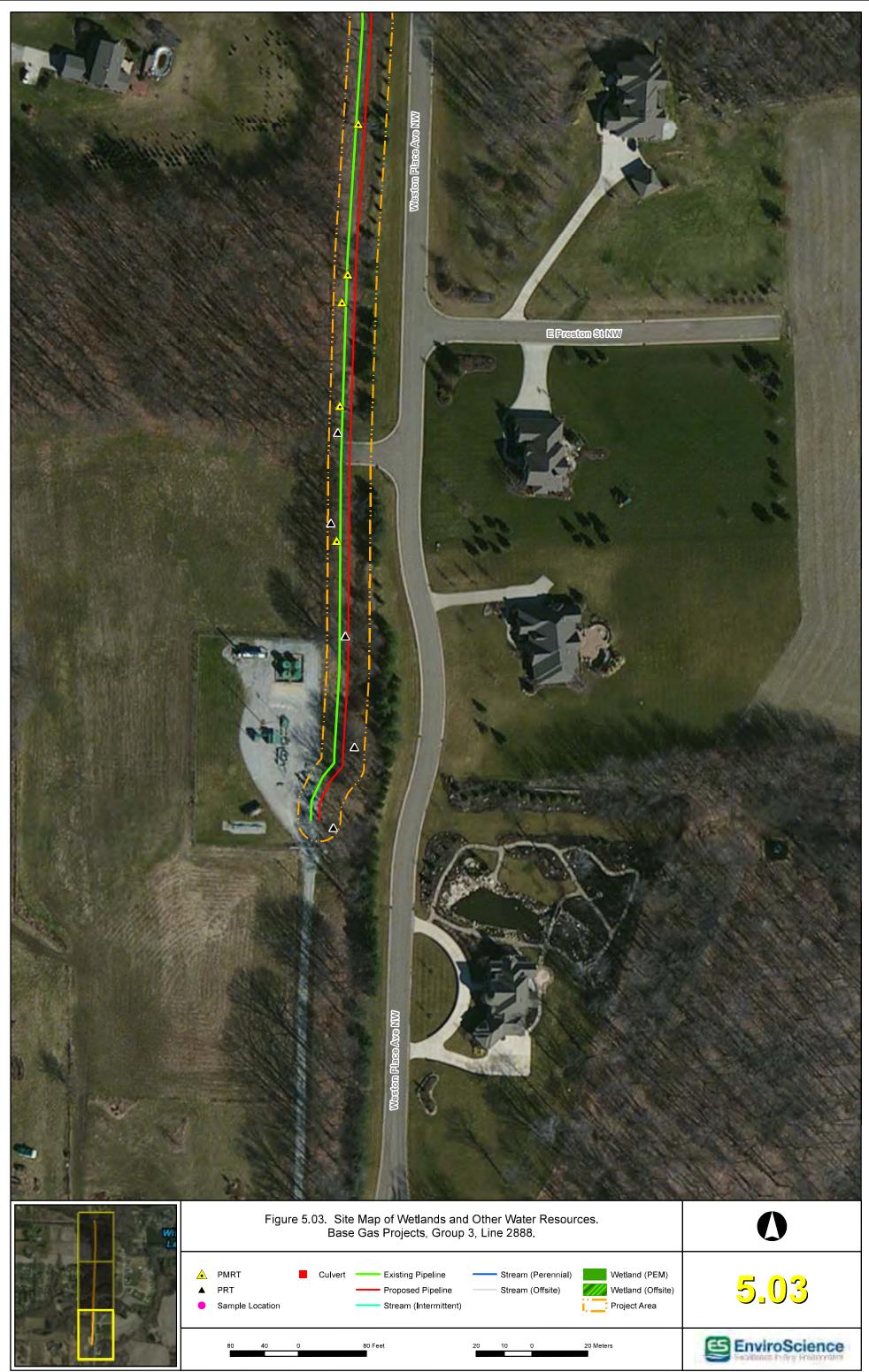


Group 3, Line 2888/GIS/Map5_Site_REV.mxd

Basemap courtesy of ESRI (Microsoft 2010).



Path: P:\Ecological Survey\Dominion\EL_Non_PIR\BasGasProjects\Base Gas Projects, Group 3, Line 2888\GIS\Map5_Site_REV.mxd

Basemap courtesy of ESRI (Microsoft 2010).

Appendix B:

Photographs



Photo 1. Sample Plot 1 in Wetland 2.



Photo 2. Sample Plot 2 within upland forest.



Photo 3. Sample Plot 3 within Wetland 4.



Photo 4. Sample Plot 4 within upland forest.



Photo 5. Sample Plot 5 in Wetland 5.



Photo 6. Wetland 1 facing north.



