32). Add total number   | of significant substrate   | e types found (Max of 8). Final metric  | score is sum of boxes A & B.  | M           |
| Dock       Normation       Fine Detrictures (3 pits)         COBBLE (65-256 nm) (12 pits)       COBBLE (65-256 nm) (12 pits)       CLAY or HARDPAN (0 pt)         GRAVEL (2-44 nm) (9 pts)       COBBLE (65-256 nm) (12 pts)       CLAY or HARDPAN (0 pt)         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 read culverts or stom water pipes)       (Check ONL Y one box):         > 30 centimeters [20 pts]       So (15 pts)       So (15 pts)         > 30 centimeters [21 pts]       So (15 pts)       So (15 pts)         > 40 meters (> 13) [30 pts]       So (15 pts)       So (15 pts)         > 40 meters (> 13) [30 pts]       So (15 pts)       No WATER OR MOIST CHANNEL [0 pts]         > 40 meters (> 13) [30 pts]       So (15 pts)       No WATER OR MOIST CHANNEL [0 pts]         > 40 meters (> 13) [30 pts]       So (15 pts)       So (15 pts)         COMMENTS       MAXIMUM POOL DEPTH (centimeters):       So (15 pts)         COMMENTS       MAXIMUM POOL DEPTH (centimeters):       So (15 pts)         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0 pts]       So (16 pts)         COMMENTS       MAXIMUM POOL DEPTH (centimeters):       So (16 pts)         COMMENTS       MAXIMUM POOL DEPTH (centimeters):       So (16 pts)         COMMENTS       A  | BLDR SLABS [16 pts]   |  | SILT [3 pt]   | LO  | P           |
| Decomposition       CLAY or HARDPAN [0 pt]         GRAVEL (2-64 mm) [0 pts]       GRAVEL (2-64 mm) [0 pts]         SAND (2-2mm) [0 pts]       GRAVEL (2-64 mm) [0 pts]         Total of Percentages of<br>Bidr Slabs, Boulder, Cobble, Bedrock       GRAVEL (2-64 mm) [0 pts]         Total of Percentages of<br>Bidr Slabs, Boulder, Cobble, Bedrock       GRAVEL (2-64 mm) [0 pts]         Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of<br>evaluation. Avoid plunge pools from road culverts or storm water pipes)       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<br>evaluation. Avoid plunge pools from road culverts or storm water pipes)       Cone (15 pts]         > 30 centimeters [20 pts]       S cm - 10 cm (15 pts]       S cm - 10 cm (15 pts]         > 22.5 - 30 cm [30 pts]       S cm [5 pts]       MAXIMUM POOL DEPTH (centimeters):         BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box):       S cm (15 gt pts]         > 4.0 meters (131 [30 pts]       S 1.0 m (15 m (5 °3 °3 - 4 °8) [15 pts]       S 1.0 m (5 °3 °3 - 4 °8) [15 pts]       S 1.0 m (5 °3 °3 - 4 °8) [15 pts]         > 3.0 m -4.0 m (-9 °713) [25 pts]       AVERAGE BANKFULL WIDTH (meters)       S 1.0 m (5 °3 °3 - 4 °8) [15 pts]       S 1.0 m (5 °3 °3 - 4 °8) [15 pts]         > 3.0 m -4.0 m (-9 °74 °8) [20 pts]       Commentare forest, Shrub or Old<  | and the second se   | pts]   |   |   | Su          |
| Governments       Conservation Tillage         Image: Start Conservation Tillage       Image: Start Conservation Tillage         Image: Start Construction       Image: Start Conserv  |   | pts] 20  | CLAY or HARDPAN   | A MARK AND A   | M           |
| SAUD (52,1111) [6 JL3]       Image: Comparison of the second |   | 1 30   |   | 10  | 17          |
| Bidr Slabs, Boulder, Cobble, Bedrock       Image: Conce 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 evaluation. Avoid plunge pools from road culverts or storm water, pipes)       > 5 cm -10 cm (15 pts)         > 30 centimeters [20 pts]       > 5 cm -10 cm [15 pts]       > 5 cm -10 cm [15 pts]         > 10 - 22.5 cm [25 pts]       No WATER OR MOIST CHANNEL [0 pts]       Image: Chance (NUY one box):         > 40 meters (> 13) [30 pts]       > 10 m - 15 m (> 3'' - 4' Ft) [15 pts]       Image: Chance (NUY one box):         > 40 meters (> 13) [30 pts]       > 10 m - 15 m (> 3'' - 4' Ft) [15 pts]       Image: Chance (NUY one box):         > 40 meters (> 13) [30 pts]       > 10 m - 15 m (> 3'' - 4' Ft) [15 pts]       Image: Chance (NUY one box):         > 40 meters (> 13) [30 pts]       > 10 m - 15 m (> 3'' - 4' Ft) [15 pts]       Image: Chance (NUY one box):         > 40 meters (> 13) [30 pts]       > 10 m - 15 m (> 3'' - 4' Ft) [15 pts]       Image: Chance (NUY one box):         > 40 meters (> 13) [30 pts]       > 10 m - 15 m (> 3'' - 4' Ft) [15 pts]       Image: Chance (NUY one box):         > 40 meters (> 10 m Classer (> 10 m   | <u></u>   |  |   | (B)   | 17          |
| Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water, pipes)       (Check ONLY one box):         > 30 centimeters [20 pts]       > 5 cm - 10 cm [15 pts]       > 5 cm (5 pts]         > 10 - 22.5 cm [30 pts]       > 5 cm - 10 cm [15 pts]       > 6 cm [5 pts]         > 10 - 22.5 cm [30 pts]       > 10 - 22.5 cm [30 pts]       > 6 cm [5 pts]         > 10 - 22.5 cm [30 pts]       > 10 - 22.5 cm [30 pts]       > 10 m - 1.5 m (> 3'3' - 4'8') [15 pts]         > 20 commetry       (Check ONLY one box):       > 4.0 meters (> 13) [30 pts]       > 1.0 m - 1.5 m (> 3'3' - 4'8') [15 pts]         > 3.0 m (> 9'7 - 4'8') [20 pts]       > 1.0 m - 1.5 m (> 3'3' - 4'8') [15 pts]       > 1.0 m (S'3'3' - 18') [15 pts]         > 3.0 m (> 9'7 - 4'8') [20 pts]       > 1.0 m (S'3'3' [15 pts]       > 1.0 m (S'3'3' [15 pts]         commetry       Conservation Tillage       This information must also be completed         RIPARIAN WIDTH       ELOODPLAIN QUALITY       AVERAGE BANKFULL WIDTH (meters)         L       R       (Most Predominant per Bank)       L         R       (Per Bank)       L       R       (Most Predominant per Bank)       L         Nore       (Per Bank)       L       R       (Dep Predominant per Bank)       L       R         Nore  | Bldr Slabs, Boulder, Cobble, B  | No. AND AND A REAL PROPERTY OF ANY AND ANY | "21   | 5   | 11 '        |
| evaluation. Avoid plunge pools from road culverts or storm water pipes)       (Check ONLY one box):         > 30 centimeters [20 pts]       > 5 cm - 10 cm [15 pts]         > 22.5 - 30 cm [30 pts]       > 6 cm [5 pts]         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0 pts]         COMMENTS       MAXIMUM POOL DEPTH (centimeters):         BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box):         > 4.0 meters (> 13') [30 pts]       > 1.0 m - 1.5 m [> 3'3" - 4'8") [15 pts]         > 3.0 m · 4.0 m (> 9'7 - 13') [25 pts]       > 1.0 m (\$ 3'3") [5 pts]         > 1.0 m · 2 9'7 - 4'8") [20 pts]       AVERAGE BANKFULL WIDTH (meters)         COMMENTS       AVERAGE BANKFULL WIDTH (meters)         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY         X (Per Bank)       L R         (Most Predominant per Bank)       L R         Conservation Tillage         Immature Forest, Shrub or Old       Urban or industrial         Open Pasture, Row         Crop         None       Fenced Pasture         COMMENTS   |   |  |   |   | 1           |
| > 30 centimeters [20 pts]       > 5 cm - 10 or [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]         COMMENTS       MAXIMUM POOL DEPTH (centimeters):         BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box):         > 4.0 meters (-13) [30 pts]       > 1.0 m - 1.5 m (> 3' 3' - 4' 8') [15 pts]         > 3.0 m / 9 7' - 4' 8') [20 pts]       > 1.0 m (≤ 3' 3') [5 pts]         > 1.5 m - 3.0 m (> 9' 7' - 4' 8') [20 pts]       > 1.0 m (≤ 3' 3') [5 pts]         COMMENTS       AVERAGE BANKFULL WIDTH (meters)         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY       chNOTE: River Left (L) and Right (R) as looking downstream character for the forest, Weiland         I R       (Per Bank)       L R         Wide > 10m       Immature Forest, Shrub or Old         I Moderate 5-10m       Immature Forest, Shrub or Old         Narrow <5m       Residential, Park, New Field         None       Fenced Pasture         None       Fenced Pasture         Sthourget (At Time of Evaluation)       (Check ONLY one box):         Stream Flowing       Moist Channel, isolated pools, no flow (Intermittent)         Dry channel, no water (Ephemeral)       CoMMENTS   | Maximum Pool Depth (Measu<br>evaluation. Avoid plunge pools   | from road culverts or  | ol depth within the 61 meter (200 fr<br>storm water, pipes) (Check ONLY   | one box):   | N           |
