

Engineering & Design

Wetland Delineation Report

NCHP Phase 3B Project

Colliers Engineering & Design Project Number: 21004202A

December 20, 2024

Prepared for:

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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 2nd and 3rd, 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- 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 jurisdictional WOTUS and wetlands since these features drain towards 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 Table
AdC2	Alexandria silt loam, 6 to 12 percent slopes, eroded	Well Drained	High	More than 80 inches
BeB	Bennington silt loam, 2 to 6 percent slopes	Somewhat Poorly Drained	High	About 6 to 12 inches
BfA	Bennington-Urban land complex, 0 to 2 percent slopes	Somewhat Poorly Drained	High	About 6 to 12 inches
CbC	Cardington-Urban land complex, 6 to 12 percent slopes	Moderately Well Drained	High	About 24 to 36 inches
Crd1B1	Cardington silt loam, 2 to 6 percent slopes	Moderately Well Drained	Medium	About 12 to 24 inches
Ee	Eel silt loam, 0 to 2 percent slopes, occasionally flooded	Moderately Well Drained	Low	About 15 to 24 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 Table
EIB	Eldean silt loam, 2 to 6 percent slopes	Well Drained	Low	More than 80 inches
EID2	Eldean silt loam, 12 to 18 percent slopes, eroded	Well Drained	High	More than 80 inches
So	Sloan silt loam, Columbus Lowland, 0-2 percent slopes, frequently flooded	Very Poorly Drained	Negligible	About 0 to 6 inches
Mh	Medway silt loam, occasionally flooded	Moderately Well Drained	Low	About 18 to 36 inches
Pm	Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes	Very Poorly Drained	Negligible	About 0 to 12 inches
Sh	Shoals silt loam, occasionally flooded	Somewhat Poorly Drained	Very low	About 12 to 36 inches
Pn	Pewamo low carbonate till- Urban land complex, 0 to 2 percent slopes	Very Poorly Drained	Negligible	About 0 to 12 inches
EIC2	Eldean silt loam, 6 to 12 percent slopes, eroded	Well Drained	High	More than 80 Inches
AdE2	Alexandria silt loam, 18 to 25 percent slopes, eroded	Well Drained	Very High	More than 80 inches
KeB	Kendallville silt loam, 2 to 6 percent slopes	Well Drained	Low	More than 80 inches
Cn	Condit silt loam, 0 to 1 percent slopes	Poorly Drained	Negligible	About 0 to 12 inches
BeA	Bennington silt loam, 0 to 2 percent slopes	Somewhat Poorly Drained	High	About 6 to 12 inches
Ut	Udorthents-Urban land complex, gently rolling	-	-	More than 80 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 2nd & 3rd, 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 Resource	PFO Area (AC)	PEM Area (AC)	Aquatic Resource	PUB Area (AC)	Aquatic Resource	R3 Length (LF)	R4 Length (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 Wetlands by Class (AC)	0.67	0.23	Total Pond	0.18	Total Stream by Class (LF)	806	1,120
Total Wetlands (AC)	0.	9	(AC)		Total Stream (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 2nd & 3rd, 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 2nd and 3rd, 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

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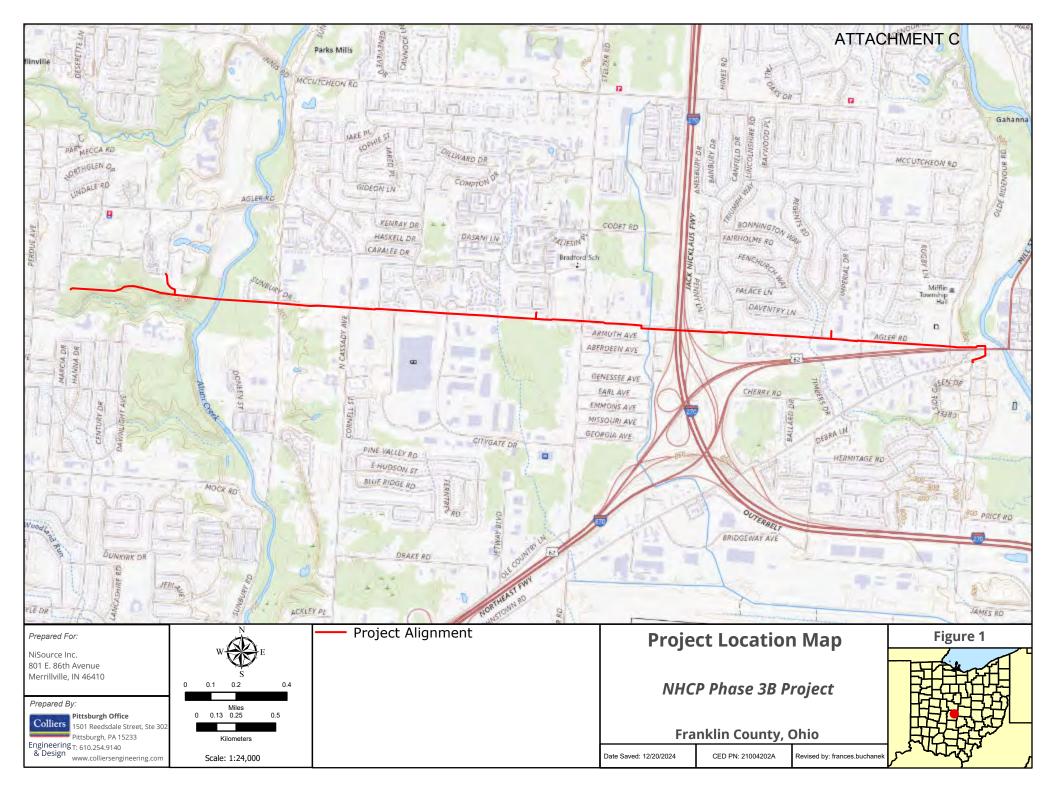
United States Department of Agriculture. Natural Resources Conservation Service http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

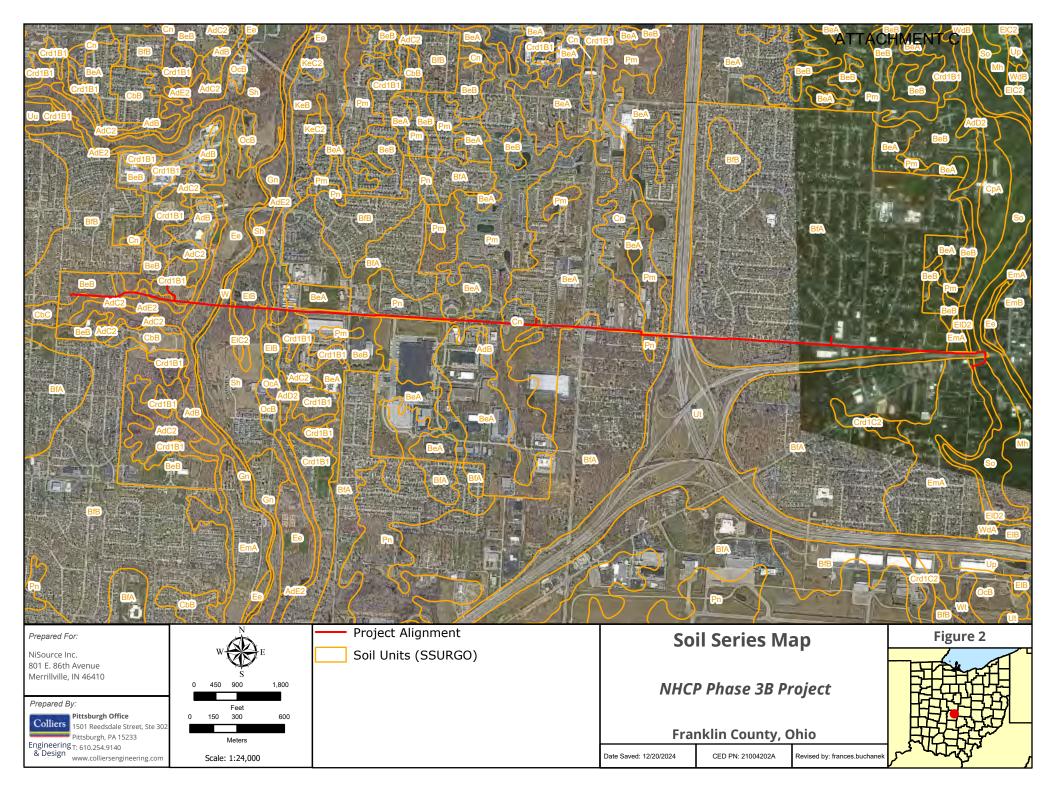
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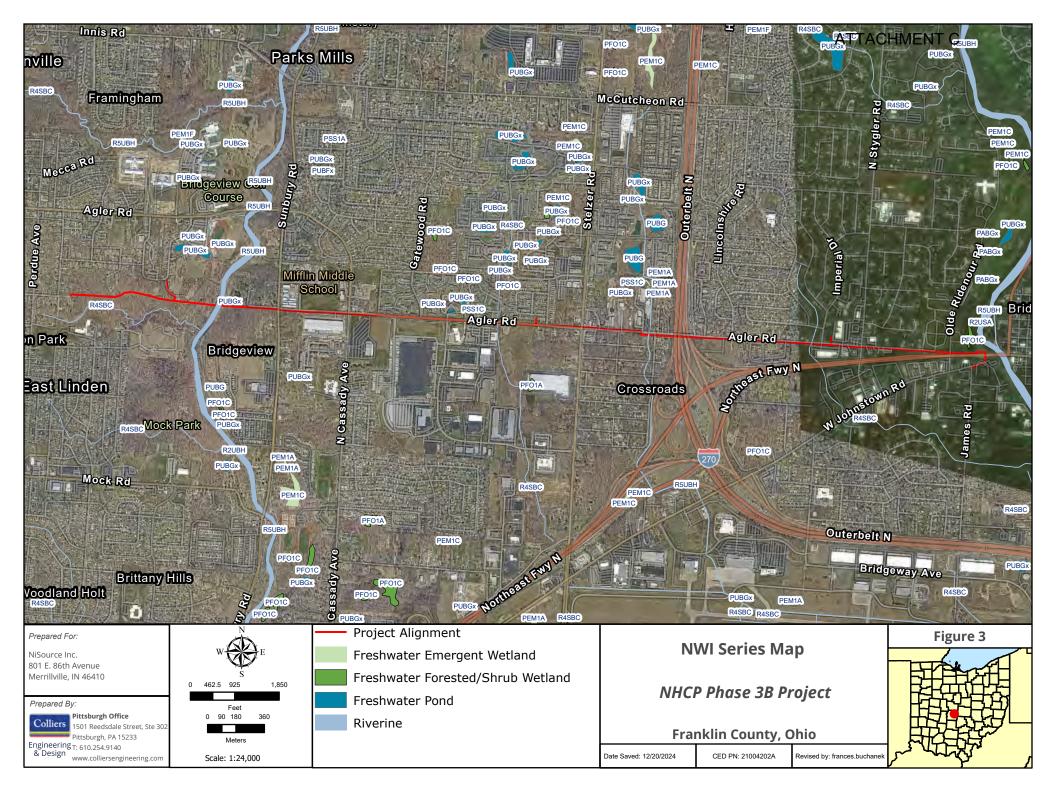