Photo 7. Wetland 2 facing north.



Photo 8. Wetland 3 facing south.



Photo 9. Wetland 4, facing north.



Photo 10. Wetland 5 facing southeast.



Photo 11. Nimisila Creek facing west downstream.



Photo 12. Nimisila Creek facing east upstream.

Base Gas Projects, Group 3, Line 2888 Photographed October 25, 2012



Photo 13. Nimisila Creek substrate.



Photo 14. S-1 facing south upstream.



Photo 15. S-1 facing north downstream.



Photo 16. S-1substrate.

Base Gas Projects, Group 3, Line 2888 Photographed October 25, 2012



Photo 17. Stream 2a facing north upstream.



Photo 18. Stream 2a facing south downstream.



Photo 19. Stream 2a substrate.



Photo 20. Stream 2b facing east upstream.



Photo 21. Stream 2b facing west downstream.



Photo 22. Stream 2b substrate.

Base Gas Projects, Group 3, Line 2888 Photographed October 25, 2012



Photo 23. Typical potential roost tree in the project area, shagbark hickory.

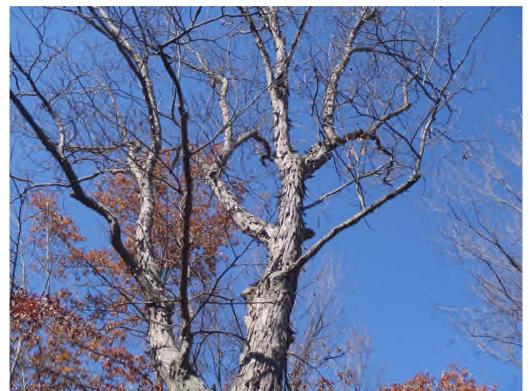
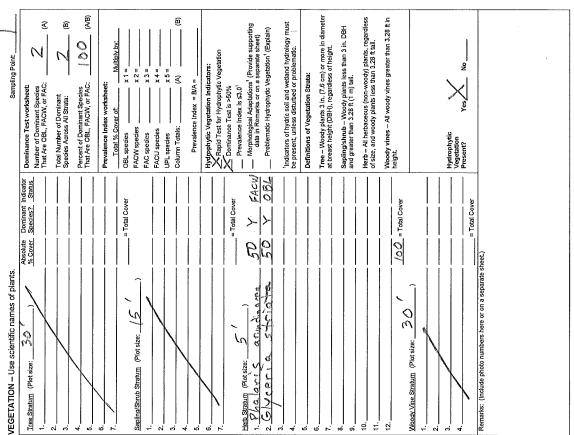


Photo 24. Typical potential maternity roost tree in the project area, shagbark hickory.

Appendix C:

Routine Wetland Determination Data Forms



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Northcentral and Northeast Region – Interim Version

Sampling Point	Stairs. 2. Location: PL=Pore Liniteg, M=Matrix.	 B) - Coast Prairie Redox (A15) (LRR K, L mLRA 149E) Coast Prairie Redox (A15) (LRR K, L mLRA 149E) Coast Prairie Redox (A15) (LR K, L) Dark Surface (S7) (LR K, L) Polyvalue Below Surface (S3) (LR K, L) Inon-Manganese Masses (LR K, L) Polymaly Coast (LR K, L) Polymaly Coast	Northcentral and Northeast Region – Interim Version
OIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth $\frac{1}{2000}$ $\frac{1}{2} \cdot \frac{1}{2}$ $\frac{1}{2} \cdot \frac{1}{2000}$ $\frac{1}{2} \cdot \frac{1}{2000}$ $\frac{1}{2} \cdot \frac{1}{2000}$ $\frac{1}{2} \cdot \frac{1}{2000}$ $\frac{1}{2} \cdot \frac{1}{20000}$ $\frac{1}{2} \cdot \frac{1}{200000}$ $\frac{1}{2} \cdot \frac{1}{200000000000000000000000000000000000$	Types: C=Concentration, D=Depletion, RM=-Reduced Matrix, CS=Covered or Coated Sand Grains.	This is the second of the second s	
SOIL Profile Description: (Describe to the de Peptin Interies) 0 - R 0 - R 2 - 2D 5 + 4 + 1 1 - 0	Type: C-Concentration, D-Depletion, Rt	Thistics (A) Histics Explexion (A2) Histic Explexion (A2) Black Histic (A3) Straffied Layers (A5) Straffied Layers (A5) Thick Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Redor (S5) Dark Surface (A12) Sandy Mucky Mineral (S1) Dark Surface (S1) Dark Surface (S1) Photications of hydrophyfic vegetation and well Restrictive Layer (If observed): Type: Depth (inches):	US Army Corps of Engineers