| > 10 - 22.5 cm [25 pts]       Image: No WATER OR MOIST CHANNEL [0 pts]         COMMENTS       MAXIMUM POOL DEPTH (centimeters):         BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box):         > 4.0 meters (> 13) [30 pts]       > 10 m - 1.5 m (> 3' 3' - 4' 8') [15 pts]         > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts]       > 10 m (> 3' 3' - 4' 8') [15 pts]         > 1.5 m - 3.0 m (> 9' 7' - 4' 8') [20 pts]       AVERAGE BANKFULL WIDTH (meters)         COMMENTS         AVERAGE BANKFULL WIDTH (meters)         Image: Residential period       RiPARIAN ZONE AND FLOODPLAIN QUALITY         XNOTE: River Left (L) and Right (R) as looking downstream.*       RiPARIAN WIDTH         Image: Residential period       Conservation Tillage         Image: None       Image: Row         Image: None       Field         Narrow <5m   | > 30 centimeters [20 pts]   | 1200   | > 5 cm - 10 cm [15  | pts]  |             |
| BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box):<br>> 4.0 meters (> 13) [30 ptis]         > 4.0 meters (> 13) [30 ptis]       > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 ptis]         > 1.5 m - 3.0 m (> 9' 7' - 4' 8") [20 ptis]       > 1.0 m (> 3' 3" - 4' 8") [15 ptis]         COMMENTS       AVERAGE BANKFULL WIDTH (meters)         RIPARIAN ZONE AND FLOODPLAIN QUALITY       AVERAGE BANKFULL WIDTH (meters)         RIPARIAN WIDTH       FLOODPLAIN QUALITY         Vide >10m       Mature Forest, Wetland         Wide >10m       Immature Forest, Shrub or Old         Wide >10m       Immature Forest, Shrub or Old         Narrow <5m   | The second   | 12 million   |   | DIST CHANNEL [0 pts]  | 114         |
| > 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' - 4' 8') [25 pts]       > 1.0 m (< 3' 3') [5 pts]         > 1.5 m - 3.0 m (> 9' 7' - 4' 8') [20 pts]       AVERAGE BANKFULL WIDTH (meters)         COMMENTS         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY 'ANOTE: River Left (L) and Right (R) as looking downstream 'A'         RIPARIAN WIDTH       FLOODPLAIN QUALITY 'ANOTE: River Left (L) and Right (R) as looking downstream 'A'         Wide >10m       Immature Forest, Wetland       Conservation Tillage         Wide >10m       Immature Forest, Shrub or Old       Urban or Industrial         Moderate 5-10m       Immature Forest, Shrub or Old       Urban or Industrial         Narrow <5m       Mature Forest Pasture       Open Pasture, Row Crop         None       Fenced Pasture       Mining or Construction         Stream Flowing       Moist Channel, isolated pools, no flow (Intermittent)         Subsurface flow with isolated pools (Interstitial)       Dry channel, no water (Ephemeral)         COMMENTS       1.0       2.0       3.0   | COMMENTS  |  | MAXIMUM P   | OOL DEPTH (centimeters):  | 1.          |
| > 4.0 meters (> 13) [30 pts]       > 1.0 m - 1.5 m (> 3' 3' - 4' 8'') [15 pts]         > 3.0 m - 4.0 m (> 8' 7' - 13') [25 pts]       > 1.0 m (> 3' 3'') [5 pts]         > 1.5 m - 3.0 m (> 9' 7' - 4' 8'') [20 pts]       AVERAGE BANKFULL WIDTH (meters)         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream At RIPARIAN WIDTH         RIPARIAN WIDTH       FLOODPLAIN QUALITY         Wide >10m       Mature Forest, Wetland         Moderate 5-10m       Immature Forest, Shrub or Old         Field       Urban or Industrial         Narrow <5m   | BANK FULL WIDTH (Measur   | ed as the average of   | 3-4 measurements) (Cheo   | k ONLY one box):  | 13          |
| > 1.5 m - 3.0 m (> 9' 7' - 4' 8') [20 pts]         AVERAGE BANKFULL WIDTH (meters)         COMMENTS         AVERAGE BANKFULL WIDTH (meters)         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY INOTE: River Left (L) and Right (R) as looking downstreams?         RIPARIAN WIDTH         L       R         (Per Bank)       L         Moderate 5-10m       Mature Forest, Wetland         Moderate 5-10m       Immature Forest, Shrub or Old         Moderate 5-10m       Immature Forest, Shrub or Old         Narrow <5m  | > 4.0 meters (> 13') [30 pts]   |  | > 1.0 m - 1.5 m (> 3  |   |             |
| AVERAGE BANKFULL WIDTH (meters)         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY         RIPARIAN ZONE AND FLOODPLAIN QUALITY       PNOTE: River Left (L) and Right (R) as looking downstream of RIPARIAN WIDTH         RIPARIAN WIDTH       FLOODPLAIN QUALITY       PNOTE: River Left (L) and Right (R) as looking downstream of RIPARIAN WIDTH         RIPARIAN WIDTH       FLOODPLAIN QUALITY       Protection of Riper Bank)       L R         Narrow Nide > 10m       Mature Forest, Wetland       Conservation Tillage         Moderate 5-10m       Immature Forest, Shrub or Old       V Urban or Industrial         Moderate 5-10m       Immature Forest, Shrub or Old       V Urban or Industrial         Narrow <5m   |   |  |   |   | 11          |
| RIPARIAN ZONE AND FLOODPLAIN QUALITY         RIPARIAN WIDTH       FLOODPLAIN QUALITY         Image: Right (R) as looking downstream if the second construction in the second construction is second construction is second construction in the second construction is second construction.   | COMMENTS  |  | AVERAGE B   |   | <b>1</b> .[ |
| RIPARIAN ZONE AND FLOODPLAIN QUALITY         RIPARIAN WIDTH       FLOODPLAIN QUALITY         Mature Forest, Shrub or Old       Conservation Tillage         Moderate 5-10m       Immature Forest, Shrub or Old       Urban or Industrial         Narrow <5m  |   |  |   |   |             |
| RIPARIAN WIDTH       FLOODPLAIN QUALITY         L       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         Image:  | PIPAPIAN ZONE AND   |  |   |   |             |
| Image: Stream Flowing Subsurface flow with isolated pools (Interstitial)       Image: Stream Flowing Subsurface flow with isolated pools (Interstitial)       Image: Stream Flow Stream S          |   | FLOOD  | PLAIN QUALITY   |   |             |
| Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Sinuosity (Number of bends per 61   | RIPARIAN WIDTH  |  |   | Conservation Tillag   | e           |
| Narrow <5m       New Field       Open Pasture, Row Crop         None       Image: Commentation of the  | L R (Per Bank)  |  | Matale i Glost, Wethind   |   |             |
| None       Fenced Pasture       Mining or Construction         COMMENTS  | L R (Per Bank)<br>Wide >10m   |  | Immature Forest, Shrub or Old   | Urban or Industrial   |             |
| COMMENTS         FLOW REGIME (At Time of Evaluation) (Check ONLY one box):         Stream Flowing       Moist Channel, isolated pools, no flow (Intermittent)         Subsurface flow with isolated pools (Interstitial)       Dry channel, no water (Ephemeral)         COMMENTS       SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):         None       1.0       2.0       3.0  | L R (Per Bank)<br>Wide >10m<br>Moderate 5-10m   |  | Immature Forest, Shrub or Old<br>Field  | Onen Besture Ber  | v           |
| Stream Flowing       Image: Moist Channel, isolated pools, no flow (Intermittent)         Subsurface flow with isolated pools (Interstitial)       Image: Moist Channel, isolated pools, no flow (Intermittent)         COMMENTS       Dry channel, no water (Ephemeral)         SINUOSITY (Number of bends per 61 m (200 ft) of channel)       (Check ONLY one box):         None       1.0       2.0       3.0   | RIPARIAN WIDTH         Image: Riper Stress         Image: Riper Stres <td><b>\$</b></td> <td>Immature Forest, Shrub or Old<br/>Field<br/>Residential, Park, New Field</td> <td>Open Pasture, Roy<br/>Crop</td> <td></td>  | <b>\$</b>  | Immature Forest, Shrub or Old<br>Field<br>Residential, Park, New Field  | Open Pasture, Roy<br>Crop   |             |
| COMMENTS   | L       R       (Per Bank)         Image: Description of the state st | <b>\$</b>  | Immature Forest, Shrub or Old<br>Field<br>Residential, Park, New Field  | Open Pasture, Roy<br>Crop   |             |
| 12 None 1.0 2.0 3.0  | RIPARIAN WIDTH<br>L R (Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None<br>COMMENTS<br>FLOW REGIME (At Til  | 00<br>ØØ   | Immature Forest, Shrub or Old<br>Field<br>Residential, Park, New Field<br>Fenced Pasture<br>Check ONLY one box):                  | Open Pasture, Rov<br>Crop<br>D D Mining or Construct  | tion        |
| 12 None 1.0 2.0 3.0  | RIPARIAN WIDTH<br>L R (Per Bank)<br>Wide >10m<br>Moderate 5-10m<br>Narrow <5m<br>None<br>COMMENTS<br>FLOW REGIME (At Till<br>Stream Flowing<br>Subsurface flow with iso   | me of Evaluation) (C   | Immature Forest, Shrub or Old<br>Field<br>Residential, Park, New Field<br>Fenced Pasture<br>Check ONLY one box):                  | Open Pasture, Roy<br>Crop<br>Mining or Construct<br>Mining or Construct<br>Mining or Construct  | tion        |
|  | RIPARIAN WIDTH         R       (Per Bank)         Wide >10m         Moderate 5-10m         Narrow <5m   | me of Evaluation) (Collated pools (Interstiti                                  | Immature Forest, Shrub or Old<br>Field<br>Residential, Park, New Field<br>Fenced Pasture<br>Check ONLY one box):<br>al) Dry chann | Open Pasture, Roy<br>Crop<br>Mining or Construct<br>Mining o | tion        |