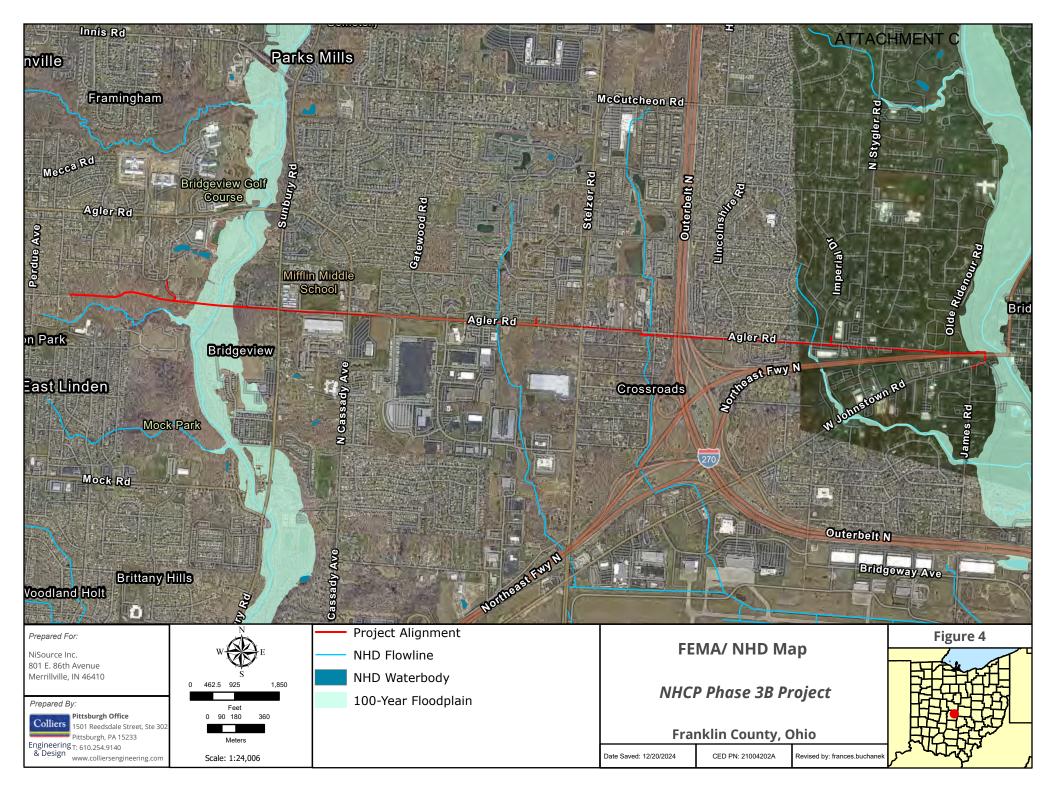
Appendix Appendix A | Figures

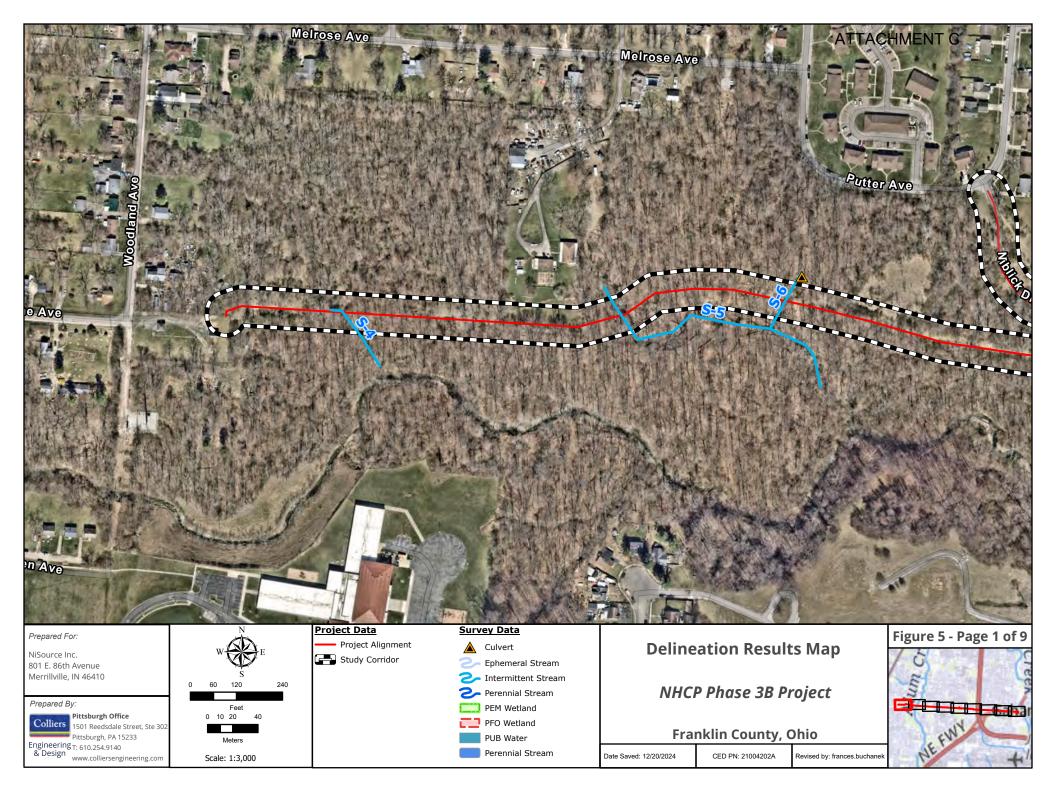
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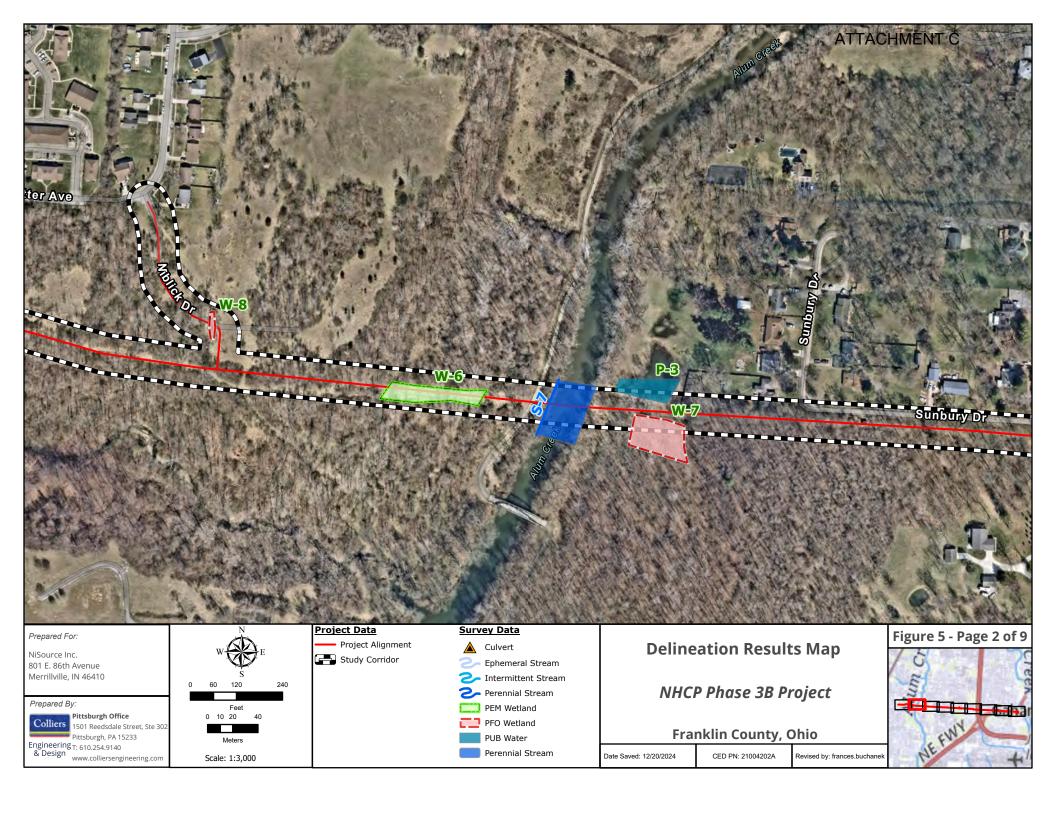




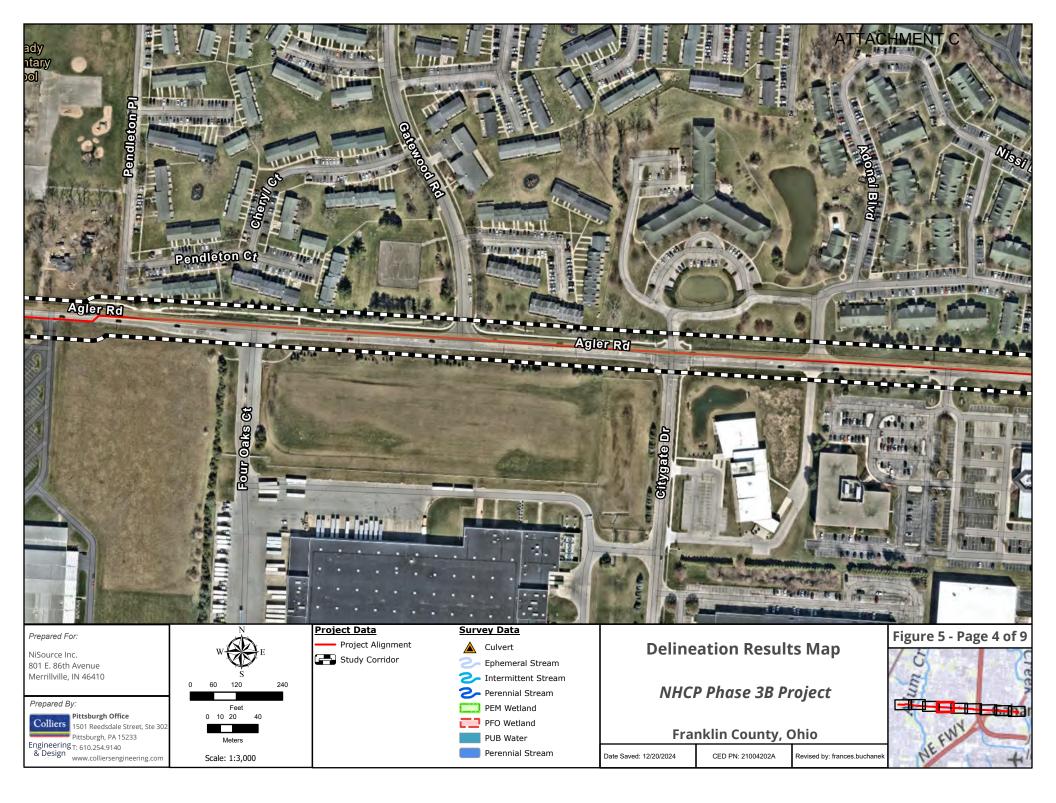




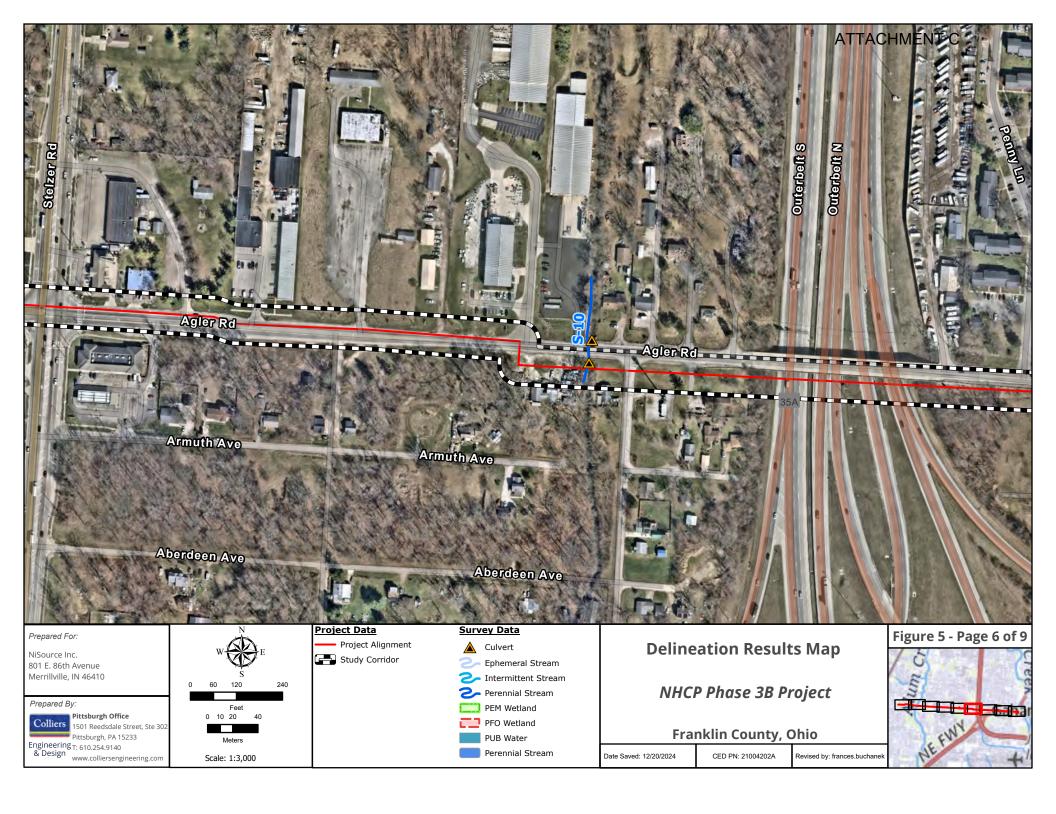


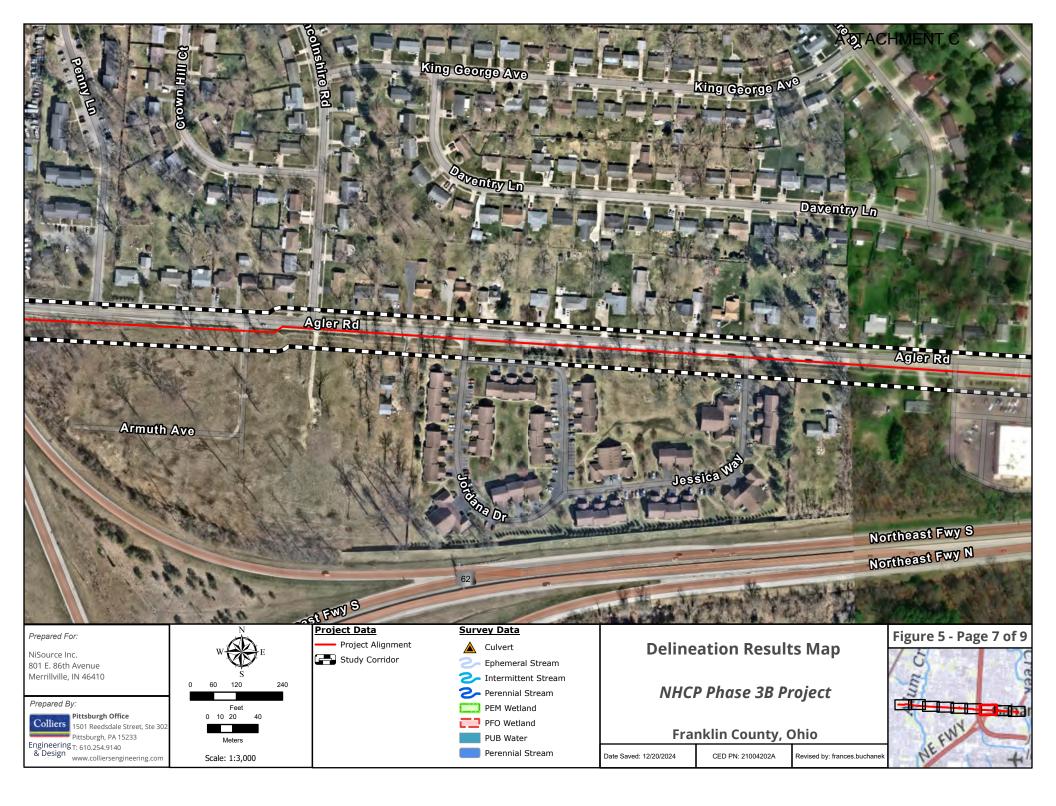


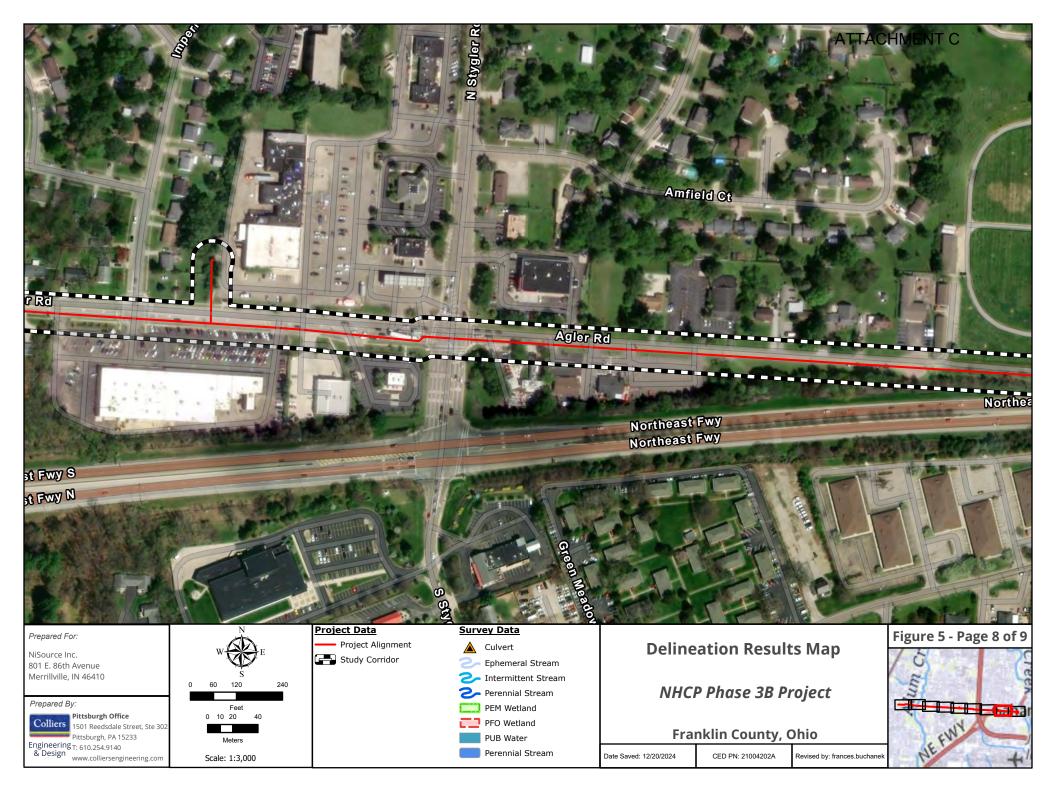


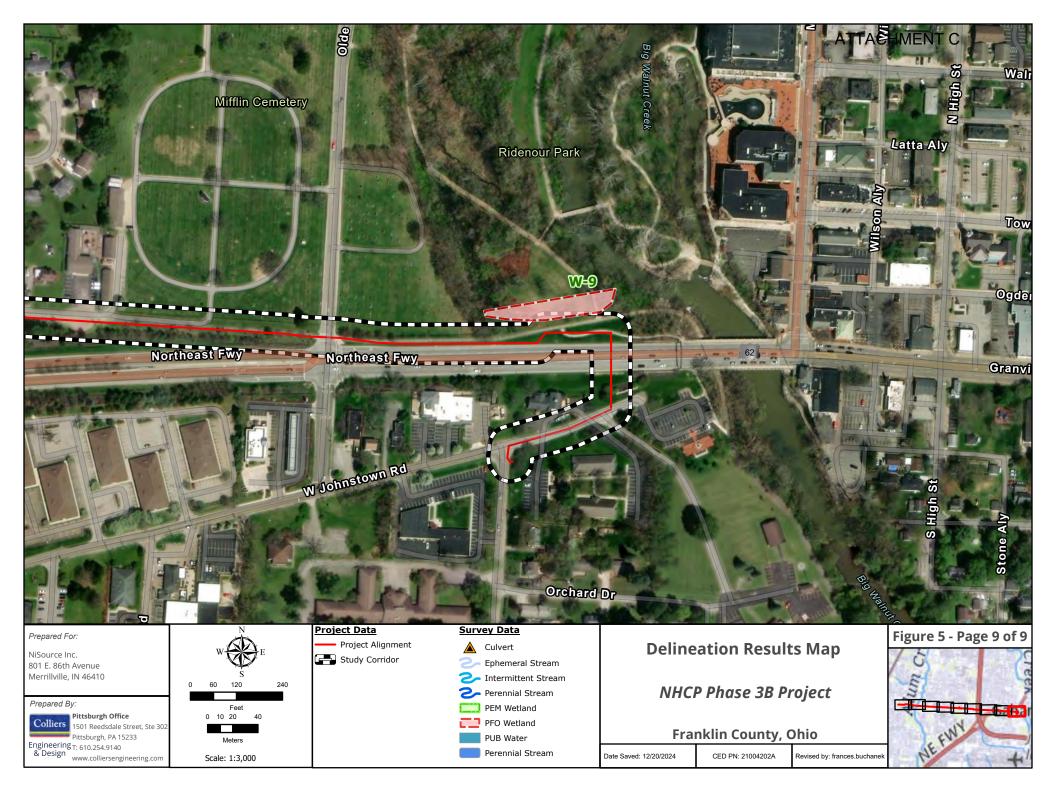














Appendix B | Data Forms

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: $ACCZ$ 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 ? 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 % 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	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
pody Vine Stratum (Plot size: 2420)	
Vitis (Plot size: 0150) Sitis (pavice 5 4	ACW Hydrophytic
oody Vine Stratum (Plot size: 2150)	Vegetation Present? Yes X No