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10, 25.12
 Water-Shained Leaves (BS)
 Drainage Patems (B10)

 Aquate Fauna (B13)
 Moss Trim Lines (B10)

 Mard Deposits (B15)
 Moss Trim Lines (B10)

 Mard Deposits (B15)
 Dry-Season Water Table (C2)

 Mard Deposits (B15)
 Dry-Season Water Table (C2)

 Oxidized Rhizospheres on Living Roots (C3)
 Saturation Visite on Aerial Imagery (C3)

 Presence of Readed in (C4)
 Saturation Visite on Aerial Imagery (C3)

 Recent In Readed in (C4)
 Saturation Position (D2)

 Thin Muck Surface (C7)
 Shanlow Aquitard (D3)

 Drote (Explain in Remarke)
 EACAMANTA Tree (D3)
 SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. State: $\frac{2}{2}$ Sampling Point $\frac{2}{2}$ Secondary Indicators (minimum of two required No ž NY avo logy Act <u>N C Sampling Date:</u>_ (If needed, explain any answers in Remarks.) Are "Normal Circumstances" present? Yes Surface Soil Cracks (B6) Wetland Hydrology Present? Yes FAC-Neutral Test (D5) å Datum: (If no, explain in Remarks.) _ NWI classification: Local relief (concave, convex, none): Yes If yes, optional Wetland Site ID: J Staturation Present? Yes No Depth (Inches): Wettand Hydrols (Inductes reptilary fringe) Describe Recorded Data (stream gauge, monitoring weit, aerial photos, previous inspections), if available: signs of wetland Is the Sampled Area within a Wetland? Section, Township, Range: __ Are climatic / hydrologic conditions on the site typical for this time of year? Yes \sum No _ by Wetland 288 gity/county. significantly disturbed? _ naturally problematic? Long: Depth (inches): Depth (inches): < XX 2 2 2 Primary Indicators (minimum of one is required; check all that apply) 206 Wetland Hydrology Present? Yes No. Remarks: (Explain alternative procedures here or in a separ Yes_____1 Yes No [---- or Hydrology _, or Hydrology _ ž Sparsely Vegetated Concave Surface (B8) Inundation Visible on Aerial Imagery (B7) North Party چ' Upland. Landform (hillslope, terrace, etc.); Hydrophytic Vegetation Present? Wettand Hydrology Indicators: Ħ Are Vegetation _____ Soil ___ , Soil Sediment Deposits (B2) Project/Site: Oro VP Surface Water (A1) High Water Table (A2) Agal Mat or Crust (B4) Surface Water Present? Ş Water Marks (B1) Drift Deposits (B3) Iron Deposits (B5) Water Table Present? No N Hydric Soil Present? Soil Map Unit Name: Saturation (A3) Applicant/Owner. HYDROLOGY Are Vegetation investigator(s): _ Field Obser Slope (%): _____ Remarks:

33,3% (MB) Woody vines – All woody vines greater than 3.28 ft in height. 0 Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Ô ₹ ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) N Problematic Hydrophytic Vegetation¹ (Explain) X Multiply by: C Rapid Test for Hydrophytic Vegetation Sampling Point: ę x2=__ ×5= ×1=_ Hydrophytic Vegetation Indicators: ×3≡ × 4 = ₹ Definitions of Vegetation Strata: Prevalence Index = B/A = Percent of Dominant Species That Are OBL, FACW, or FAC: Number of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Dominance Test worksheet: Dominance Test is >50% ____ Prevalence Index is \$3.01 Total Number of Dominant Species Across All Strata: Yes 臠. Total % Cover of Column Totals: FACW species FACU species Hydrophytic Vegetation Present? OBL species FAC species UPL species FACW ひっな Indicator Status アオムじ EAC EAC FACU NL Facu 60 = Total Cover = Total Cover = Total Cover Dominant I Species? \geq 7 Absolute 3. Cover 2. O 2. O 0 0 0 Remarks: (Include photo numbers here or on a separate sheet) VEGETATION – Use scientific names of plants. a randito lia \tilde{r} FraxInus americana vercus rubra olatin CUM P May 20 ovata б М Sapling/Shrub Stratum (Plot size: Woody Vine Stratum (Plot size: Acer rabrum 5050 EVONYMUS Tree Stratum (Plot size: _____ Herb Stratum (Plot size: 1. Carra 202 400 054 <u>5</u> ë N ທ່ ö N