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| ADDITIONAL STREAM INFORMATION (This  | Information Must Also be Complete       | ted):   |   |
|--|---|---|---|
| QHEI PERFORMED? - DYes   | No QHEI Score (If Ye                    | s, Attach Completed QHEI Form)  |   |
| DOWNSTREAM DESIGNATED USE<br>WWH Name: Big Walnut                                  | (s) cleve                               | Distance from Evaluated Stream  | i |
|  |   | Distance from Evaluated Stream  |   |
|  |   |   |   |
| MAPPING: ATTACH COPIES OF MA   | 0110                                    | RSHED AREA. CLEARLY MARK THE SITE LOCATION  |   |
| County: Franklin   |   | Map Page: NRCS Soil Map Stream Order<br>Nahanna   |   |
| MISCELLANEOUS  |   |   |   |
| Base Flow Conditions? (Y/N): Date of   | of last precipitation: 2252             | Z Quantity: 0.8   |   |
| Photograph Information:  |   |   |   |
| Elevated Turbidity? (Y/N): Car   |   |   |   |
| Nere samples collected for water chemistry?  | (Y/N): (Note lab sample no.             | or id. and attach results) Lab Number:  |   |
| Field Measures: Temp (°C) Disso  | olved Oxygen (mg/l) nH (5               | S.U.) Conductivity (µmhos/cm)   |   |
|  |   |   |   |
| is the sampling reach representative of the sti                                    | ream (Y/N) 1 If not, please expla       | ain:  |   |
| Additional comments/description of pollution i BIOTIC EVALUATION Performed? (Y/N): | d all observations. Voucher collections | optional. NOTE: all voucher samples must be labeled with the site<br>n the Primary Headwater Habitat Assessment Manual) |   |
| Fish Observed? (V/N) N Voucher?(V/   | N) N Salamanders Observed?              | NUN Vaustas (VIAU)  |   |
| Frogs or Tadpoles Observed? (Y/N)  | bucher? (Y/N) Aquatic Macroinv          | r/N) N<br>ertebrates Observed? (Y/N) Voucher? (Y/N) V   |   |
| Comments Regarding Biology:  |   |   |   |
|  |   |   |   |
|  |   | EAM REACH (This <u>must</u> be completed):<br>nation and a narrative description of the stream's location               |   |
|  |   |   |   |
| 50   | PC, barl gro                            | ind   | ( |
| FLOW ->  |   | 6101  |   |
|  | う                                       | 12131   |   |
|  |   | 12/2t   | T |
|  | Slope Shr                               | ito   |   |
|  | sale out                                | UP  |   |
|  | BUWU From Bon                           |   | _ |