US Army Corps of Engineers

epth nches)	Matrix			x Feature		or confirm	n the absence of indicators.)
	Color (moist)	%	Color (moist)	x Feature %	S Type ¹	Loc ²	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.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Histosol (Sandy	Sleyed Ma	atrix (SA)		Coast Prairie Redox (A16)
	ipedon (A2)			Redox (SS			Coast Frame Redox (A10) 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 d Matrix (atrix (F2) F3)		Other (Explain in Remarks)
	Below Dark Surface 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 Depressio		0	³ Indicators of hydrophytic vegetation and 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 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 X Water-Sta		ves (B9)		Secondary Indicators (minimum of two required
etland Hyd rimary Indic Surface V	rology Indicators: ators (minimum of o	ne is requ	X Water-Sta	ined Leav auna (B13	3)		
etland Hyd rimary Indic Surface V High Wat Saturation	Irology Indicators: ators (minimum of o Water (A1) er Table (A2) n (A3)	ne is requ	X Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants	3) 5 (B14)		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
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Vetland Hyd rimary Indica Surface V High Wat Saturation Water Ma	Irology Indicators: ators (minimum of o Water (A1) er Table (A2) n (A3)	ne is requ	X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide C Rhizosphe	3) 5 (B14) 9dor (C1) eres on L	iving Roots	 Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
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plicant/Owner: <u>NiSource</u> vestigator(s):				State: <u>OH</u> Sampling Point: <u>WOOUP</u> 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 Λ , Soil N_{+} , or Hydrology \sim si	time of yea	r? Yes	No_	(If no, explain in Remarks.) 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- 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 = 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 ¹ (Explain)
10			_	¹ 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 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 (inches)	Color (moist)	%	Color (moist)	x Feature %	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 Indicators:	letion, RM	=Reduced Matrix, M	S=Maske	ed Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Histosol								or Problematic Hydric Soils ³ :
	pipedon (A2)				latrix (S4)			rairie Redox (A16)
	istic (A3)			Redox (S d Matrix (rface (S7)
	en Sulfide (A4)				lineral (F1)			iganese Masses (F12) 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 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: YDROLC	DGY							
Remarks: YDROLC Wetland Hy	DGY /drology Indicators		uired: check all that a	(עוממו				
Remarks: IYDROLO Wetland Hy Primary Ind	DGY vdrology Indicators icators (minimum of		5.		aves (89)		<u>Secondar</u>	y Indicators (minimum of two required
Remarks: YDROLC Wetland Hy Primary Ind X Surface	DGY /drology Indicators icators (minimum of 2 Water (A1)		X Water-St	ained Lea			<u>Secondar</u>	y Indicators (minimum of two required ce Soil Cracks (86)
Primary Ind Surface High W	DGY /drology Indicators icators (minimum of e Water (A1) ater Table (A2)		X Water-St		3)		<u>Secondar</u> Surfa 义Drain	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10)
Remarks: IYDROLC Wetland Hy Primary Ind X Surface High W X Saturat	DGY vdrology Indicators icators (minimum of water (A1) ater Table (A2) ion (A3)		X Water-St Aquatic F True Aqu	ained Lea Fauna (B1 Natic Plant	3)		<u>Secondar</u> Surfa ∑Drain Dry-S	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) season Water Table (C2)
Remarks: IYDROLC Wetland Hy Primary Ind X Surface High W X Saturat X Water M	DGY /drology Indicators icators (minimum of e Water (A1) ater Table (A2)		X Water-St Aquatic F True Aqu Hydrogen	ained Lea Fauna (B1 Patic Plant In Sulfide (3) ts (B14)		<u>Secondar</u> Surfa &Drain Dry-S Crayf	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10)
Remarks: YDROLO Wetland Hy Primary Ind X Surface High W X Saturat Water M Sedime	DGY vdrology Indicators icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1)		X Water-St Aquatic F True Aqu Hydrogen Oxidized	ained Lea auna (B1 atic Plant n Sulfide (Rhizosph	3) ts (B14) Odor (C1)	ving Roots	Secondar Surfa Drain Dry-S Crayf (C3)Satur	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8)
Primarks: YDROLO Wetland Hy Primary Ind Surface High W Saturat Water M Sedime Drift De	DGY vdrology Indicators icators (minimum of e Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2)		X Water-St Aquatic F True Aqu Hydrogen Oxidized Presence	ained Lea auna (B1 atic Plant n Sulfide (Rhizosph e of Reduc	3) ts (B14) Odor (C1) heres on Li	ving Roots (4)	Secondar Surfa &Drain Dry-S Crayl (C3)Satur Sturt	y Indicators (minimum of two required ce Soil Cracks (86) age Patterns (B10) season Water Table (C2) fish Burrows (C8) ation Visible on Aerial Imagery (C9)
Primary Ind VDROLO Wetland Hy Primary Ind Surface High W Saturat Water M Sedime Drift De Algal M	OGY vdrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3)		X Water-St Aquatic F True Aqu Hydrogen Oxidized Presence Recent In	ained Lea auna (B1 atic Plant n Sulfide (Rhizosph e of Reduc	3) ts (B14) Odor (C1) neres on Lin ced Iron (C ction in Tille	ving Roots (4)	Surfa Surfa ↓Drain Dry-S Crayt (C3)Satur Sturt 6) ↓ Geor	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) season Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
Remarks: YDROLO Wetland Hy Primary Ind Surface High W Saturat Water M Sedime Drift De Algal M Iron De	DGY vdrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4)	one is requ	X Water-St Aquatic F True Aqu Hydrogen Oxidized Presence Recent In Thin Muc	ained Lea Fauna (B1 Patic Plant In Sulfide (Rhizosph of Reduction Fon Reduction	3) Is (B14) Odor (C1) neres on Li ced Iron (C ction In Tille e (C7)	ving Roots (4)	Surfa Surfa ↓Drain Dry-S Crayt (C3)Satur Sturt 6) ↓ Geor	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9) red or Stressed Plants (D1) norphic Position (D2)
Primarks: YDROLO Wetland Hy Primary Ind Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat	DGY drology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is requ	X Water-St Aquatic F True Aqu Hydrogen Oxidized Presence Recent In Thin Muc B7) Gauge o	ained Lea auna (B1 atic Plant n Sulfide (Rhizosph of Reduc on Reduc ch Surface r Well Dat	3) Is (B14) Odor (C1) neres on Li ced Iron (C ction In Tille e (C7)	ving Roots (4)	Surfa Surfa ↓Drain Dry-S Crayt (C3)Satur Sturt 6) ↓ Geor	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9) red or Stressed Plants (D1) norphic Position (D2)
Primarks: YDROLC Wetland Hy Primary Ind Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel	OGY vdrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav	one is requ	X Water-St Aquatic F True Aqu Hydrogen Oxidized Presence Recent In Thin Muc B7) Gauge o	ained Lea auna (B1 atic Plant n Sulfide (Rhizosph of Reduc on Reduc ch Surface r Well Dat	3) ds (B14) Odor (C1) heres on Lir ced Iron (C ction in Tille e (C7) ta (D9)	ving Roots (4)	Surfa Surfa ↓Drain Dry-S Crayt (C3)Satur Sturt 6) ↓ Geor	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9) red or Stressed Plants (D1) norphic Position (D2)
Remarks: YDROLC Wetland Hy Primary Ind X Surface High W X Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser	DGY vdrology Indicators icators (minimum of ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav vations:	one is requ	X Water-St Aquatic F True Aqu Hydrogen Oxidized Presence Recent In Thin Muc B7) Gauge o	ained Lea Fauna (B1 Fautic Plant In Sulfide (Rhizosph e of Reductor on Reductor on Reductor k Surface r Well Data kplain in F	3) ds (B14) Odor (C1) heres on Lir ced Iron (C ction in Tille e (C7) ta (D9)	ving Roots (4)	Surfa Surfa ↓Drain Dry-S Crayt (C3)Satur Sturt 6) ↓ Geor	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9) red or Stressed Plants (D1) norphic Position (D2)
Remarks: IYDROLO Wetland Hy Primary Ind Y Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water	DGY vdrology Indicators icators (minimum of ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav vations:	Imagery (e Surface	X Water-St Aquatic F True Aqu Hydrogen Oxidized Presence Recent In Thin Muc B7) Gauge o (B8) Other (E)	ained Lea Fauna (B1 Fauna (B1 n Sulfide (Rhizosph of Reduc on Reduc on Reduc k Surface r Well Dat kplain in F	3) ds (B14) Odor (C1) heres on Lir ced Iron (C ction in Tille e (C7) ta (D9)	ving Roots (4)	Surfa Surfa ↓Drain Dry-S Crayt (C3)Satur Sturt 6) ↓ Geor	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9) red or Stressed Plants (D1) norphic Position (D2)
Remarks: YDROLO Wetland Hy Primary Ind Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wal Water Table	DGY drology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav vations: Present?	Imagery (e Surface	X Water-St Aquatic F True Aqu Hydrogen Oxidized Presence Recent In Thin Muc B7) Gauge o (B8) Other (E) No Depth (i	ained Lea Fauna (B1 Fatic Plant n Sulfide (Rhizosph e of Reduc on Reduc on Reduc k Surface r Well Dal kxplain in F nches): nches): _	3) ds (B14) Odor (C1) heres on Lir ced Iron (C ction in Tille e (C7) ta (D9)	ving Roots :4) ed Soils (C	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt 6) X Geor X FAC-	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9) red or Stressed Plants (D1) norphic Position (D2)
Primarks: YDROLC Wetland Hy Primary Ind Y Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Surface Water Table Saturation P includes ca	DGY vdrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav vations: Present? Present? pollary fringe)	Imagery (re Surface 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 Fauna (B1 hatic Plant h Sulfide (Rhizosph e of Reduc ton Reduc ton Reduc ton Reduc to Reduc ton Reduc to Redu	3) ts (B14) Odor (C1) neres on Li ced Iron (C ction in Tille e (C7) ta (D9) Remarks)	ving Roots (4) ed Soils (C	Secondar Surfa Surfa Drain Dry-S Crayf (C3) Satur Stunt 6) X Geor FAC- Iand Hydrology	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Primarks: YDROLC Wetland Hy Primary Ind Y Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Surface	DGY vdrology Indicators icators (minimum of ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav vations: ter Present? Present?	Imagery (re Surface 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 Fauna (B1 tratic Plant n Sulfide (Rhizosph e of Reduc on Reduc on Reduc k Surface r Well Dal kplain in F nches): nches): nches): l photos,	3) ts (B14) Odor (C1) neres on Li ced Iron (C ction in Tille e (C7) ta (D9) Remarks)	ving Roots (4) ed Soils (C	Secondar Surfa Surfa Drain Dry-S Crayf (C3) Satur Stunt 6) X Geor FAC- Iand Hydrology	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Remarks: YDROLC Wetland Hy Primary Ind Y Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Surface W	DGY vdrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav vations: Present? Present? pollary fringe)	Imagery (re Surface 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 Fauna (B1 hatic Plant h Sulfide (Rhizosph e of Reduc ton Reduc ton Reduc ton Reduc to Reduc ton Reduc to Redu	3) ts (B14) Odor (C1) neres on Li ced Iron (C ction in Tille e (C7) ta (D9) Remarks)	ving Roots (4) ed Soils (C	Secondar Surfa Surfa Drain Dry-S Crayf (C3) Satur Stunt 6) X Geor FAC- Iand Hydrology	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Remarks: IYDROLC Wetland Hy Primary Ind X Surface High W X Saturat C Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Surface Water Table Saturation Pri (includes ca	DGY vdrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav vations: Present? Present? pollary fringe)	Imagery (re Surface 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 Fauna (B1 tratic Plant n Sulfide (Rhizosph e of Reduc on Reduc on Reduc k Surface r Well Dal kplain in F nches): nches): nches): l photos,	3) ts (B14) Odor (C1) neres on Li ced Iron (C ction in Tille e (C7) ta (D9) Remarks)	ving Roots (4) ed Soils (C	Secondar Surfa Surfa Drain Dry-S Crayf (C3) Satur Stunt 6) X Geor FAC- Iand Hydrology	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Remarks: WDROLC Wetland Hy Primary Ind Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa Water Table Saturation P Cincludes ca Describe Re	DGY vdrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav vations: Present? Present? pollary fringe)	Imagery (re Surface 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 Fauna (B1 tratic Plant n Sulfide (Rhizosph e of Reduc on Reduc on Reduc k Surface r Well Dal kplain in F nches): nches): nches): l photos,	3) ts (B14) Odor (C1) neres on Li ced Iron (C ction in Tille e (C7) ta (D9) Remarks)	ving Roots (4) ed Soils (C	Secondar Surfa Surfa Drain Dry-S Crayf (C3) Satur Stunt 6) X Geor FAC- Iand Hydrology	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) Neutral Test (D5)
Remarks: YDROLO Wetland Hy Primary Ind Y Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa' Water Table Saturation P Cincludes ca Describe Re	DGY vdrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav vations: Present? Present? pollary fringe)	Imagery (re Surface 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 Fauna (B1 tratic Plant n Sulfide (Rhizosph e of Reduc on Reduc on Reduc k Surface r Well Dal kplain in F nches): nches): nches): l photos,	3) ts (B14) Odor (C1) neres on Li ced Iron (C ction in Tille e (C7) ta (D9) Remarks)	ving Roots (4) ed Soils (C	Secondar Surfa Surfa Drain Dry-S Crayf (C3) Satur Stunt 6) X Geor FAC-	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) iseason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2) 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 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 = 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
2
2 al Die Later Melletie
2 al Die Deer History Mallatin
2 Di Dave Liete e Melletriu
² Location: PL=Pore Lining, M=Matrix.
Indicators for Problematic Hydric Soils ³ :
Coast Prairie Redox (A16)
Dark Surface (S7)
Iron-Manganese Masses (F12)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation and
wetland hydrology must be present, 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 Species? Status	Dominance Test wo		
Populus deltoides	70	Y FAC	Number of Dominant	Species /, or FAC: 2	(A)
· ·					(//)
			Total Number of Dom Species Across All St		(B)
-					(=)
5			Percent of Dominant 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 ¹ (Provide su	Innortina
				rks or on a separate sh	
·			Problematic Hyd	rophytic Vegetation ¹ (E	Explain)
 0				oil and wetland hydrol	
		= Total Cover	be present, unless dis	sturbed or problematic	•
Voody Vine Stratum (Plot size: 15')					
1			Hydrophytic Vegetation		
·					
l 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 ¹	Loc ²	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	- S=Covered	d or Coate	d Sand G	rains ² Loc	ation: PI = Pore Lining M=Matrix			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :											
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) Mucky Mineral (S1)				Irface (F7)		³ Indicators of hydrophytic vegetation and				
	ucky Peat or Peat (S3)		Depressio	115 (FO)		wetland hydrology must be present, 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) 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 ۱	within a Wetla	nd? Yes <u>X</u> No
Wetland Hydrology Present? Yes X N 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% X Prevalence Index is ≤3.0 ¹
5				Morphological Adaptations ¹ (Provide supporting
6				data in Remarks or on a separate sheet)
7				Problematic Hydrophytic Vegetation ¹ (Explain)
3				
				1 Indiantana of budyin and unational budying a second
9				¹ Indicators of hydric soil and wetland hydrology must
9 10		= Total		be present, unless disturbed or problematic.
9 10				be present, unless disturbed or problematic.
9	100	= Total	Cover	be present, unless disturbed or problematic.
8 9 10 10 Woody Vine Stratum (Plot size:15') 1 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 ¹	Loc ²	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 ³ :
Histosol				Gleyed Ma				Prairie Redox (A16)
	pipedon (A2) istic (A3)			Redox (S5 d Matrix (S				anganese Masses (F12) (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)		³ 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) 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					
					.
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> _ Acer rubrum			ACU Total Number of		F (D)
			-AC Species Across	All Strata:	5 (B)
 			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 FAC species	0 x 2 = 40 x 3 =	0 120
<u>Ligustrum vulgare</u>	40		ACU FACW species FAC species FACU species	0 x 2 = 40 x 3 = 150 x 4 =	0 120 600
Ligustrum vulgare	40		ACU FACW species FAC species FACU species UPL species	0 x 2 = 40 x 3 = 150 x 4 = 0 x 5 =	0 120 600 0
	40	= Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals:	0 x 2 = 40 x 3 = 150 x 4 = 0 x 5 = 190 (A)	0 120 600 0 720 (B)
		_= Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals: Prevalence	$\begin{array}{c} 0 & x \ 2 = \\ \hline 40 & x \ 3 = \\ \hline 150 & x \ 4 = \\ \hline 0 & x \ 5 = \\ \hline 190 & (A) \\ \hline e \ Index = B/A = \\ \hline \end{array}$	0 120 600 0 720 (B)
	40 	= Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals: 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} $	0 120 600 0 720 (B)
	40 	_ = Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals: Prevalence 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} $	0 120 600 0 720 (B)
. <u>Ligustrum vulgare</u>		= Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals: Prevalence Hydrophytic Ve Dominance	$\begin{array}{c} 0 \\ 40 \\ x 3 = \\ \hline 150 \\ x 4 = \\ \hline 0 \\ x 5 = \\ \hline 190 \\ \end{array}$ e Index = B/A = getation Indicators: Test is >50% Index is <3.0 ¹	0 120 600 0 720 (B) 3.79
		_ = Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals: Prevalence Hydrophytic Ve Dominance Prevalence Morphologic 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} $	0 120 600 0 720 (B) 3.79
		_ = Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals: Prevalence Hydrophytic Ve Dominance Prevalence Morphologic 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 = getation Indicators: Test is >50% Index is <3.0 ¹ al Adaptations ¹ (Provid	0 120 600 0 720 (B) 3.79
Ligustrum vulgare		= Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals: Prevalence Hydrophytic Ve Dominance Prevalence Morphologic data in R	$\begin{array}{c} 0 \\ 40 \\ x 3 = \\ 150 \\ x 4 = \\ 0 \\ x 5 = \\ 190 \\ 100 \\ 190 \\ 100 $	0 120 600 0 720 (B) 3.79
Ligustrum vulgare		_ = Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals: Prevalence Hydrophytic Ve Dominance Prevalence Morphologic data in R 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 FAC species FACU species UPL species Column Totals: Prevalence Hydrophytic Ve Dominance Prevalence Morphologic data in R 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 FAC species FACU species UPL species Column Totals: Prevalence Hydrophytic Ve Dominance Prevalence Morphologic data in R Problematic	$\begin{array}{c} 0 \\ + 0 \\ + 0 \\ + 3 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 190 \\ \hline 190$	0 120 600 0 720 (B) 3.79 le supporting te sheet) n ¹ (Explain) drology must
3. Ligustrum vulgare 4.		_ = Total Cover	ACU FACW species FAC species FACU species UPL species Column Totals: Prevalence Hydrophytic Ve Dominance Prevalence Morphologic data in R 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	$\begin{array}{c} 0 \\ + 0 \\ + 0 \\ + 3 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 150 \\ + 4 \\ \hline \\ 190 \\ \hline 190$	0 120 600 0 720 (B) 3.79 le supporting te sheet) n ¹ (Explain) drology must natic.