October 24, 2002 Revision

PHWH Form Page - 2

| OTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct         REAM CHANNEL       NONE / NATURAL CHANNEL       RECOVERED       RECOVERING       RECENT OR NO RECOVERING         DDIFICATIONS:       Wank & Zech         SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes<br>(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.         PE       BLDR SLABS [16 pts]       PERCENT       TYPE       SILT [3 pt]         BOULDER (>256 mm) [16 pts]       PERCENT       TYPE       SILT [3 pt]       PERCENT         BEDROCK [16 pt]       CLAY or HARDPAN [0 pt]       D       CLAY or HARDPAN [0 pt]       D         GRAVEL (2-64 mm) [9 pts]       CO       ARTIFICIAL [3 pts]       TO         Total of Percentages of<br>Bldr Slabs, Boulder, Cobble, Bedrock       CO       (A)       (B)       (B)   |  |  | HHEI Score  | uation (FOM HMENT<br>(sum of metrics 1, 2, 3) :  |
|--|--|--|---|--|
| ATE  |  | HP   | 2 1 1 - 17  | Langth 0216-24   |
| ATE  | SITE   | NUMBER DOOL  | RIVER BASIN SCOT  |  |
| NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct<br>TREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVE<br>IDENTIFY (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes<br>(Max of 32). Add total number of significant substrate present. Check ONLY two predominant substrate TYPE boxes<br>(Max of 32). Add total number of significant substrate present. Check ONLY two predominant substrate TYPE boxes<br>(Max of 32). Add total number of significant substrate present. Check ONLY two predominant substrate TYPE boxes<br>(Max of 32). Add total number of significant substrate present. Check ONLY two predominant substrate TYPE boxes<br>(Max of 32). Add total number of significant substrate present. Check ONLY on HARDPAN 10 pd 1<br>BULD REP (256 mm) 112 pts)<br>CLAY or HARDPAN 10 pd 1<br>CLAY OF HARDPAN 10 pd 1<br>CLAY or HARDPAN 10 pd 1<br>CLAY OF HARDPAN 1 | ATE 32/22 SCORER   | REL CC   | DMMENTS   | IVER CODE RIVER MILE   |
| TREAM CHANNEL       INONE / NATURAL CHANNEL       IRECOVERED       RECOVERING       RECENT OR NO RECOVERING         NODIFICATIONS:       WARWE & ZCM         SUBSTRATE (Estimate parcent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes<br>(Max of 32). Add total number of significant substrate types found (Max of 3). Final metric score is sum of boxes A & B.         YPE       BUDR SLABS (16 pts)       PERCENT       PERCENT         BUDR SLABS (16 pts)       PERCENT       PERCENT       PERCENT         BUDR SLABS (16 pts)       ZO       CLAY or HARDPAN 10 pd       Pd         SADU (24 cmm) (2 pts)       ZO       ARTIFICIAL (3 pts)       ZO       Recentrous (3 pts)         SADU (24 cmm) (2 pts)       ZO       ARTIFICIAL (3 pts)       ZO       Recentrous (2 pts)       ZO         SADU (24 cmm) (2 pts)       ZO       CAY or HARDPAN 10 pd       Pd       ZO       Recentrous (2 pts)       ZO       Recentrous (2 pts)       ZO       COMENTS       ZO       GO       Recentrous (2 pts)       ZO       GO       ZO       GO       ZO       GO </td <td></td> <td></td> <td></td> <td></td>  |  |  |   |  |
| NODIFICATIONS:       WARNE & 200'         SUBSTRATE (Estimate percent of every type of substrate types found (Max of 8), Final metric score is sum of boxes A & 8.       PERCENT         BUR SLABS (16 pts)       PERCENT       PERCENT         BUDKDER (>256 mm) (16 pts)       PERCENT       PERCENT         BEDR SLABS (16 pts)       PERCENT       PERCENT         SUBDER (>256 mm) (12 pts)       ZO       CLAY or HARDPAN (10 pt)         SAND (<2 mm) (8 pts)   |  |  | The second   | a set of the set of th |
| SUBSTRATE (Estimate percent of every type of substrate types found (Max of 8), Final metric score is sum of boxes A & 8.         VPE         BLDR SLABS [16 pts]       PERCENT         DOULDER (256 mm) [16 pts]       DERCENT         DE BEDROCK (16 pt)       DERCENT         DE GRAVEL (264 mm) [19 pts]       DE         SLM (2 mm) [6 pts]       DE         DRE 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 evaluation. Avoid plunge pools from road culverts or stom water pipes)         > 20 confinitients [20 pts]       So confinitients [20 pts]         > 20 confinitients [20 pts]       So m 10 m [15 pts]         > 20 confinitients [20 pts]       So m 10 m [15 pts]         > 20 confinitients [20 pts]       So m 10 m [15 pts]         > 20 confinitients [20 pts]       So m 10 m [15 pts]         > 20 confinitients [20 pts]       So m 10 m [15 pts]         > 20 confinitients [20 pts]       NO wATRO RO MIST CHANNEL [0 pts]         > 20 confinitients [20 pts]       So m 10 m [15 pts]         > 20 confinitients [20 pts]       So m 10 m [15 pts]         > 20 confinitients [20 pts]       NO WATRO RO MIST CHANNEL [0 pts]         > 20 m -40 m (9 97 - 48 r) [20 pts]       So m 10 m [15 pts] <td></td> <td></td> <td>and the second se</td> <td></td>   |  |  | and the second se   |  |
| (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.         PERCENT       TYPE         BLDR SLABS [16 pts]       PERCENT         BOULDER (>256 mm) [12 pts]       TO         SAND (<2 mm) [6 pts]   |  |  |   |  |
| PERCENT       TYPE         BLDR SLABS (16 pts)       PERCENT         BOULDER (>256 mm) (16 pts)       Image: Comparison of the pts of the pt of th   | (Max of 32). Add total num   | ercent of every type of a<br>ber of significant substrate  | substrate present. Check ONLY tw<br>te types found (Max of 8). Final metr   | to predominant substrate TYPE boxes ric score is sum of boxes A & B.   |
| BOULDER (>256 mm) [16 pts]       BEPRACKWOODY DEBRIS [3 pts]         BEDROCK (16 pt]       CLAY PACKWOODY DEBRIS [3 pts]         COBBLE (65-256 mm) [12 pts]       CO         GRAVEL (2-64 mm) [9 pts]       CO         SAND (<2 mm) [16 pts]  | TYPE   | PERCENT  | TYPE  | PERCENT  |
| COBBLE (6-256 mm) [12 pts]       Colored and the second  | BOULDER (>256 mm)  |  |   | Particular and the second s  |
| GRAVEL (2-64 mm) (9 pts)       Gamma (2-64 mm) (9 pts)       Gamma (2-64 mm) (9 pts)         Total of Percentages of<br>Btdr Sibes, Boulder, Cobble, Bedrock       Gamma (2-64 mm) (9 pts)       Gamma (2-64 mm) (9 pts)         Total of Percentages of<br>Btdr Sibes, Boulder, Cobble, Bedrock       Gamma (2-64 mm) (9 pts)       Gamma (2-64 mm) (9 pts)         ORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:       Total NUMBER OF 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<br>evaluation. Avoid plunge pools from road culverts or storm water pipes)       (Check ONLY one box):         > 30 certimeters [20 pts]       S cm (5 pts)       S cm (5 pts)         > 10 - 22.5 cm [35 pts]       MAXIMUM POOL DEPTH (centimeters):       Image: S cm (5 pts)         S do meters (> 13) [30 pts]       S 10 m - 1.5 m (> 3'3' - 4'8') [15 pts]       S 10 m - 1.5 m (> 3'3' - 4'8') [15 pts]         > 30 m (> 97' - 4'8') [20 pts]       S 10 m - 1.5 m (> 3'3' - 4'8') [15 pts]       S 10 m (> 3'3') [5 pts]         > 10 m (> 97' - 4'8') [20 pts]       Maximo (Maxima (Maxim (Maxima (Maxima (Maxima (Maxima (Maxima (Maxi   |  | 75   |   |  |
| SAND (<2 mm) [6 pts]   |  |  |   | N [0 pt]   |
| Total of Percentages of<br>Bidr Slabs, Boulder, Cobble, Bedrock       (A)       (A)       (B)       (B)         DRE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:       TOTAL NUMBER OF SUBSTRATE TYPES:       (B)       (C)         Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of<br>evaluation. Avoid plunge pools from road culverts or storm water pipes)       (Check ONLY one box):       > 5 cm - 10 cm [15 pts]         > 30 centimeters [20 pts]       > 5 cm - 15 pts]       (Check ONLY one box):       (C)         > 30 centimeters [20 pts]       (Check ONLY one box):       (C)         > 22.5 - 30 cm [30 pts]       (C)       (C)       (C)         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0 pts]       (C)         COMMENTS       MAXIMUM POOL DEPTH (centimeters):       (C)         Som -4.0 m (>9 7' - 13') [25 pts]       > 1.0 m - 1.5 m (> 3' 3' - 4' 8') [15 pts]       > 1.0 m (> 3' 3' - 4' 8') [15 pts]         > 3.0 m -4.0 m (>9 7' - 4' 8') [20 pts]       (C) conservation Tillage       (Conservation Tillage         This information must also be completed       RIPARIAN ZONE AND FLOODPLAIN QUALITY       (A) Most Predominant per Bank)       (C)       (C)       (C)         L R       (P Brank)       L R       (R) Mature Forest, Shrub or Old       (V)       Urban or industrial         Moderate 5-10m   |  |  |   | 1 70   |
| Bidr Slabs, Boulder, Cobble, Bedrock       Image: Cobble, Bedrock <td>Total of Percentages</td> <td>of 20</td> <td></td> <td>(B)</td>   | Total of Percentages   | of 20  |   | (B)  |
| Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):       > 30 centimeters [20 pts]         > 30 centimeters [20 pts]       > 5 cm - 10 cm [15 pts]       > 5 cm - 10 cm [15 pts]         > 22.5 - 30 cm [30 pts]       > 5 cm - 10 cm [15 pts]       > 5 cm - 10 cm [15 pts]         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0 pts]       Image: Commentation of the pts]         COMMENTS       MAXIMUM POOL DEPTH (centimeters):       Image: Commentation of the pts]         > 4.0 m (> 9' 7' - 13) [25 pts]       > 1.0 m - 1.5 m (> 3' 3' - 4' 8') [15 pts]         > 3.0 m - 4.0 m (> 9' 7' - 4' 8') [20 pts]       > 1.0 m (s' 3' 3') [5 pts]         > 1.0 m - 4.0 m (> 9' 7' - 4' 8') [20 pts]       > 1.0 m (s' 3' 3') [5 pts]         > 0 cm MENTS       AVERAGE BANKFULL WIDTH (meters)         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY         L       R       (Most Predominant per Bank)       L         Moderate 5-10m       Immature Forest, Shrub or Old       Open Pasture, Row         Crop       None       Fenced Pasture       Open Pasture, Row         COMMENTS       Stream Flowing       Mature Forest, Shrub or Old       Open Pasture, Row         COMMENTS       Fenced  | Bldr Slabs, Boulder, Cobble  | e, Bedrock   | " Z   | "5   |
| evaluation. Avoid plunge pools from road culverts or storm water pipes)       (Check ONLY one box):         > 30 centimeters [20 pts]       > 5 cm -10 cm [15 pts]         > 22.5 - 30 cm [30 pts]       > 5 cm -10 cm [5 pts]         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0 pts]         COMMENTS       MAXIMUM POOL DEPTH (centimeters):         BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONL Y one box):         > 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'' 4'') [15 pts]         > 3.0 m -4.0 m (> 9' 7' - 4'' 8') [20 pts]       > 1.0 m (> 3' 3'' 4'') [15 pts]         > 1.0 m (> 9' 7' - 4'' 8') [20 pts]       AVERAGE BANKFULL WIDTH (meters)         COMMENTS       AVERAGE BANKFULL WIDTH (meters)         This information must also be completed       RIPARIAN ZONE AND FLOODPLAIN QUALITY         COMMENTS       AVERAGE BANKFULL WIDTH (meters)         L R (Per Bank)       L R (Most Predominant per Bank)       L R         Wide >10m       Mature Forest, Shrub or Old       YO         Wide >10m       Immature Forest, Shrub or Old       YO         Wide >10m       Field       Open Pasture, Row Crop         None       Fenced Pasture       Mining or Construction         COMMENTS       <  | DRE OF TWO MOST PREDOMI  | NATE SUBSTRATE TYP   | PES: TOTAL NUMB   | BER OF SUBSTRATE TYPES:  |
| > 30 centimeters [20 pts]       > 5 cm - 10 cm [15 pts]         > 22.5 - 30 cm [30 pts]       < 5 cm [5 pts]   | Maximum Pool Depth (Me   | easure the maximum po  | ool depth within the 61 meter (200  | ft) evaluation reach at the time of  |
| 22.5 - 30 cm [30 pts] 30 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] NO WATER OR MOIST CHANNEL [0 pts] NO WATER OR MOIST CHANNEL [0 pts] COMMENTS MAXIMUM POOL DEPTH (centimeters): MAXIMUM POOL DEPTH (centimation inclustrial) MAXIMUM POOL DEPTH (centimeters): MAXIMU   |  | ools from road culverts or   |   |  |
| COMMENTS       MAXIMUM POOL DEPTH (centimeters):         MAXIMUM POOL DEPTH (centimeters):         >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' - 4' 8') [15 pts]         > 3.0 m - 4.0 m (> 9' 7' - 4' 8') [20 pts]       > 1.0 m (< 3' 3') [5 pts]  | > 22.5 - 30 cm [30 pts]  |  | 5 cm [5 pts]  |  |
| MAXIMUM POOL DEPTH (centimeters):         MAXIMUM POOL DEPTH (centimeters):         BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box):         > 4.0 meters (> 13') [30 pts]       > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]       > 1.0 m (≤ 3' 3") [5 pts]         > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts]       > 1.0 m (≤ 3' 3") [5 pts]       > 1.0 m (≤ 3' 3") [5 pts]         > 1.5 m - 3.0 m (> 9' 7' - 4' 8') [20 pts]       AVERAGE BANKFULL WIDTH (meters)       Image: state of the state   | > 10 - 22.5 cm [25 pts]  |  | NO WATER OR M   |  |
| > 4.0 meters (> 13') [30 pts]       > 1.0 m - 1.5 m (> 3' 3' - 4' 8') [15 pts]         > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts]       > 1.0 m (> 3' 3'') [5 pts]         > 1.5 m - 3.0 m (> 9' 7' - 4' 8') [20 pts]       AVERAGE BANKFULL WIDTH (meters)         COMMENTS         AVERAGE BANKFULL WIDTH (meters)         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆         RIPARIAN WIDTH         L       R         (Per Bank)       L         Wide >10m       Mature Forest, Wetland         Immature Forest, Shrub or Old       I/SU         Wide >10m       Immature Forest, Shrub or Old         Narrow <5m   | COMMENTS   |  | MAXIMUM   | POOL DEPTH (centimeters):  |
| > 4.0 meters (> 13') [30 pts]       > 1.0 m - 1.5 m (> 3' 3' - 4' 8') [15 pts]         > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts]       > 1.0 m (> 3' 3'') [5 pts]         > 1.5 m - 3.0 m (> 9' 7' - 4' 8') [20 pts]       AVERAGE BANKFULL WIDTH (meters)         COMMENTS         AVERAGE BANKFULL WIDTH (meters)         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆         RIPARIAN WIDTH         L       R         (Per Bank)       L         Wide >10m       Mature Forest, Wetland         Immature Forest, Shrub or Old       I/SU         Wide >10m       Immature Forest, Shrub or Old         Narrow <5m   | BANK FULL WIDTH (Mea   | sured as the average of  | f 3-4 measurements) (Ch   | eck ONLY one box):   |
| > 1.5 m - 3.0 m (> 9 7 - 4*8') [20 pts]         AVERAGE BANKFULL WIDTH (meters)         This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A         RIPARIAN WIDTH       FLOODPLAIN QUALITY         L       R         (Per Bank)       L         Wide >10m       Mature Forest, Wetland         Moderate 5-10m       Immature Forest, Shrub or Old         Moderate 5-10m       Immature Forest, Shrub or Old         Narrow <5m  |  | a los a seconda -  | > 1.0 m - 1.5 m (>  | 3' 3" - 4' 8") [15 pts]  |
| This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream A         RIPARIAN WIDTH       FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream A         Image: Riparity of the state   |  |  | <10m (< 2' 2") [  | 5 pts]   |
| This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream A         RIPARIAN WIDTH       FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream A         Image: Riparity of the state   | > 3.0 m - 4.0 m (> 9' 7" - 13'   | A strategy was a series of the | s.om(s.o.o)].   |  |
| RIPARIAN ZONE AND FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream A         RIPARIAN WIDTH       FLOODPLAIN QUALITY         L       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         Image: Stress of the stress of t   | 3.0 m - 4.0 m (> 9' 7" - 13'<br>> 1.5 m - 3.0 m (> 9' 7" - 4' 1  | 8") [20 pts]   |   |  |
| RIPARIAN ZONE AND FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream A         RIPARIAN WIDTH       FLOODPLAIN QUALITY         L       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         Image: Imag   | <pre>3.0 m - 4.0 m (&gt; 9' 7" - 13' &gt; 1.5 m - 3.0 m (&gt; 9' 7" - 4' 1</pre>   | 8") [20 pts]   |   | BANKFULL WIDTH (meters)  |
| L       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         Image: Wide >10m       Image: Mature Forest, Wetland       Image: Mature Forest, Shrub or Old       Image: Wide >10m       Image: Wetland       Image: Wetland </td <td>3.0 m - 4.0 m (&gt; 9' 7" - 13'<br/>&gt; 1.5 m - 3.0 m (&gt; 9' 7" - 4' 1</td> <td>8") [20 pts]</td> <td>AVERAGE</td> <td></td>   | 3.0 m - 4.0 m (> 9' 7" - 13'<br>> 1.5 m - 3.0 m (> 9' 7" - 4' 1  | 8") [20 pts]   | AVERAGE   |  |