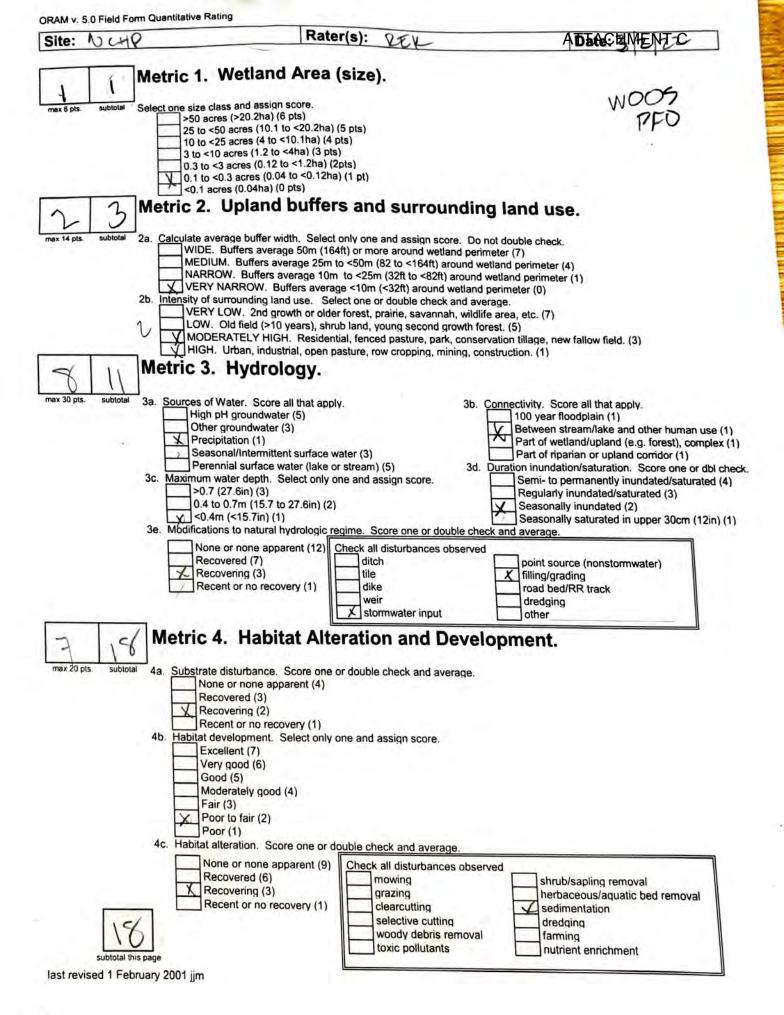
					irm the absence	
Profile Des	cription: (Describe	to the dept	h needed to document the i	ndicator or cont		e of indicators.)
Depth	Matrix		Redox Features			
(inches)	Color (moist)	%	Color (moist) %	Type ¹ Loc ²	Texture	Remarks
0-6	10YR 3/2	100			SiL	
6-15	10YR 5/4	100			SiCL	Gravelly
 Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, CS=Covered	or Coated Sand	Grains. ² Lc	ocation: PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:				Indicators	s for Problematic Hydric Soils ³ :
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)	³ 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)			unes	
	Layer (if observed):)			unes	
	•	5)				
Restrictive Type:	•	•				Il Present? Yes No <u>X</u>
Restrictive Type:	Layer (if observed):	•				
Restrictive Type: Depth (in	Layer (if observed):	•				
Restrictive Type: Depth (in	Layer (if observed):	•				
Restrictive Type: Depth (in	Layer (if observed):	•				
Restrictive Type: Depth (in	Layer (if observed):	•				
Type: Depth (in Remarks:	Layer (if observed):	•				
Type: Depth (in temarks:	Layer (if observed): ches):	•				
Type: Depth (in Remarks: YDROLO	Layer (if observed): ches): GY drology Indicators:		ed: check all that apply)		Hydric Soi	il Present? Yes No <u>X</u>
Restrictive Type: Depth (in Remarks: YDROLO Vetland Hy Primary India	Layer (if observed): ches): GY drology Indicators: cators (minimum of o		ed; check all that apply)		Hydric Soi	Il Present? Yes NoX
Restrictive Type: Depth (in Remarks: YDROLO Yetland Hy Primary India Surface	Layer (if observed): ches):		Water-Stained Leave	()	Hydric Soi	Il Present? Yes NoX
Restrictive Type: Depth (in Remarks: YDROLO Yetland Hy Primary India Surface High Wa	Layer (if observed): ches):		Water-Stained Leave Aquatic Fauna (B13)		Hydric Soi	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10)
Restrictive Type: Depth (in Remarks: YDROLO Yetland Hy Primary India Surface High Wa Saturati	Ches):		Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants	(B14)	Hydric Soi	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2)
Restrictive Type: Depth (in Remarks: YDROLO Yetland Hy Primary India Surface High Wa Saturati Saturati Water M	Ches): Ches): GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1)		Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oc	(B14) lor (C1)	Hydric Soi	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8)
Restrictive Type: Depth (in Remarks: YDROLO Yetland Hy Primary India Surface High Wa Saturati Saturati Water M	Ches):		Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants	(B14) lor (C1)	Hydric Soi	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2)
	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oc	(B14) lor (C1) res on Living Roo	Hydric Soi Hydric Soi Second Sui Dra Dra Lory Lory Sat	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8)
	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizosphe	(B14) lor (C1) res on Living Roo d Iron (C4)	Hydric Soi Second Sun Dra Dra Cra ts (C3)	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9)
	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oo Oxidized Rhizosphe Presence of Reduce	(B14) lor (C1) res on Living Roo d Iron (C4) on in Tilled Soils (Hydric Soi Second	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1)
Restrictive Type: Depth (in Remarks: YDROLO Yetland Hy Primary India Saturati Saturati Saturati Water M Sedimea Sedimea Drift Dea Algal Ma Iron Dea	Ches):	ne is require	Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reductio Thin Muck Surface ((B14) lor (C1) res on Living Roo d Iron (C4) on in Tilled Soils (C7)	Hydric Soi Second	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) omorphic Position (D2)
	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ne is require magery (B7	Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reductio Thin Muck Surface (Gauge or Well Data	(B14) lor (C1) res on Living Roo d Iron (C4) on in Tilled Soils (C7) (D9)	Hydric Soi Second	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) omorphic Position (D2)
	Ches):	ne is require magery (B7	Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reductio Thin Muck Surface (Gauge or Well Data	(B14) lor (C1) res on Living Roo d Iron (C4) on in Tilled Soils (C7) (D9)	Hydric Soi Second	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) omorphic Position (D2)
Restrictive Type: Depth (in Remarks: YDROLO Vetland Hy Primary India Control (International Surface High Water M Saturati Water M Saturati Drift De Algal Ma Iron Dep Inundati Sparsel	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In y Vegetated Concave vations:	ne is require magery (B7	Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reductio Thin Muck Surface (Gauge or Well Data	(B14) lor (C1) res on Living Roo d Iron (C4) on in Tilled Soils (C7) (D9) marks)	Hydric Soi Second	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) omorphic Position (D2)
Restrictive Type: Depth (in Remarks: YDROLO Vetland Hy Primary India Control (International Surface High Water M Saturati Water M Saturati Drift De Algal Ma Iron Dep Inundati Sparsel	Layer (if observed): ches):	ne is require magery (B7 Surface (B es N	Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizospher Presence of Reduce Recent Iron Reductio Thin Muck Surface (Gauge or Well Data 8) Other (Explain in Re	(B14) lor (C1) res on Living Roo d Iron (C4) on in Tilled Soils (C7) (D9) marks)	Hydric Soi Second	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) omorphic Position (D2)
Restrictive Type: Depth (in Remarks: YDROLO Yetland Hy Primary India Surface High Wa Saturati Saturati Water M Sedimen Sedimen Inundati Sparsel Surface Water	Layer (if observed): ches):	magery (B7 Surface (B es N es N	Water-Stained Leave Aquatic Fauna (B13) True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reductio Thin Muck Surface (Gauge or Well Data 8) Other (Explain in Re	(B14) lor (C1) res on Living Roo d Iron (C4) on in Tilled Soils (C7) (D9) marks)	Hydric Soi Second Sui Dra Dra Cra ts (C3) Sai Stu C6) Ge FA	Il Present? Yes NoX lary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) omorphic Position (D2)

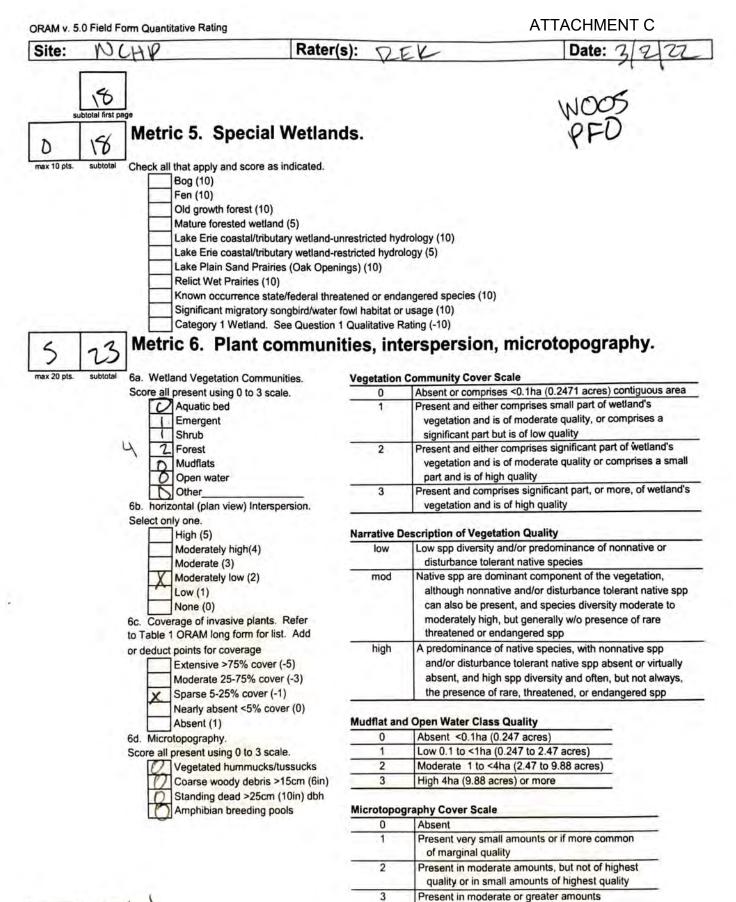
Remarks:

				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 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 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 = Hydrophytic Vegetation Indicators:
				Dominance Test is >50%
·				Prevalence Index is $≤3.0^1$
				Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
				 Morphological Adaptations (in Voide Supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
				data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
				data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must
				data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
 0 Voody Vine Stratum (Plot size:15'		 = Total C		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
 0 Voody Vine Stratum (Plot size:15'		 = Total C		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation
 0 0 0 Voody Vine Stratum (Plot size:15'		 = Total C		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic

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 ¹	Loc ²	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. ² Location: PL=	Pore Lining, M=Matrix.
lydric Soil In	dicators:				Indicators for Probler	natic Hydric Soils ³ :
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) k (A10)		Loamy Gleyed Matrix (F2)			
	Below Dark Surfac	ce (A11)	Redox Dark Surface (F6)			
	k Surface (A12)	,	Depleted Dark Surface (F7)		³ 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) nes):				Hydric Soil Present?	Yes No _X_
Restrictive La Type: Depth (inch Remarks:	nes):				Hydric Soil Present?	Yes No _X
Restrictive La Type: Depth (inch Remarks:	nes):				Hydric Soil Present?	Yes <u>No X</u>
Restrictive La Type: Depth (inch Remarks: YDROLOG Vetland Hydr	nes): SY rology Indicators:					
Restrictive La Type: Depth (inch Remarks: YDROLOG Vetland Hydr Primary Indica	rology Indicators: tors (minimum of c		ed; check all that apply)		Secondary Indicator	s (minimum of two required
	es): SY rology Indicators: tors (minimum of o /ater (A1)		Water-Stained Leaves (B9)		_ <u>Secondary Indicator</u> Surface Soil Cra	<u>s (minimum of two required</u> acks (B6)
Restrictive La Type: Depth (inch Remarks: YDROLOG Yetland Hydr Primary Indica Surface W High Wate	itors (minimum of of /ater (A1) er Table (A2)		Water-Stained Leaves (B9) Aquatic Fauna (B13)		<u>Secondary Indicator</u> Surface Soil Cra Drainage Patter	s (minimum of two required acks (B6) ns (B10)
	Tology Indicators tors (minimum of of vater (A1) er Table (A2) h (A3)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)		_ <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa	s (minimum of two required acks (B6) ns (B10) ter Table (C2)
	Thes):		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)		_ <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow	s (minimum of two required acks (B6) ns (B10) ter Table (C2) /s (C8)
	rology Indicators tors (minimum of of vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv	ing Roots (C3	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib 	s (minimum of two required acks (B6) ns (B10) ter Table (C2) /s (C8) le on Aerial Imagery (C9)
Setrictive La Type: Depth (inch Cemarks:	res): rology Indicators: tors (minimum of of /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) 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:	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Strest 	s (minimum of two required acks (B6) ns (B10) ter Table (C2) <i>r</i> s (C8) le on Aerial Imagery (C9) ssed Plants (D1)
Comparison of the sector	rology Indicators tors (minimum of of /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) 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:	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stres Geomorphic Po 	s (minimum of two required acks (B6) ms (B10) ter Table (C2) /s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
	itors (minimum of of /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) psits (B3) or Crust (B4) sits (B5)	: 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:	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Strest 	s (minimum of two require acks (B6) ns (B10) ter Table (C2) /s (C8) le on Aerial Imagery (C9) ssed Plants (D1) 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 tors (minimum of of vater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) sits (B5) n Visible on Aerial	: one is require 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:	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stres Geomorphic Po 	s (minimum of two required acks (B6) ms (B10) ter Table (C2) /s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
	res): rology Indicators: tors (minimum of of /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) sits (B5) n Visible on Aerial /egetated Concav	: one is require 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:	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stres Geomorphic Po 	s (minimum of two required acks (B6) ns (B10) ter Table (C2) /s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Restrictive La Type: Depth (inch Remarks: YDROLOG Yetland Hydr Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depo Algal Mat Iron Depos Inundation Sparsely V Field Observa	Prology Indicators: tors (minimum of of vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) sits (B5) n Visible on Aerial vegetated Concav ations:	: one is require Imagery (B7 '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	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stres Geomorphic Po 	s (minimum of two required acks (B6) ns (B10) ter Table (C2) /s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Restrictive La Type: Depth (inch Remarks: YDROLOG Yetland Hydr Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depo Algal Mat Iron Depos Inundation	nes): Fology Indicators: tors (minimum of of /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) sits (B5) n Visible on Aerial /egetated Concav ations: Present?	Imagery (B7 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	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stres Geomorphic Po 	s (minimum of two required acks (B6) ns (B10) ter Table (C2) /s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)
Restrictive La Type: Depth (inch Remarks: YDROLOG YDROLOG Vetland Hydr Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depo Algal Mat Iron Depos Inundation Sparsely V Field Observa Surface Water Vater Table P	Thesent?	Imagery (B7 re Surface (B res N 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	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stress Geomorphic Po FAC-Neutral Te 	s (minimum of two required acks (B6) ns (B10) tter Table (C2) /s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2) st (D5)
Restrictive La Type: Depth (inch Remarks: YDROLOG YDROLOG Vetland Hydr Primary Indica Surface W High Wate Saturation Water Mar Sediment Drift Depo Algal Mat Sediment Drift Depo Algal Mat Serface Water Sparsely V Field Observa Surface Water Vater Table P Saturation Pre- includes capil	Fology Indicators tors (minimum of of /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) visits (B3) or Crust (B4) sits (B5) n Visible on Aerial Vegetated Concav ations: Present? Sent? Mary fringe)	Imagery (B7 re Surface (B res N res N 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	 <u>Secondary Indicator</u> Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stress Geomorphic Po FAC-Neutral Te 	s (minimum of two required acks (B6) ns (B10) ter Table (C2) /s (C8) le on Aerial Imagery (C9) ssed Plants (D1) sition (D2)

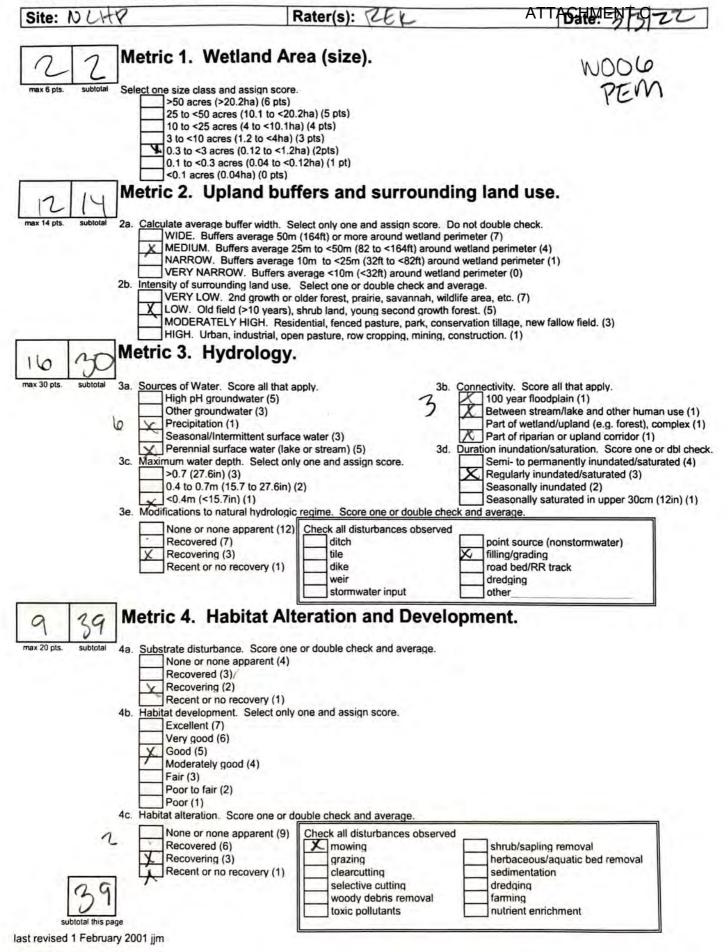


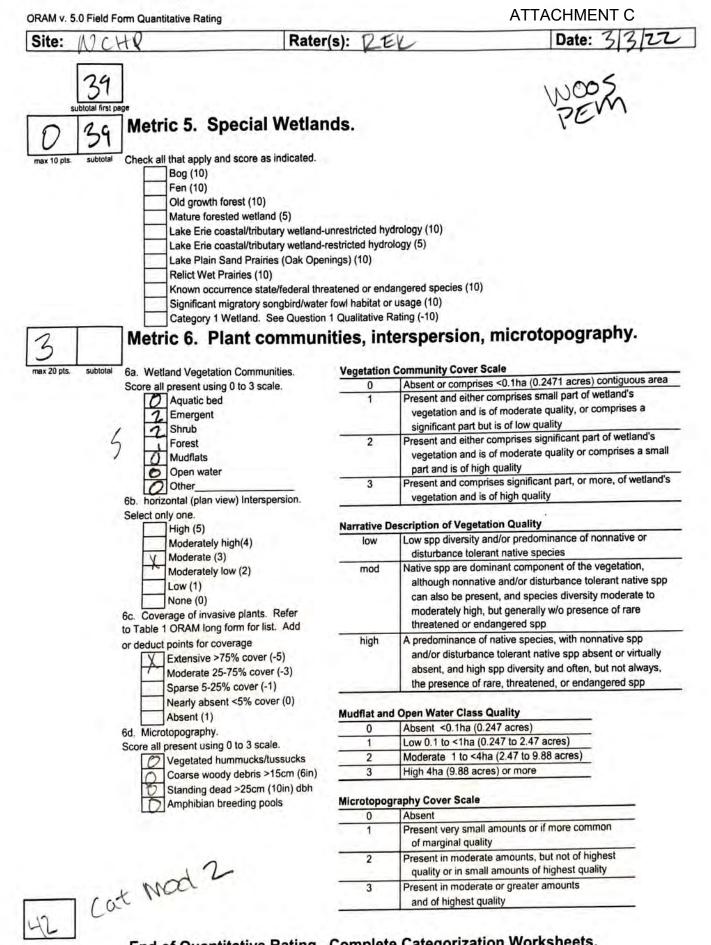


23 Cat 1

End of Quantitative Rating. Complete Categorization Worksheets.

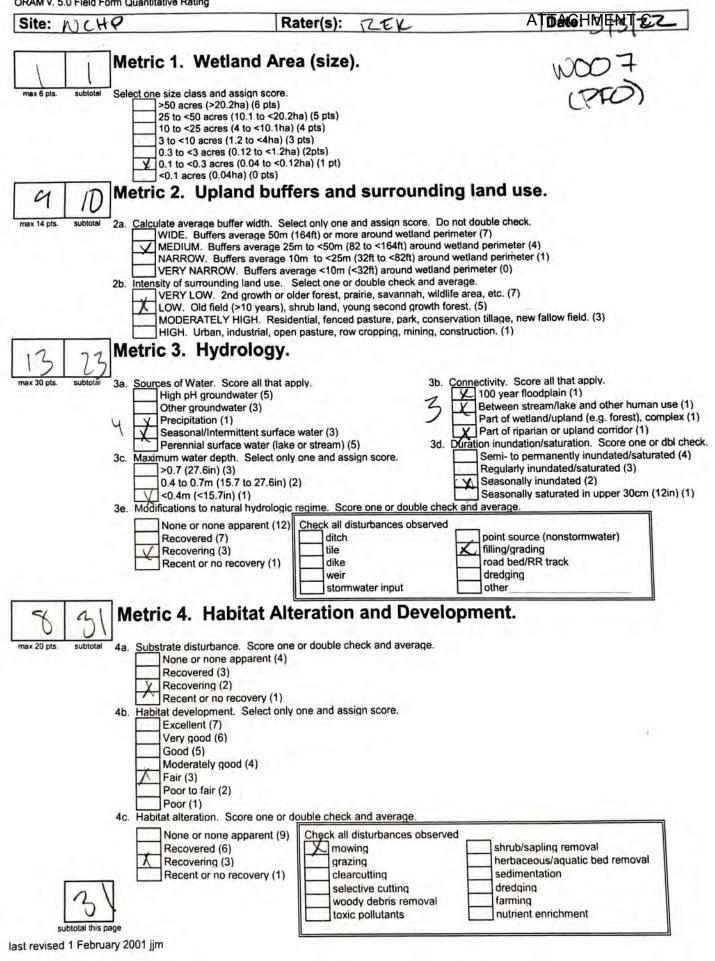
and of highest quality

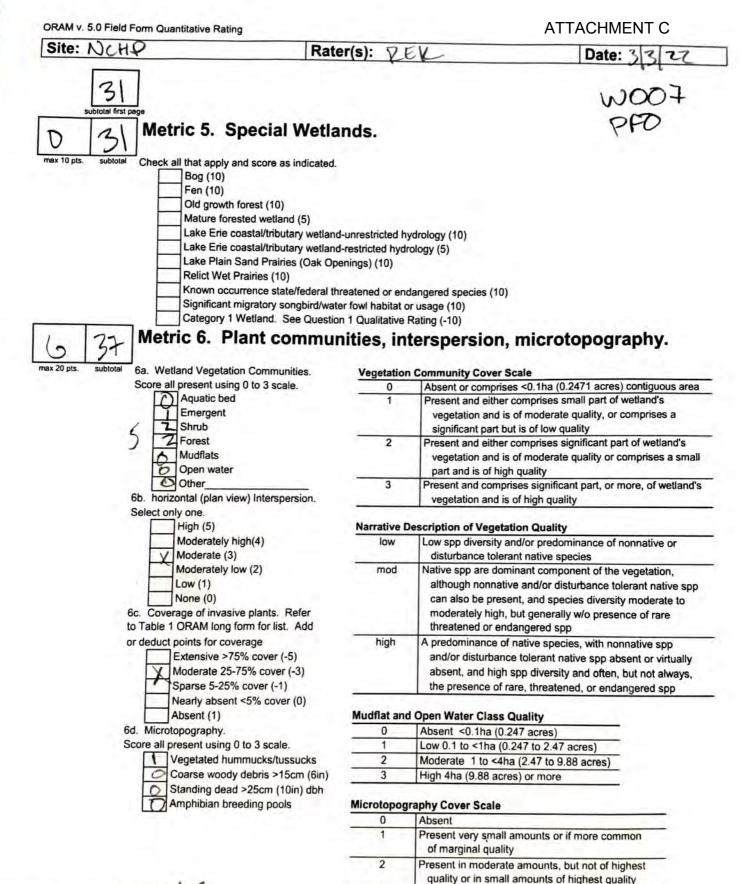




End of Quantitative Rating. Complete Categorization Worksheets.

and of highest quality





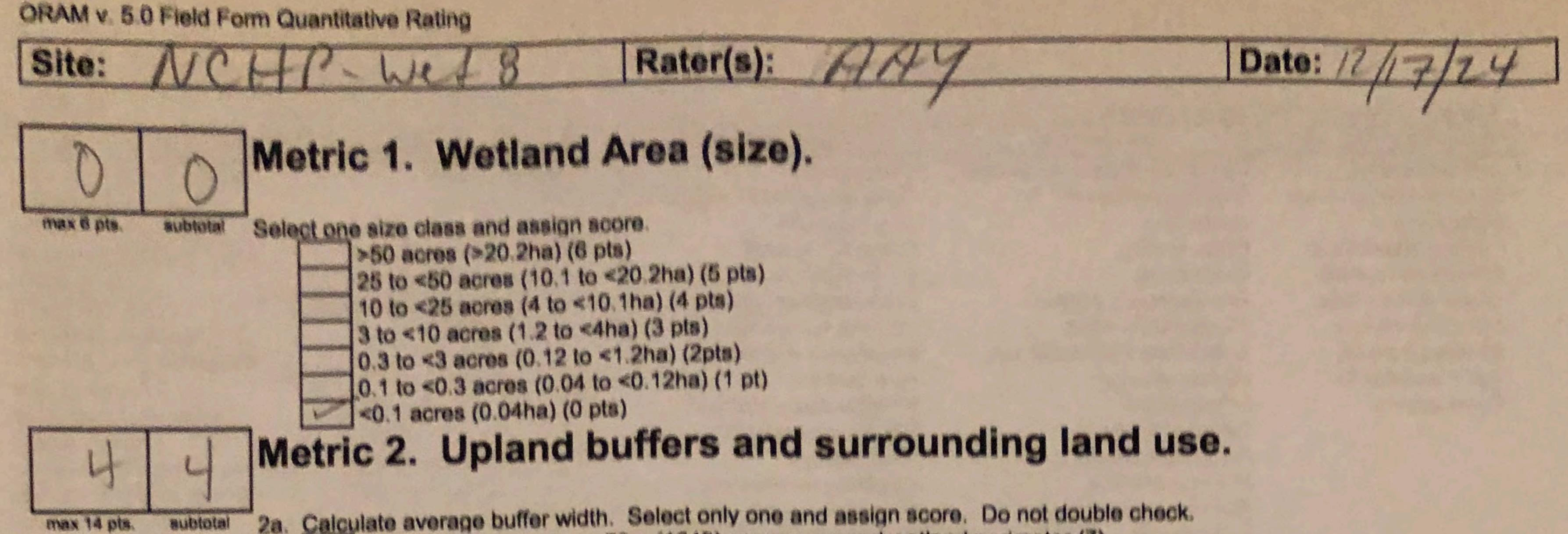
F Lat mod 2.

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.