| Wide >10m       Mature Forest, Wetland       Conservation Tillage         Moderate 5-10m       Immature Forest, Shrub or Old       V       Urban or Industrial         Narrow <5m  | > 3.0 m         +4.0 m         (> 9' 7" - 13')           > 1.5 m         - 3.0 m         (> 9' 7" - 4')           COMMENTS   | 8") [20 pts]<br>This<br>AND FLOODPLAIN QUA   | AVERAGE<br>s informatión <u>must</u> also be comple<br>ALITY \$NOTE: River Left (L) ar  | eted   |
| Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old         Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old         Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old         Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Old       Open Pasture, Row         Immature Forest, Shrub or Forest, Shrub or Old       Immature Forest, Shrub or Old       Immature Forest, Shrub or Fore       Immature Forest, Shrub or Old       Open Pasture, Row       Crop         Immature Forest, Shrub or Old       Open Pasture, Row         Immature Forest, Shrub or Old       Immature  | > 3.0 m         -4.0 m         (> 9' 7" - 13')           > 1.5 m         -3.0 m         (> 9' 7" - 4')           COMMENTS  | 8") [20 pts]<br>This<br>AND FLOODPLAIN QUA<br><u>H FLOOD</u>   | AVERAGE<br>s informatión <u>must</u> also be comple<br>ALITY ANOTE: River Left (L) an<br>OPLAIN QUALITY   | ated<br>nd Right (R) as looking downstream 3   |
| Narrow <5m   | > 3.0 m - 4.0 m (> 9' 7" - 13')           > 1.5 m - 3.0 m (> 9' 7" - 4')           COMMENTS  | 8") [20 pts]<br>This<br>AND FLOODPLAIN QUA<br><u>H FLOOD</u><br>L R  | AVERAGE   | eted<br>nd Right (R) as looking downstream 3   |
| None       Fenced Pasture       Crop         COMMENTS       FLOW REGIME (At Time of Evaluation) (Check ONLY one box):       Moist Channel, isolated pools, no flow (Intermittent)         Stream Flowing       Moist Channel, isolated pools, no flow (Intermittent)       Dry channel, no water (Ephemeral)         COMMENTS       SINUOSITY (Number of bends per 61 m (200 ft) of channel)       (Check ONLY one box):         None       1.0       2.0       3.0  | 3.0 m - 4.0 m (> 9' 7" - 13')           > 1.5 m - 3.0 m (> 9' 7" - 4')           COMMENTS  | 8") [20 pts]<br>This<br>AND FLOODPLAIN QUA<br>H <u>FLOOD</u><br>L R<br>L R   | AVERAGE<br>s informatión <u>must</u> also be comple<br>ALITY ANOTE: River Left (L) ar<br>PLAIN QUALITY<br>(Most Predominant per Bank)<br>Mature Forest, Wetland<br>Immature Forest, Shrub or Old  | eted<br>nd Right (R) as looking downstream<br>L R<br>D Conservation Tillag   |
| COMMENTS       Image: Construction         FLOW REGIME (At Time of Evaluation) (Check ONLY one box):       Stream Flowing         Subsurface flow with isolated pools (Interstitial)       Image: Construction         COMMENTS       Image: Construction         Subsurface flow with isolated pools (Interstitial)       Image: Construction         COMMENTS       Image: Construction         Sinuosity (Number of bends per 61 m (200 ft) of channel)       (Check ONLY one box):         None       1.0         Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Check ONLY one box):         Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Check ONLY one box):         Sinuosity (Number of bends per 61 m (200 ft) of channel)       Image: Check ONLY one box):   | > 3.0 m - 4.0 m (> 9' 7" - 13')         > 1.5 m - 3.0 m (> 9' 7" - 4')         COMMENTS         RIPARIAN ZONE /         RIPARIAN WIDTI         L R (Per Bank)         O Wide >10m         O Moderate 5-10m                     | 8") [20 pts]<br>This<br>AND FLOODPLAIN QUA<br>H <u>FLOOD</u><br>L R<br>D<br>n<br>  | AVERAGE<br>a informatión <u>must</u> also be comple<br>ALITY ANOTE: River Left (L) ar<br>DPLAIN QUALITY<br>(Most Predominant per Bank)<br>Mature Forest, Wetland<br>Immature Forest, Shrub or Old<br>Field  | eted<br>nd Right (R) as looking downstream<br>L R<br>Conservation Tillag<br>D D Urban or Industrial  |
| All       Stream Flowing       Moist Channel, isolated pools, no flow (Intermittent)         Subsurface flow with isolated pools (Interstitial)       Dry channel, no water (Ephemeral)         COMMENTS       SINUOSITY (Number of bends per 61 m (200 ft) of channel)       (Check ONLY one box):         None       1.0       2.0       3.0   | > 3.0 m         -4.0 m         (> 9' 7" - 13')           > 1.5 m         -3.0 m         (> 9' 7" - 4')           COMMENTS  | 8") [20 pts]<br>AND FLOODPLAIN QUA<br>H FLOOD<br>L R<br>L R<br>D D<br>N  | AVERAGE<br>a informatión <u>must</u> also be completed<br>ALITY ANOTE: River Left (L) ar<br>AVERAGE<br>ALITY ANOTE: River Left (L) ar<br>ANOTE: River Left (L) ar | eted<br>nd Right (R) as looking downstream<br>L R<br>Conservation Tillag<br>D D Urban or Industrial<br>Open Pasture, Row<br>Crop   |
| All       Stream Flowing       Moist Channel, isolated pools, no flow (Intermittent)         Subsurface flow with isolated pools (Interstitial)       Dry channel, no water (Ephemeral)         COMMENTS       SINUOSITY (Number of bends per 61 m (200 ft) of channel)       (Check ONLY one box):         None       1.0       2.0       3.0   | > 3.0 m - 4.0 m (> 9' 7" - 13')         > 1.5 m - 3.0 m (> 9' 7" - 4')         COMMENTS  | 8") [20 pts]<br>AND FLOODPLAIN QUA<br>H FLOOD<br>L R<br>L R<br>D D<br>N  | AVERAGE<br>a informatión <u>must</u> also be completed<br>ALITY ANOTE: River Left (L) ar<br>AVERAGE<br>ALITY ANOTE: River Left (L) ar<br>ANOTE: River Left (L) ar | eted<br>nd Right (R) as looking downstream<br>L R<br>Conservation Tillag<br>D D Urban or Industrial<br>Open Pasture, Row<br>Crop   |
| Subsurface flow with isolated pools (Interstitial)       Dry channel, no water (Ephemeral)         COMMENTS  | > 3.0 m       -4.0 m       >9'7"-13'         > 1.5 m       -3.0 m       >9'7"-4'1         COMMENTS   | 8") [20 pts]<br>AND FLOODPLAIN QUA<br>H FLOOD<br>L R<br>D D<br>N<br>L R<br>D D<br>D D<br>D D<br>D D<br>D D<br>D D<br>D D<br>D  | AVERAGE<br>a informatión <u>must</u> also be completed<br>ALITY ANOTE: River Left (L) ar<br>DPLAIN QUALITY<br>(Most Predominant per Bank)<br>Mature Forest, Wetland<br>Immature Forest, Shrub or Old<br>Field<br>Residential, Park, New Field<br>Fenced Pasture   | eted<br>nd Right (R) as looking downstream<br>L R<br>Conservation Tillag<br>D D Urban or Industrial<br>Open Pasture, Row<br>Crop   |
| SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):   | > 3.0 m - 4.0 m (> 9' 7' - 13')         > 1.5 m - 3.0 m (> 9' 7' - 4')         COMMENTS  | 8") [20 pts]<br>AND FLOODPLAIN QUA<br>H FLOOD<br>L R<br>D D<br>N<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1  | AVERAGE<br>a informatión <u>must</u> also be comple<br>ALITY ANOTE: River Left (L) ar<br>DPLAIN QUALITY<br>(Most Predominant per Bank)<br>Mature Forest, Wetland<br>Immature Forest, Shrub or Old<br>Field<br>Residential, Park, New Field<br>Fenced Pasture<br>Check ONLY one box):<br>Moist Che   | eted<br>nd Right (R) as looking downstream   |
|  | > 3.0 m - 4.0 m (> 9' 7" - 13')         > 1.5 m - 3.0 m (> 9' 7" - 4')         COMMENTS         RIPARIAN ZONE /         RIPARIAN VIDTI         L R (Per Bank)         D Wide > 10m         D Moderate 5-10m         Narrow <5m | 8") [20 pts]<br>AND FLOODPLAIN QUA<br>H FLOOD<br>L R<br>D D<br>N<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1  | AVERAGE   | ated<br>nd Right (R) as looking downstream   |
|  | > 3.0 m       -4.0 m       (> 9' 7' - 13')         > 1.5 m       -3.0 m       (> 9' 7' - 4')         COMMENTS  | 8") [20 pts]<br>This<br>AND FLOODPLAIN QUA<br>H FLOOD<br>L R<br>D D<br>N<br>Time of Evaluation) (C<br>h isolated pools (Interstiti   | AVERAGE   | ated<br>nd Right (R) as looking downstream<br>Conservation Tillag<br>DSU Urban or Industrial<br>Open Pasture, Row<br>Crop<br>Mining or Construct<br>annel, isolated pools, no flow (Intermit<br>nel, no water (Ephemeral)  |
|  | > 3.0 m - 4.0 m (> 9' 7' - 13')         > 1.5 m - 3.0 m (> 9' 7' - 4')         COMMENTS  | 8") [20 pts]<br>This<br>AND FLOODPLAIN QUA<br>H FLOOD<br>L R<br>L R<br>C R<br>C R<br>C R<br>C R<br>C R<br>C R<br>C R<br>C  | AVERAGE a informatión must also be completed a informatión must also be completed a informatión must also be completed a NOTE: River Left (L) ar a informatión must also be completed be completed a NOTE: River Left (L) ar a informatión must also be completed be comp  | ated<br>nd Right (R) as looking downstream   |