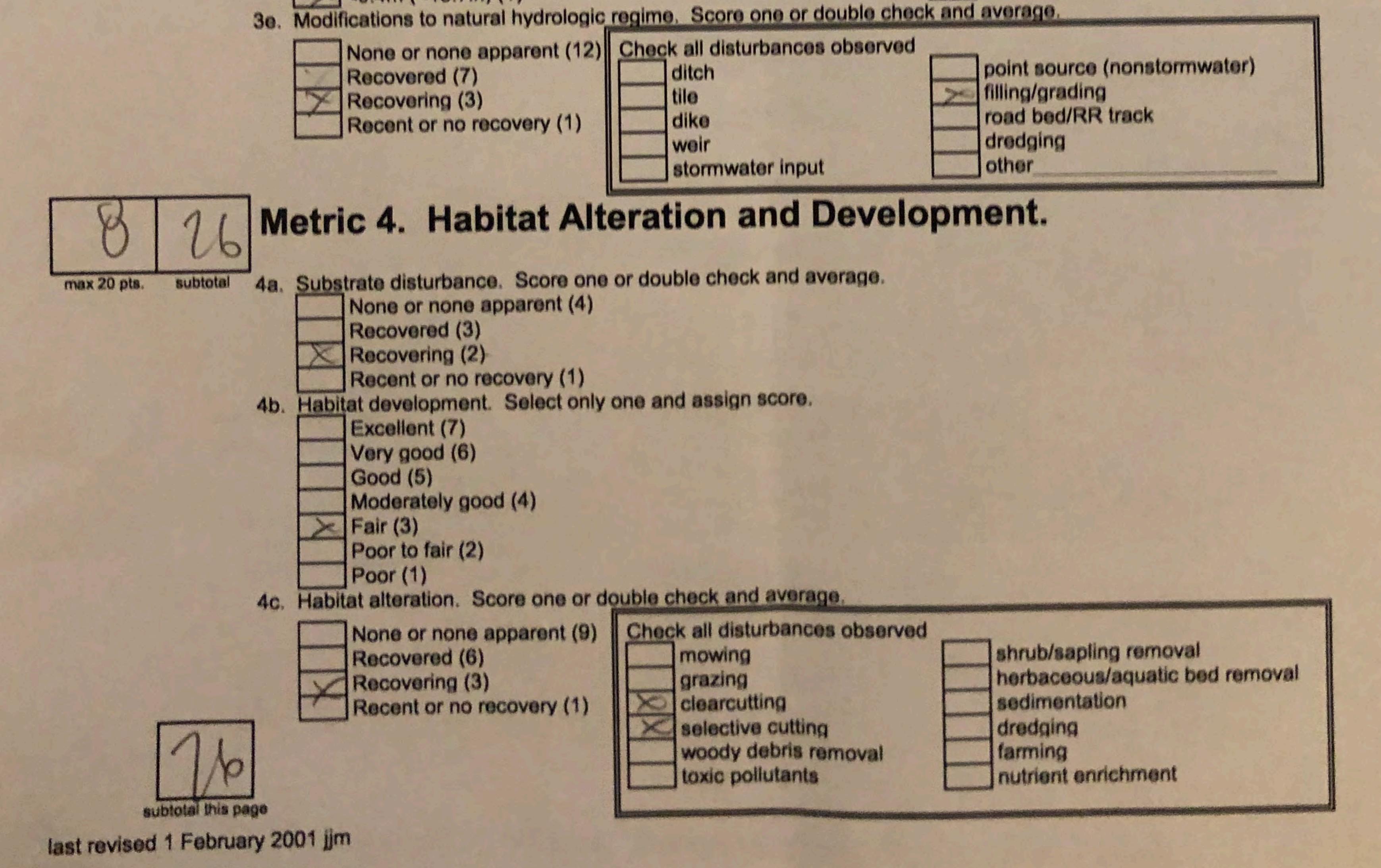
 >0.7 (27.6in) (3)

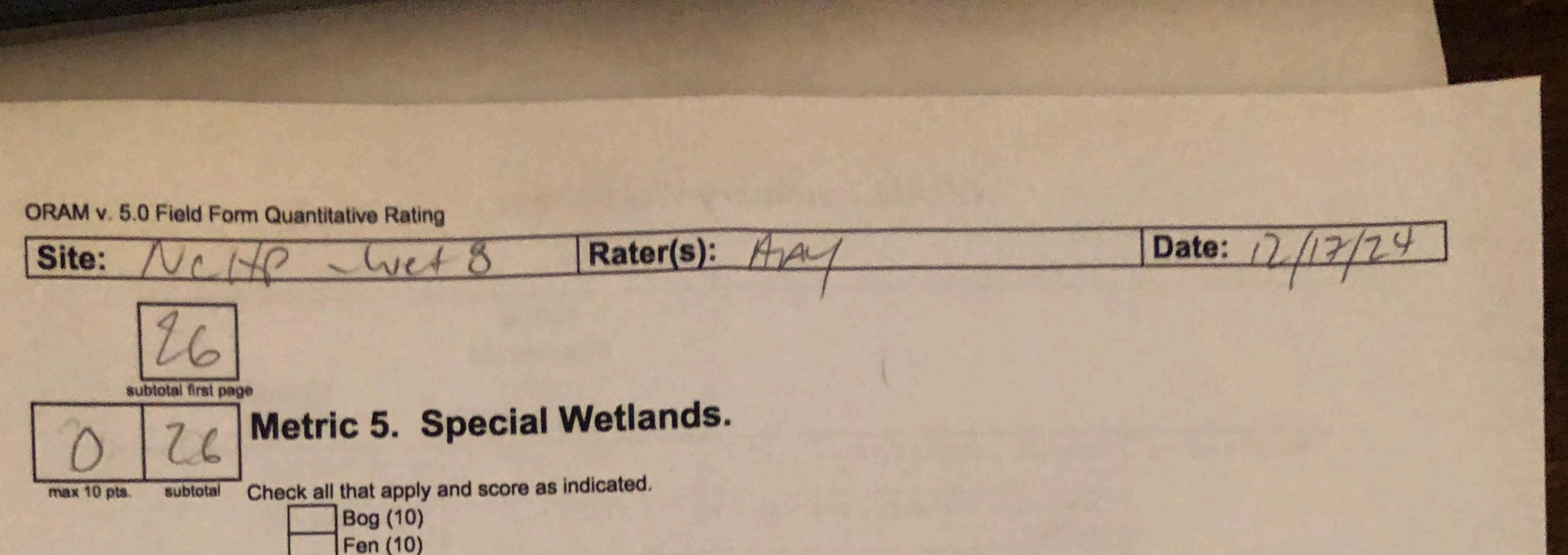
 0.4 to 0.7m (15.7 to 27.6in) (2)

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

Other_____

6b. horizontal (plan view) Interspersion.

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)

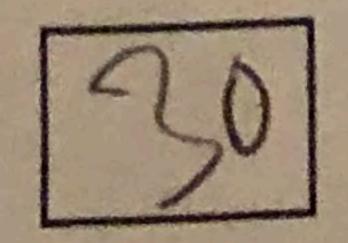
6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Present and comprises significant part, or more, of wetland's vegetation and is of high quality

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

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

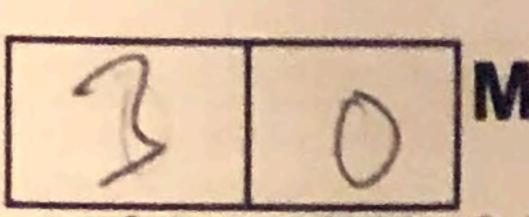
0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest guality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality



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)

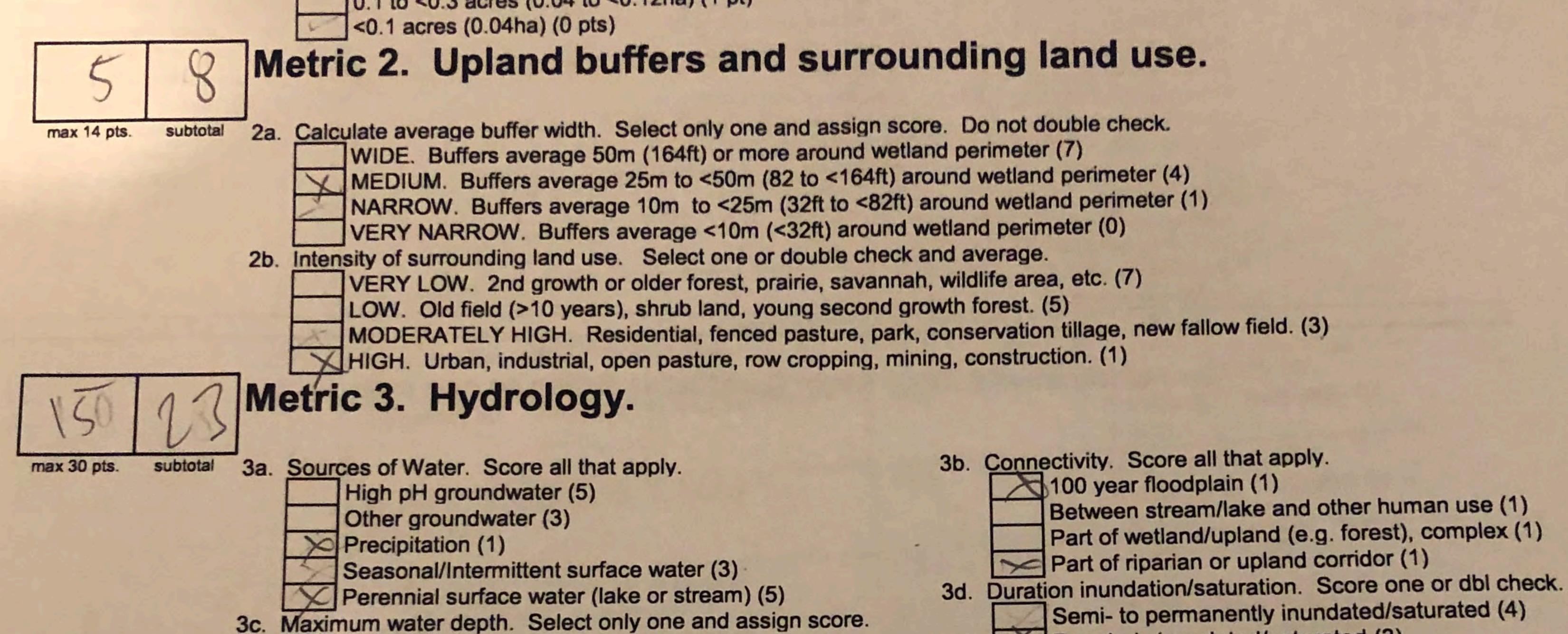
 25 to <50 acres (10.1 to <20.2ha) (5 pts)</td>

 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>

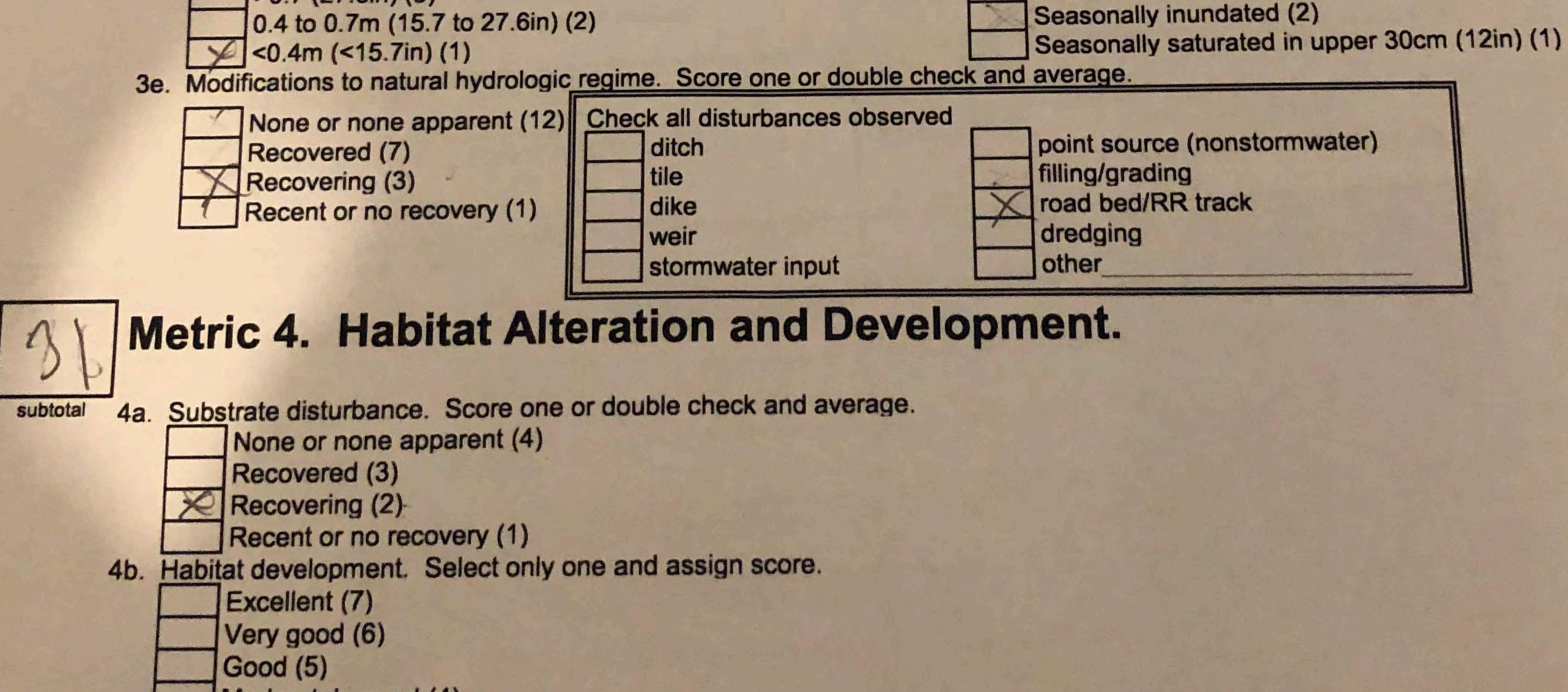
 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)</td>



>0.7 (27.6in) (3)

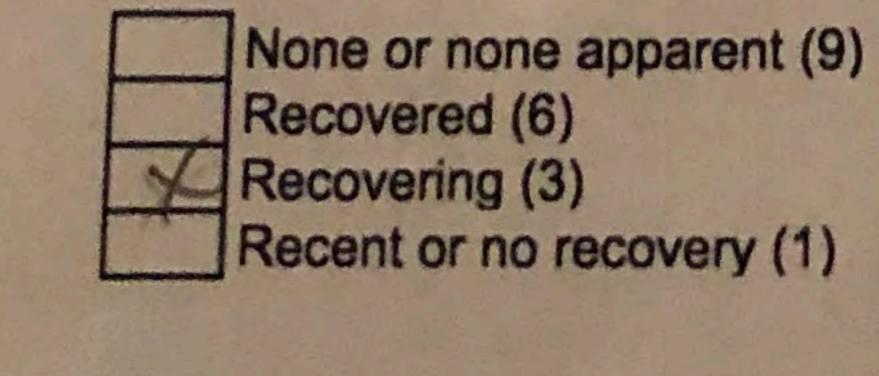
Regularly inundated/saturated (3)

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

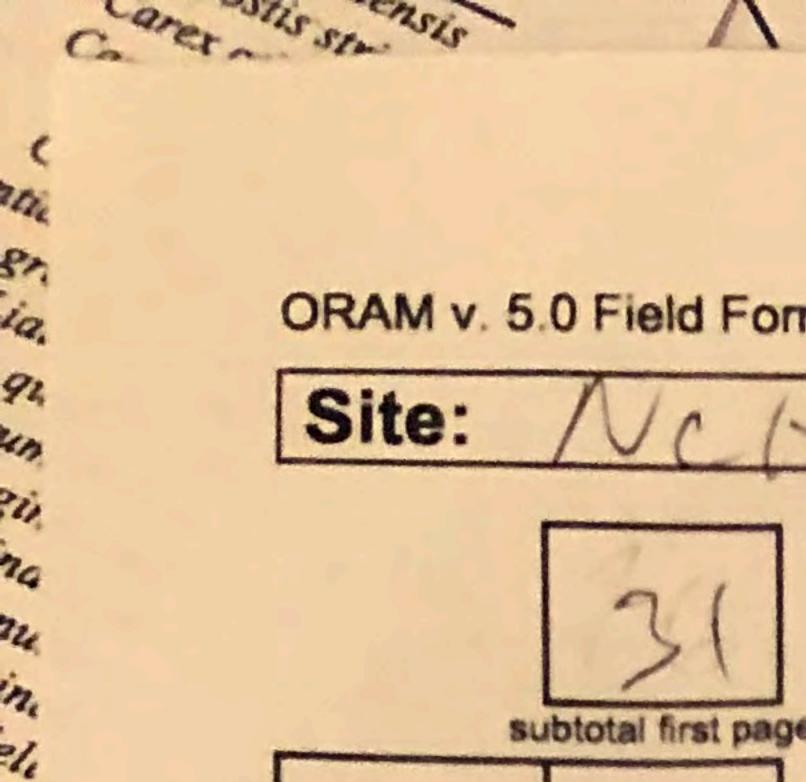
 shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

subtotal this page

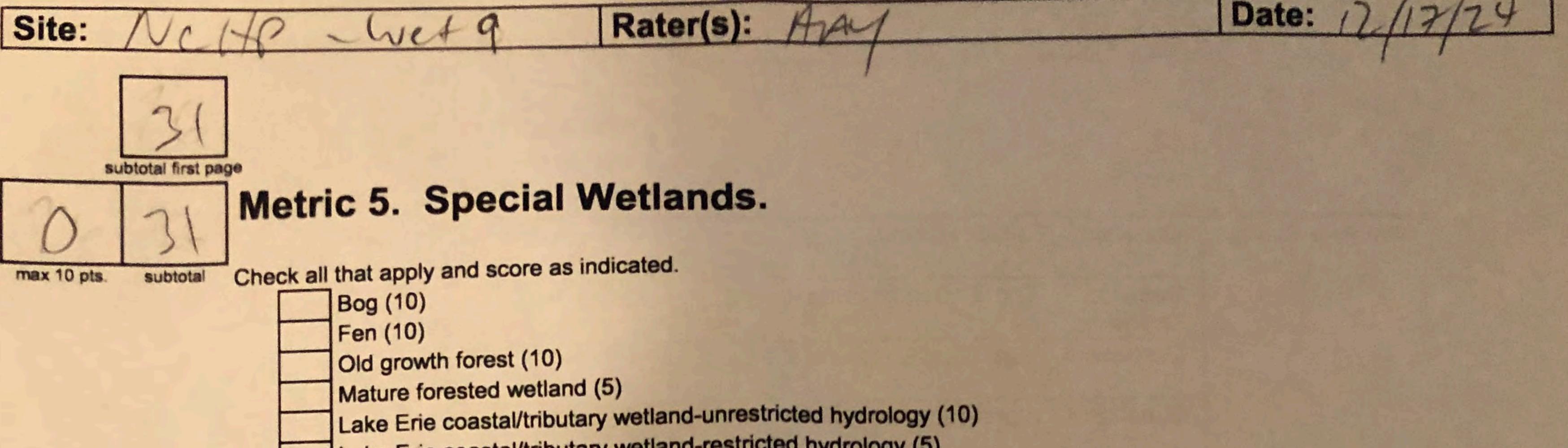
11

max 20 pts.

last revised 1 February 2001 jjm



ORAM v. 5.0 Field Form Quantitative Rating



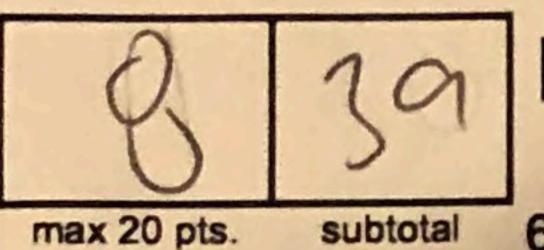
Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10)

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.

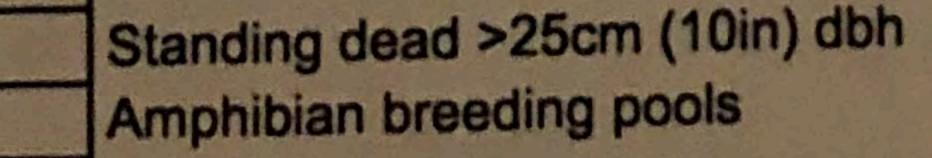
6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale. Aquatic bed Emergent -Shrub Forest Mudflats **Open water** Other

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

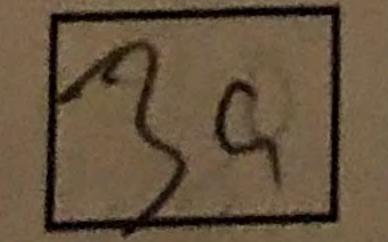
Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a 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 disturbance tolerant native species
Moderate (3) Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
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)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
Nearly absent <5% cover (0) Absent (1)	Mudflat and	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. 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 quality or in small amounts of highest quality			
3	Present in moderate or greater amounts and of highest quality			



8

End of Quantitative Rating. Complete Categorization Worksheets.

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

October 24.	2002	Revision
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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 erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with th ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) 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:	
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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

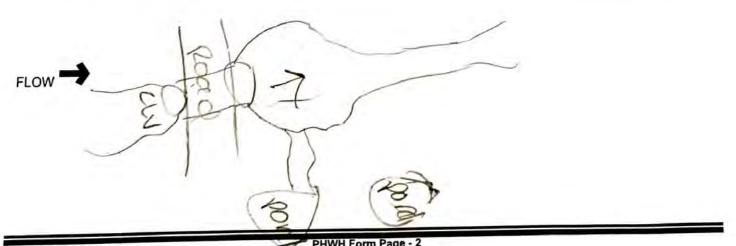
ChicEPA Prima	ry Head		Evaluation F		
		HHEI	Score (sum of m	etrics 1, 2, 3) :	<u> </u>
SITE NAME/LOCATION NCHP	5002		5+0		24.7
LENGTH OF STREAM REACH (R) 200 DATE 2 2 77 SCORE 2	LAT. 40	ONDENTS	HO RIVER CODE _	RIVER MILE	_
NOTE: Complete All Items On This	and some other states of	Part of the second 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 K/WOODY DEBRIS [3		
BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts]	-6-		RITUS [3 pts] ARDPAN [0 pt]		Substra 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 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 > 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 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS <u>Nji (& Nect</u> @	5]	□ > 1.0 m - □ ≤ 1.0 m ((Check ONLY one 1.5 m (> 3' 3" - 4' 8") [15 < 3' 3") [5 pts] ERAGE BANKFULL W	pts] 4.6	Bankf Widtl Max=3 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 (Most Predominant per B	ank) LR		
Wide >10m	\$O	Mature Forest, Wetland		Conservation Tillage	
Moderate 5-10m	00	Immature Forest, Shrub Field		Urban or Industrial	
Narrow <5m	ØØ	Residential, Park, New F	ield 🛛 🗖	Open Pasture, Row Crop	
		Fenced Pasture	00	Mining or Construction	
FLOW REGIME (At Time of I Stream Flowing Subsurface flow with isolated COMMENTS			oist Channel, isolated ry channel, no water (l	pools, no flow (Intermittent) Ephemeral)	5
SINUOSITY (Number of bend	ls per 61 m (200) ft) of channel) (Check (ONLY one box):		
	1.0	2.0		3.0 >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: EWH Name: EWH Name: 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 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 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 ATE 3227 SCORER UEK 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 SILT [3 pt] LEAF PACK/WOOD FINE DETRITUS [3 CLAY or HARDPAN MUCK [0 pts]	c score is sum of b Y DEBRIS [3 pts] pts]	trate TYPE boxes oxes A & B. PERCENT CO
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock _ ORE OF TWO MOST PREDOMINATE SUBS	0 (*)9	ARTIFICIAL [3 pts]		(B) 7
> 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	e average of 3-4 measure		OOL DEPTH (cen ck <i>ONLY</i> one box) ' 3" - 4' 8") [15 pts]	timeters):
COMMENTS		AVERAGE B	ANKFULL WIDTH	(meters)
RIPARIAN ZONE AND FLOODF <u>RIPARIAN WIDTH</u> L R (Per Bank) Wide >10m Moderate 5-10m 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 □ □ □ Ca √2 ∮2 Ur □ □ □ ○	ng downstream 🖈 onservation Tillage ban or Industrial pen Pasture, Row
COMMENTS	Fenced Past	ure		ining or Construction
FLOW REGIME (At Time of Evalue Stream Flowing Subsurface flow with isolated pools COMMENTS_		Moist Chan	nel, isolated pools, I, no water (Epher	, no flow (Intermittent) 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) (Y/N) Voucher? (Y/N) V
ID number. Include appropriate field data sheets fro sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroin	om the Primary Headwater Habitat Assessment Manual) (Y/N) Voucher? (Y/N) vertebrates Observed? (Y/N) Voucher? (Y/N)
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October 24, 2002 Revision

	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	`	
	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 Met
	BLDR SLABS [16 pts]	PERCENT	TYPE D	SILT [3 pt]		<u>HERCENT</u>	Poir
	BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]			LEAF PACK/WOOD 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 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	· · · · · · · · · · · · · · · · · · ·			 A second sec second second sec	ach at the time of	Pool D
a support of the local data	ation. Avoid plunge pools from ro entimeters [20 pts]	ad culverts or s	torm water p	ipes) (Check ONLY > 5 cm - 10 cm [15	and a state of the		Max =
	- 30 cm [30 pts] 22.5 cm [25 pts]		g	< 5 cm [5 pts] 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 neters (> 13') [30 pts]	e average of 3	-4 measuren	nents) (Chec > 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 L R	RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH (Per Bank)	FLOODPL	AIN QUALIT		LR		
	RIPARIAN WIDTH (Per Bank)		AIN QUALIT (Most Predon Mature Fores	Y ninant per Bank) it, Wetland		Conservation Tillage	
LR	<u>RIPARIAN WIDTH</u> (Per Bank)		AIN QUALIT (Most Predon Mature Fores	<u>Y</u> ninant per Bank)	LR		
	<u>RIPARIAN WIDTH</u> (Per Bank) Wide >10m		AIN QUALIT (Most Predon Mature Fores Immature For Field	Y ninant per Bank) it, Wetland		Conservation Tillage Urban or Industrial Open Pasture, Row	
	RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m		AIN QUALIT (Most Predon Mature Fores Immature For Field	Y ninant per Bank) it, Wetland rest, Shrub or Old Park, New Field		Conservation Tillage Urban or Industrial	
	RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Eva		AIN QUALIT (Most Predon Mature Fores Immature For Field Residential, P Fenced Pastu	Y ninant per Bank) t, Wetland rest, Shrub or Old Park, New Field ure a b <u>ox</u>):		Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	
	RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	PLAIN QUALIT FLOODPL L R D D F D D F Iuation) (Cher	AIN QUALIT (Most Predon Mature Fores Immature For Field Residential, P Fenced Pastu	Y ninant per Bank) t, Wetland rest, Shrub or Old Park, New Field ure box): Moist Chann		Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	
	RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Eva Stream Flowing Subsurface flow with isolated poor	PLAIN QUALIT FLOODPL L R D D F D D F Iuation) (Chemical (Interstitial)	AIN QUALIT (Most Predon Mature Fores Immature For Field Residential, F Fenced Pastu ck ONLY one	Y ninant per Bank) it, Wetland Park, New Field ure box): Dry channel,	L R D X D X D D D D D D D	Conservation Tillage Urban or Industrial Open Pasture, Row Crop 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 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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October 24, 2002 Revision

				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] BEDROCK [16 pt]			LEAF PACK/WOODY FINE DETRITUS [3]		
20	COBBLE (65-256 mm) [12 pts]	5		CLAY or HARDPAN		
	GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts]	100		MUCK [0 pts] ARTIFICIAL [3 pts]		10
<i>.</i> .	Total of Percentages of			ACTIVICIAL [3 pta]		
	fr Slabs, Boulder, Cobble, Bedroc		~ 9			^(B) 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]) - 22.5 cm [25 pts]			< 5 cm [5 pts] 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] 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 R (Per Bank)	DPLAIN QUAL FLOODP L R	ITY ☆NOT LAIN QUALITY (Most Predomi	nant per Bank)	LR	
6	RIPARIAN WIDTH R (Per Bank) Wide >10m		ITY ☆NOT LAIN QUALITY (Most Predomi Mature Forest,	nant per Bank)		onservation Tillage
Ļ	RIPARIAN WIDTH R (Per Bank) Wide >10m Moderate 5-10m		ITY ☆NOT LAIN QUALITY (Most Predomi Mature Forest,	nant per Bank) Wetland		onservation Tillage rban or Industrial
	RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m		ITY ANOT LAIN QUALITY (Most Predomi Mature Forest, Immature Fore Field Residential, Pa	nant per Bank) Wetland st, Shrub or Old ark, New Field		onservation Tillage rban or Industrial pen Pasture, Row rop
Ļ	RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m		ITY ☆NOT LAIN QUALITY (Most Predomi Mature Forest, Immature Fore Field	nant per Bank) Wetland st, Shrub or Old ark, New Field		onservation Tillage rban or Industrial pen Pasture, Row
	RIPARIAN WIDTH R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS		ITY ☆NOT LAIN QUALITY (Most Predomi Mature Forest, Immature Fore Field Residential, Pa Fenced Pastur	nant per Bank) Wetland st, Shrub or Old ark, New Field e		onservation Tillage rban or Industrial pen Pasture, Row rop
	RIPARIAN WIDTH R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of E Stream Flowing	Valuation) (Ch	ITY ANOT LAIN QUALITY (Most Predomi Mature Forest, Immature Fore Field Residential, Pa Fenced Pastur eck ONLY one	nant per Bank) Wetland st, Shrub or Old ark, New Field e box): Moist Chann	L R C C C U C U C C C C C C W N el, isolated pools	onservation Tillage rban or Industrial pen Pasture, Row rop lining or Construction , no flow (Intermittent)
	RIPARIAN WIDTH R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of E	Valuation) (Ch	ITY ANOT LAIN QUALITY (Most Predomi Mature Forest, Immature Fore Field Residential, Pa Fenced Pastur eck ONLY one	nant per Bank) Wetland Ist, Shrub or Old ark, New Field e box): Moist Chann		onservation Tillage rban or Industrial pen Pasture, Row rop lining or Construction , no flow (Intermittent)
	RIPARIAN WIDTH R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of E Stream Flowing Subsurface flow with isolated p	Valuation) (Ch	ITY ANOT LAIN QUALITY (Most Predomi Mature Forest, Immature Fore Field Residential, Pa Fenced Pastur eck ONLY one	nant per Bank) Wetland st, Shrub or Old ark, New Field e box): Dry channel,	L R C C U C U C C C C M M el, isolated pools no water (Ephel	onservation Tillage rban or Industrial pen Pasture, Row rop lining or Construction , no flow (Intermittent)

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October 24, 2002	Revision

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 Distance from Evaluated Stream 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 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 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 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 (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BUDK SLASS (16 pts) BOULDER (>255 mm) (16 pts) BEDR SLASS (16 pts) BOULDER (>255 mm) (17 pts) GRAVEL (24 mm) (16 pts) BUDK SLASS (16 pts) BEDR SLASS (16 pts) BUDK SLASS (16 pts) CORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Total of Percentages of BUDK SLASS Boulder, Cobble, Bedrock COME (10 pt) CORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Total of Percentages of BUDK SLASS (16 pts) Statistical context at the time of evaluation. Avoid plunge pools from road culverts or storm water, pipes) (Check ONLY one box): > 30 centimeters (20 pts) > 10 - 22.5 cm (25 pts) COMMENTS MAXIMUM POOL DEPTH (centimeters): > 40 meters (> 13 (30 pts) > 10 - 22.5 cm (25 pts) COMMENTS MAXIMUM POOL DEPTH (centimeters): > 40 meters (> 13 (30 pts) > 10 - 22.5 cm (25 pts) COMMENTS MAXIMUM POOL DEPTH (centimeters): > 40 meters (> 13 (30 pts) > 10 - 22.5 cm (25 pts) COMMENTS MAXIMUM POOL DEPTH (centimeters): S (10 m (: 5 33) [5 pts] > 15 m - 3.0 m (> 97 - 47 8') [20 pts) COMMENTS Macrow <5m Disinformation must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY Narrow <5m Disinformation for Bank) Residential, Park, New Field Dist Channel, isolated pools, no flow (Intermitten) Dy channel, no water (Ephemeral) COMMENTS Subsurface flow with isolated pools (Intersitial) COMMENTS Dist Channel, isolated pools, no flow (Intermitten) Dy channel, no water (Ephemeral) 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 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 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 Bidr Slabs, Boulder, Cobble, Bedrock GRAVEL (2-64 mm) [0 pts] Total of Percentages of 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 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 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 evaluation. Avoid plunge pools	from road culverts or	ol depth within the 61 meter (200 fr 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): > 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		
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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		
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None Fenced Pasture Mining or Construction COMMENTS	L R (Per Bank) 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) Wide >10m Moderate 5-10m		Immature Forest, Shrub or Old 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>\$</td> <td>Immature Forest, Shrub or Old Field Residential, Park, New Field</td> <td>Open Pasture, Roy Crop</td> <td></td>	\$	Immature Forest, Shrub or Old Field Residential, Park, New Field	Open Pasture, Roy Crop	
COMMENTS	L R (Per Bank) Image: Description of the state st	\$	Immature Forest, Shrub or Old Field Residential, Park, New Field	Open Pasture, Roy Crop	
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14