| ADDITIONAL STREAM INFORMATION (This Information Must Also be C   | ATTACHMENT C  |
|--|---|
| QHEI PERFORMED? - 2 Yes 20No QHEI Score  | _ (If Yes, Attach Completed QHEI Form)                                    |
| DOWNSTREAM DESIGNATED USE(S)   |   |
|  | Distance from Evaluated Stream D (97m.                                    |
| 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                            |
| USGS Quadrangle Name: New AWany NRC  | CS Soil Map Page: NRCS Soil Map Stream Order                              |
| County: FVOINHIA Township  | city: Grahanna  |
| MISCELLANEOUS  |   |
| Base Flow Conditions? (Y/N): Date of last precipitation: 2/2   | 5/77 Quantity: 0.0"   |
| Photograph Information:  |   |
| Elevated Turbidity? (Y/N): N Canopy (% open): 857D   |   |
| Were samples collected for water chemistry? (Y/N): 10 (Note lab sam  | 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)   |   |
|  | e explain   |
| Additional comments/description of pollution impacts:  |   |
| 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)                 |
| Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Obser<br>Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Ma | ved? (Y/N)_N  |
| Comments Regarding Biology:  |   |
|  |   |
|  |   |
|  |   |

#### 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

residential FLOW nalle

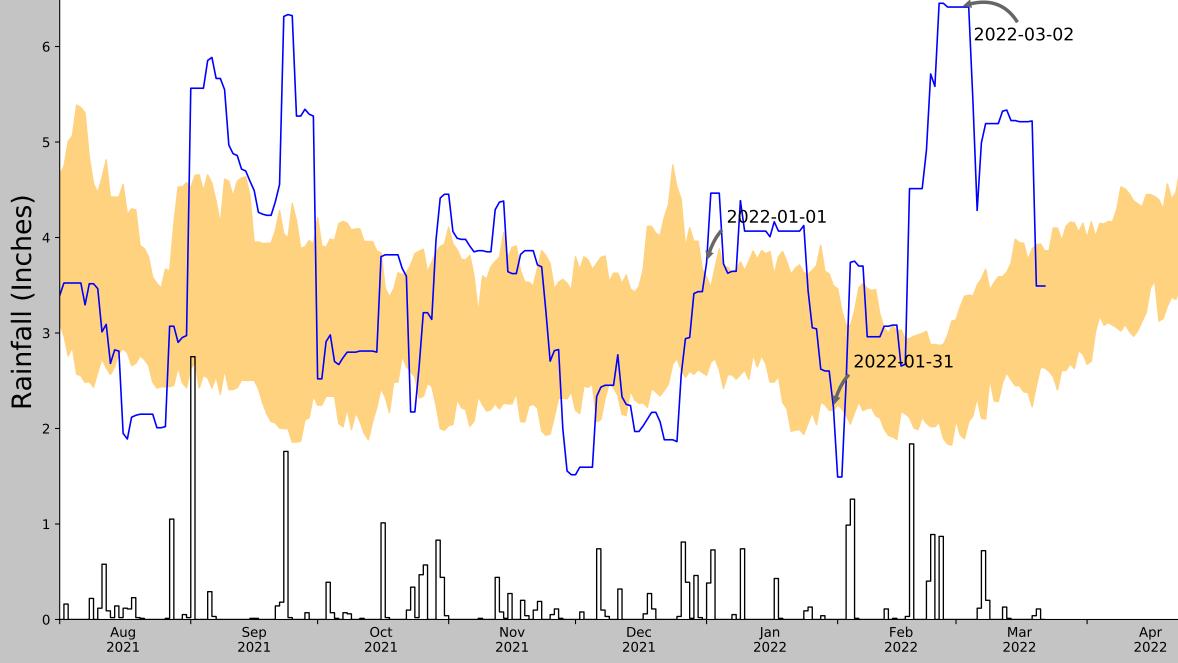
October 24, 2002 Revision

PHWH Form Page - 2

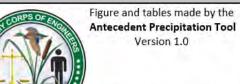


### Appendix C | USACE Antecedent Precipitation Tool





| Coordinates                      | 40.011997, -82.572119    |
|----------------------------------|--------------------------|
| Observation Date                 | 2022-03-02               |
| Elevation (ft)                   | 1094.88                  |
| Drought Index (PDSI)             | Severe wetness (2022-02) |
| WebWIMP H <sub>2</sub> O Balance | Wet Season               |