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 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 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 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 ertebrates Observed? (Y/N) Voucher? (Y/N) V	
Comments Regarding Biology:			
		EAM REACH (This <u>must</u> be completed): nation and a narrative description of the stream's location	
50	PC, barl gro	ind	(
FLOW ->		6101	
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		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 (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 Bldr Slabs, Boulder, Cobble, Bedrock CO (A) (B) (B)			HHEI Score	uation (FOM HMENT (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 TREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVE IDENTIFY (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate present. Check ONLY on HARDPAN 10 pd 1 BULD REP (256 mm) 112 pts) CLAY or HARDPAN 10 pd 1 CLAY OF HARDPAN 10 pd 1 CLAY or HARDPAN 10 pd 1 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 (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 ber of significant substrate	substrate present. Check ONLY tw 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 Btdr Sibes, Boulder, Cobble, Bedrock Gamma (2-64 mm) (9 pts) Gamma (2-64 mm) (9 pts) Total of Percentages of 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 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]
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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)
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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:
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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]	
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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 (> 9' 7" - 13' > 1.5 m - 3.0 m (> 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 (> 9' 7" - 13' > 1.5 m - 3.0 m (> 9' 7" - 4' 1</td> <td>8") [20 pts]</td> <td>AVERAGE</td> <td></td>	3.0 m - 4.0 m (> 9' 7" - 13' > 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] This AND FLOODPLAIN QUA	AVERAGE s informatión <u>must</u> also be comple 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] This AND FLOODPLAIN QUA <u>H FLOOD</u>	AVERAGE s informatión <u>must</u> also be comple ALITY ANOTE: River Left (L) an OPLAIN QUALITY	ated 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] This AND FLOODPLAIN QUA <u>H FLOOD</u> L R	AVERAGE	eted 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] This AND FLOODPLAIN QUA H <u>FLOOD</u> L R L R	AVERAGE s informatión <u>must</u> also be comple ALITY ANOTE: River Left (L) ar PLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	eted nd Right (R) as looking downstream L R 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] This AND FLOODPLAIN QUA H <u>FLOOD</u> L R D n 	AVERAGE a informatión <u>must</u> also be comple ALITY ANOTE: River Left (L) ar DPLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field	eted nd Right (R) as looking downstream L R Conservation Tillag 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] AND FLOODPLAIN QUA H FLOOD L R L R D D N	AVERAGE a informatión <u>must</u> also be completed ALITY ANOTE: River Left (L) ar AVERAGE ALITY ANOTE: River Left (L) ar ANOTE: River Left (L) ar	eted nd Right (R) as looking downstream L R Conservation Tillag D D Urban or Industrial Open Pasture, Row 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] AND FLOODPLAIN QUA H FLOOD L R L R D D N	AVERAGE a informatión <u>must</u> also be completed ALITY ANOTE: River Left (L) ar AVERAGE ALITY ANOTE: River Left (L) ar ANOTE: River Left (L) ar	eted nd Right (R) as looking downstream L R Conservation Tillag D D Urban or Industrial Open Pasture, Row 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] AND FLOODPLAIN QUA H FLOOD L R D D N L R D D D D D D D D D D D D D D D	AVERAGE a informatión <u>must</u> also be completed ALITY ANOTE: River Left (L) ar DPLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture	eted nd Right (R) as looking downstream L R Conservation Tillag D D Urban or Industrial Open Pasture, Row 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] AND FLOODPLAIN QUA H FLOOD L R D D N 1 1 1 1 1 1 1 1 1 1 1 1 1	AVERAGE a informatión <u>must</u> also be comple ALITY ANOTE: River Left (L) ar DPLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture Check ONLY one box): Moist Che	eted 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] AND FLOODPLAIN QUA H FLOOD L R D D N 1 1 1 1 1 1 1 1 1 1 1 1 1	AVERAGE	ated 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] This AND FLOODPLAIN QUA H FLOOD L R D D N Time of Evaluation) (C h isolated pools (Interstiti	AVERAGE	ated nd Right (R) as looking downstream Conservation Tillag DSU Urban or Industrial Open Pasture, Row Crop Mining or Construct annel, isolated pools, no flow (Intermit 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] This AND FLOODPLAIN QUA H FLOOD L R L R C R C R C R C R C R C R C R 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 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 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

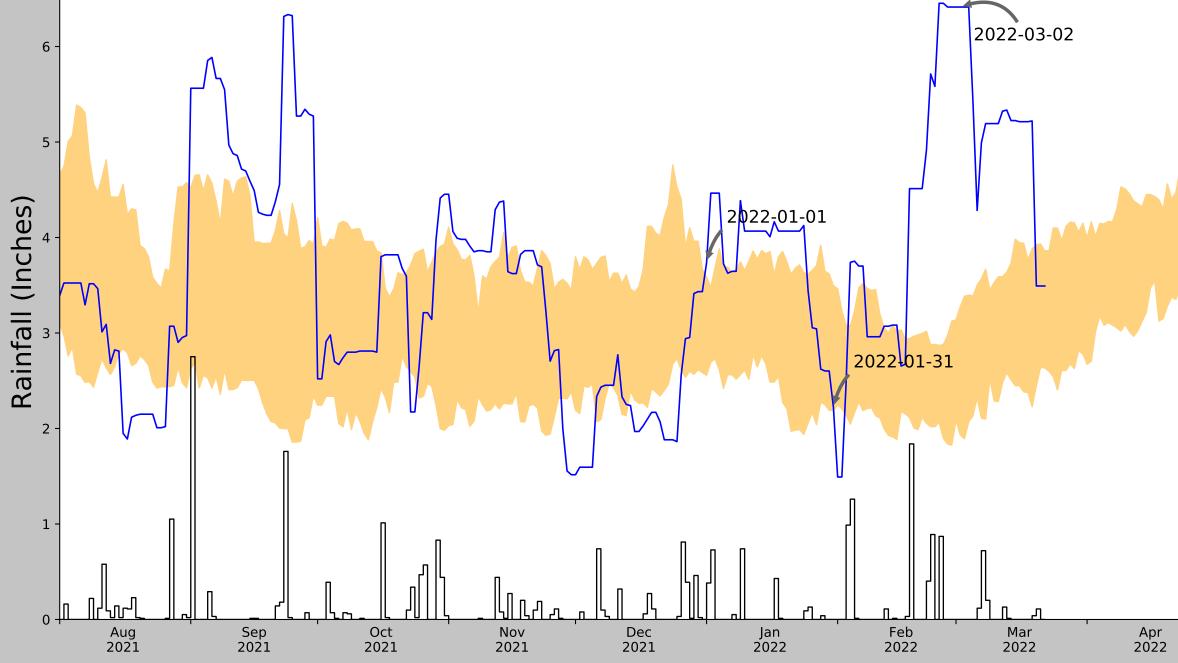
October 24, 2002 Revision

PHWH Form Page - 2

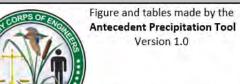


Appendix C | USACE Antecedent Precipitation Tool





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

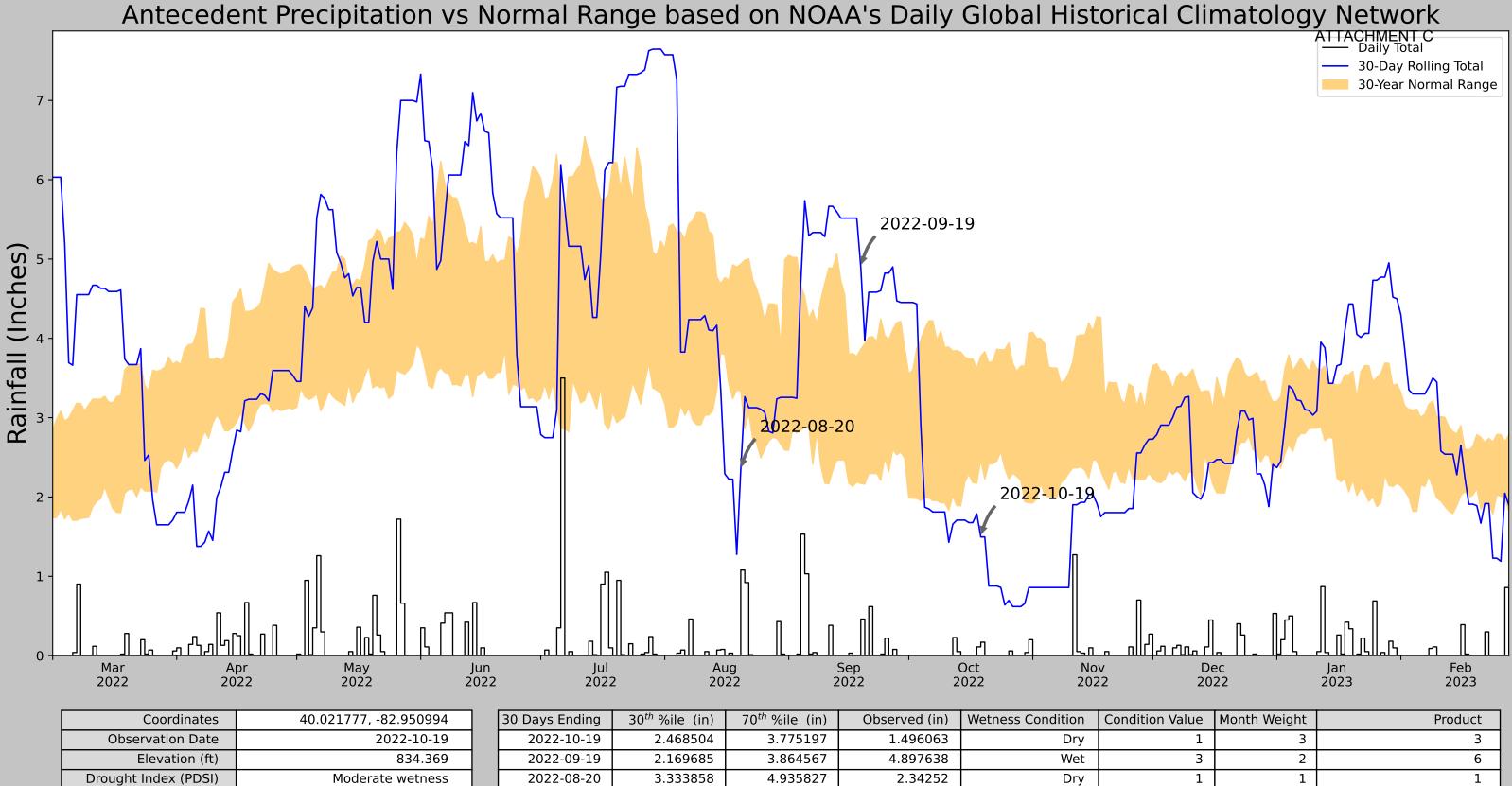


Written by Jason Deters U.S. Army Corps of Engineers

30 Days Ending	30 th %ile (in)	70 th %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 Δ	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 — Daily Total — 30-Day Rolling Total 30-Year Normal Range
Jun Jul 2022 2022







WebWIMP H₂O Balance

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

Wet Season

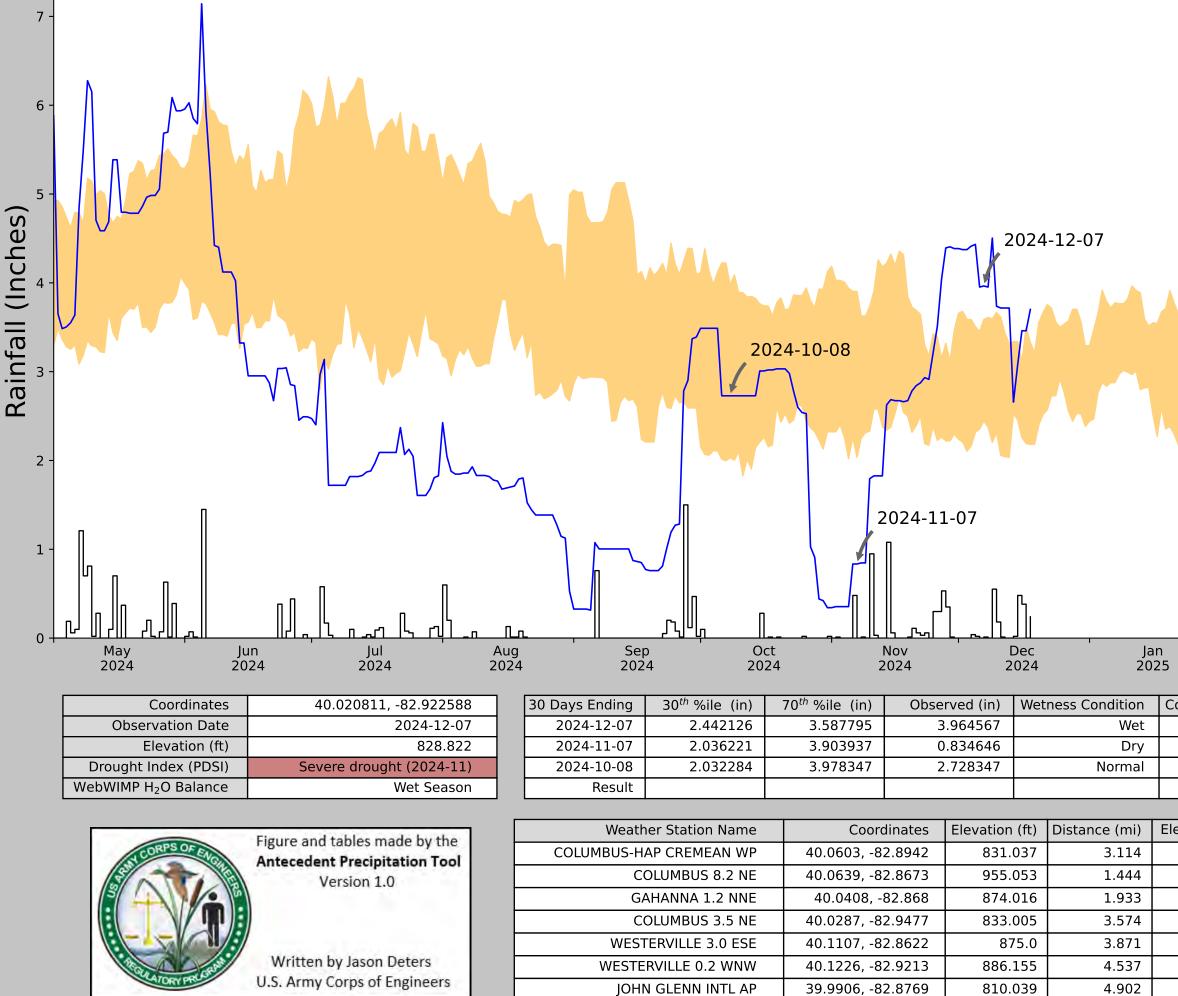
Result

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

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	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 2025		Mar Apr 2025 2025
Condition Value	Month Weight	Product
3	3	9
1	2	2
2	1	2
		Normal Conditions - 13

	-		
evation Δ	Weighted Δ	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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