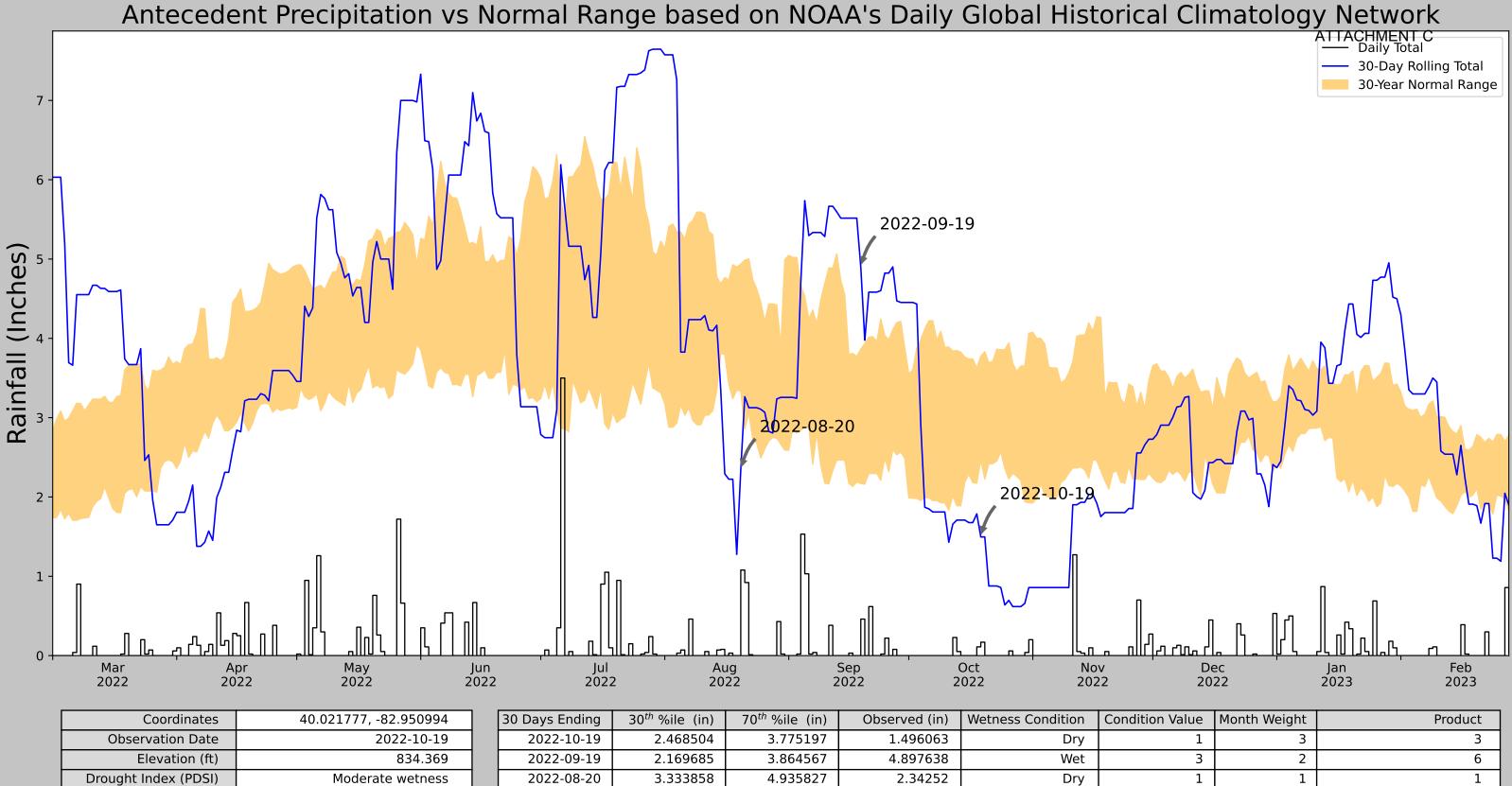


Written by Jason Deters U.S. Army Corps of Engineers

| 30 Days Ending | 30 <sup>th</sup> %ile (in) | 70 <sup>th</sup> %ile (in) | Obse    | erved (in) | Wet  | ness Condition | Condition Va | alue Month        | Weight |         | Product           |
|----------------|----------------------------|----------------------------|---------|------------|------|----------------|--------------|-------------------|--------|---------|-------------------|
| 2022-03-02     | 1.933071                   | 3.275197                   | 6       | 5.413386   |      | Wet            |              | 3                 | 3      |         | 9                 |
| 2022-01-31     | 2.189764                   | 3.494882                   | 2       | 2.220473   |      | Normal         |              | 2                 | 2      |         | 4                 |
| 2022-01-01     | 2.555906                   | 3.585433                   | 3       | 3.736221   |      | Wet            |              | 3                 | 1      |         | 3                 |
| Result         |                            |                            |         |            |      |                |              |                   |        | Wetter  | than Normal - 16  |
| Weath          | er Station Name            | Coord                      | dinates | Elevation  | (ft) | Distance (mi)  | Elevation Δ  | Weighted $\Delta$ | Days ( | Normal) | Days (Antecedent) |
| BL             | JCKEYE LAKE 1 N            | 39.9522, -8                | 2.4819  | 888.       | 123  | 6.315          | 206.757      | 4.148             |        | 11082   | 90                |
| KIR            | KERSVILLE 3.3 N            | 39.998, -8                 | 2.5986  | 1075.      | 131  | 1.703          | 19.749       | 0.8               |        | 8       | 0                 |
| F              | PATASKALA 3.2 E            | 39.998, -8                 | 2.6136  | 1074.      | 147  | 2.399          | 20.733       | 1.129             |        | 7       | 0                 |
| GRA            | NVILLE 2.6 WSW             | 40.0527, -8                | 2.5445  | 1064.      | 961  | 3.169          | 29.919       | 1.521             |        | 10      | 0                 |
| PAT            | ASKALA 2.1 ENE             | 40.013, -8                 | 2.6381  | 1171.      | 916  | 3.492          | 77.036       | 1.841             |        | 1       | 0                 |
| PA             | TASKALA 2.0 NE             | 40.024, -8                 | 2.6511  | 1216.      | 864  | 4.261          | 121.984      | 2.437             |        | 36      | 0                 |
| ALEXA          | ANDRIA 2.1 NNW             | 40.1182, -8                | 2.6265  | 1080.      | 053  | 7.881          | 14.827       | 3.663             |        | 32      | 0                 |
| NE             | WARK HEATH AP              | 40.0228, -8                | 2.4625  | 883.       | 858  | 5.848          | 211.022      | 3.866             |        | 3       | 0                 |
|                | UTICA 4 WSW                | 40.2061,                   | -82.52  | 1134.      | 843  | 13.691         | 39.963       | 6.708             |        | 1       | 0                 |
| NE             | WARK WTR WKS               | 40.0875, -8                | 2.4128  | 834.       | 974  | 9.911          | 259.906      | 7.036             |        | 173     | 0                 |

| y Network   |
|---|
| ATTACHMENT C<br>— Daily Total<br>— 30-Day Rolling Total<br>30-Year Normal Range |
|   |
|   |
|   |
|   |
| Jun Jul<br>2022 2022  |
|   |







WebWIMP H<sub>2</sub>O Balance

Figure and tables made by the **Antecedent Precipitation Tool** Version 1.0

Wet Season

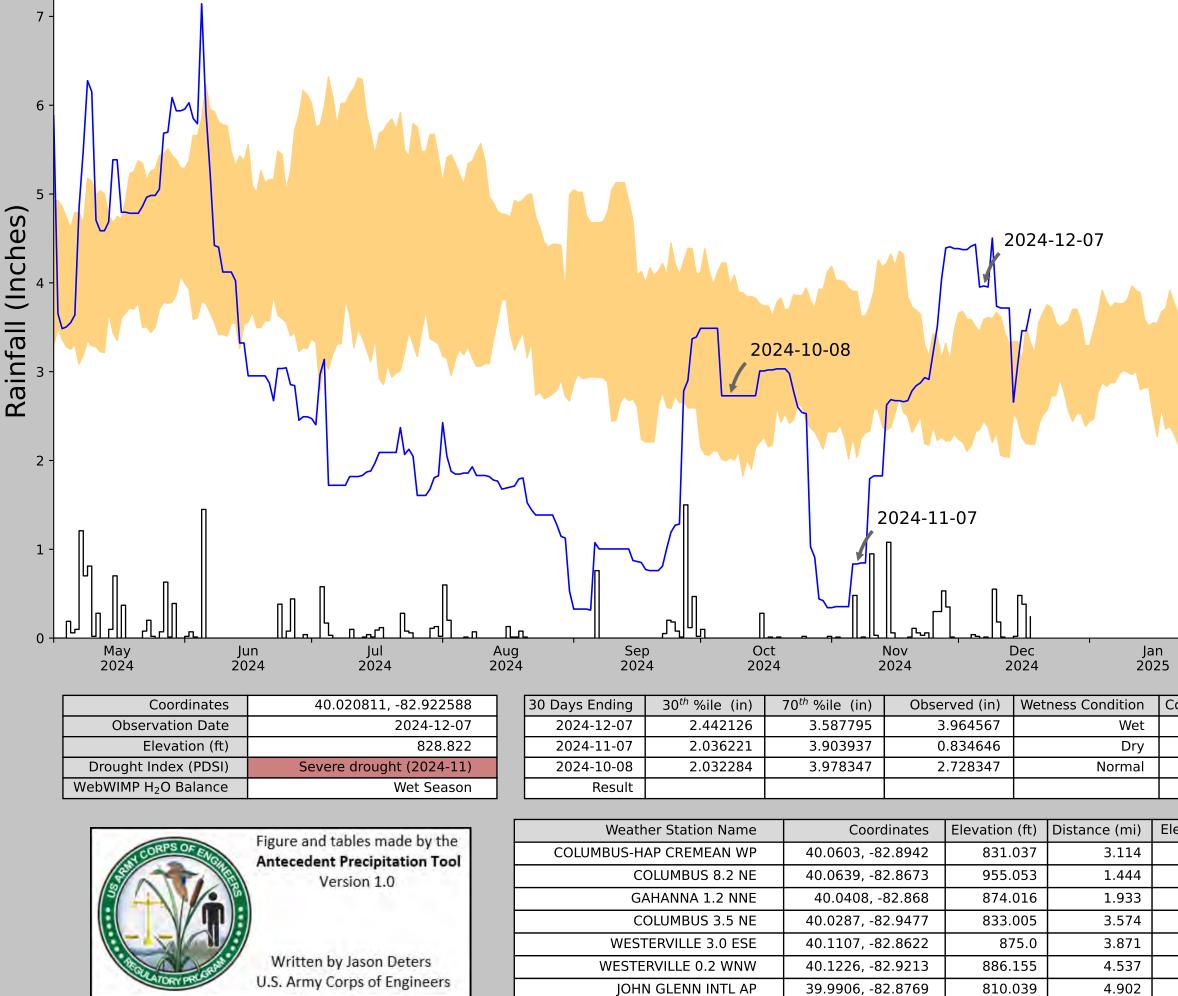
Result

Written by Jason Deters U.S. Army Corps of Engineers

| Weather Station Name    | Coordinates       | Elevation (ft) | Distance (mi) | Elevation $\Delta$ | Weighted $\Delta$ | Days Normal | Days Antecedent |
|-------------------------|-------------------|----------------|---------------|--------------------|-------------------|-------------|-----------------|
| COLUMBUS-HAP CREMEAN WP | 40.0603, -82.8942 | 831.037        | 4.014         | 3.332              | 1.82              | 10742       | 90              |
| COLUMBUS 8.2 NE         | 40.0639, -82.8673 | 955.053        | 1.444         | 124.016            | 0.829             | 7           | 0               |
| COLUMBUS 3.5 NE         | 40.0287, -82.9477 | 833.005        | 3.574         | 1.968              | 1.615             | 2           | 0               |
| WESTERVILLE 0.2 WNW     | 40.1226, -82.9213 | 886.155        | 4.537         | 55.118             | 2.292             | 43          | 0               |
| JOHN GLENN INTL AP      | 39.9906, -82.8769 | 810.039        | 4.902         | 20.998             | 2.309             | 559         | 0               |

Normal Conditions - 10

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



U.S. Army Corps of Engineers

# ATTACHMENT C — 30-Day Rolling Total 30-Year Normal Range

| Feb<br>2025     |              | Mar Apr<br>2025 2025   |
|-----------------|--------------|------------------------|
| Condition Value | Month Weight | Product                |
| 3               | 3            | 9                      |
| 1               | 2            | 2                      |
| 2               | 1            | 2                      |
|                 |              | Normal Conditions - 13 |

|                  | -                 |             |                 |
|------------------|-------------------|-------------|-----------------|
| evation $\Delta$ | Weighted $\Delta$ | Days Normal | Days Antecedent |
| 2.215            | 1.408             | 10771       | 78              |
| 124.016          | 0.829             | 8           | 11              |
| 42.979           | 0.953             | 0           | 1               |
| 1.968            | 1.615             | 2           | 0               |
| 43.963           | 1.912             | 1           | 0               |
| 55.118           | 2.292             | 43          | 0               |
| 20.998           | 2.309             | 528         | 0               |

4.902



# Appendix D | Photographs

Wetland Delineation Report | December 20, 2024



Photo #1 -Looking east at Wetland 8; near wetland flag W8.4



Photo #2: Looking at west at upland woodlands near wetland flag W8.4.



Photo #3: Looking north at Wetland 9; near wetland flag W9.5



Photo #4: Looking at west at upland maintained lawn/early successional vegetation near wetland flag W9.5.



Photo #5: Looking north at typical conditions at Stelzer inlet.



Photo #6: Looking north at typical conditions at Stygler inlet.



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