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Sampling Point: 2	rains. *Location:. PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solis?: 2 cm Muck (Ara) (LRR K, L R)	
SOIL Samp Solution: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth function $\frac{1}{100 + \sqrt{2}} \frac{1}{\sqrt{2}} \frac{1}{$	Type: C=Concentration. D=Depletion. RIM=Reduced Matrix, CS=Covereed or Cented Sand Grains. Type: C=Concentration. D=Depletion. RIM=Reduced Matrix, CS=Covereed or Cented Sand Grains. Hydric Soil Indicators: Polyavalue Below Surface (Ss) (LRR R, L) Hydric Soil Indicators: Polyavalue Below Surface (Ss) (LRR R, L) Hydric Soil Indicators: Polyavalue Below Surface (Ss) (LRR R, L) Hydric Soil Indicators: Polyavalue Below Surface (Ss) (LRR R, L) Hydric Soil Indicators: Polyavalue Below Surface (Ss) (LRR K, L) Hydroconstruction: D=Depleted Dark Surface (TS) Hydroconstruction: Depleted Dark Surface (TS) Hydroconstruction: Depleted Dark Surface (TS) Minicid Dark Surface (TS) Depleted Dark Surface (TS) Minicid Dark Surface (Sr) (LRR K, L) Depleted Dark Surface (TS) Minicid Dark Surface (Sr) Depleted Dark Surface (TS) Minicid Dark Surface (Sr) Depleted Dark Surface (TS) Minicid Dark Surface (Sr) Depleted Dark Surface (TS) Sandy Rector (Ss) Sandy Rector (Ss) Sandy Rector (Ss) Depleted Dark Surface (TS) Sandy Rector (Ss) Depleted Dark Surface (TS) Sandy Rector (Ss) Dark Surface (Sr) Sandy Rector (Ss) Dark Surface (Sr) Dark Surface (Sr) Dark Surface (Sr) Dark Surfac	

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Sampling Point	Dominance Test worksheet Number of Dominant Species That Are OBL, FACW, or FAC: (A)	Total Number of Dominant Species Across All Strata: (B)	That Are OBL, FACW, or FAC:	Prevalence Index worksheet: Total % Cover of: Multiply by:	x 1 x 1 x 1 x 1 x 1 x 1 x 1 x 1 x 1 x 1	FAC species x 3=	ls: nce Index = B/A	Hydrophytic Vegetation Indicators: K Rapid Test for Hydrophytic Vegetation	➤ Dominance Test is >50% — Prevalence Index is 53.0 ¹	1	hnd be p	- Definitions of Vegetation Strata:	 Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 	 Sapiing/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tali. 	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	Woody vines – All woody vines greater than 3.28 ft in height.		- Hydrophytic Vegetation Present? Yes Xo		Northcentral and Northeast Region – Interim Version
VEGETATION – Use scientific names of plants.	Tree Stratum (Plot size: 30 /) Absolute Dominant Indicator % Cover Species ⁷ Status			9	Sapling/Shrub Stratum (Plot size: / 5 /)= Total Cover				T I = Total Cover	1. Colveens structure 80 108L	Rosa multiclona 5	s	6. 7.		10	32 30^{12} 100 = Total Cover	ody Vine Stratum (Plot size:	3	Remarks: (Include photo numbers here or on a separate sheet.)	US Army Corps of Engineers
entral and Northeast Region	State: Of Sampling Date: 10 - 25 - 4 C	1 .	Datum: NWM dassification:	(if no, explain in Remarks.) 'Normal Circumstances' present? Yes No	eeded, explain any answers in Remarks.) locations, transects, important features, etc.	N	Wetland Sile ID: Wetland 7			Secondary Indicators (minimum of two required)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) 	Dry-Season Water Table (C2) Craviteh Burrwes (C8)	ts (C3)	(D6) Geomorphic Position (D2) Shallow Aquitard (D3)	— Microtoographic Relief (D4) FAC-Neutral Test (D5)		etland hydrology Present? Yes <u>/ No</u> s), if available:	a.ce		Northcentral and Northeast Region – Interim Version

 Auriace vater (A1)
 Auriace vater (A2)
 Auriac Shared Leaves (B3)
 Yidy Water Table (A2)
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 Saturation (A2)
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 is the Sampled within a Wetlan WETLAND DETERMINATION DATA FORM - Northce — Section, Township, Ra Ŷ Åre (If ne SUMMARY OF FINDINGS - Attach site map showing sampling point I Saturation Present? Yes X_ No __ Depth (Inches); __ (_ /_ We (Includee appliany fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photes, previous inspections ナシッシ Local relief If yes, optional Yes No Depth (inchres): Yes No Depth (inchres): Yes No Depth (inchres): — City/County: ____ Are climatic /hydrologic conditions on the site typical for this time of year? Yes ________Are Vegetation $\underline{N}_{\rm Soli}$ Soli $\underline{N}_{\rm Sol}$ or Hydrology $\underline{N}_{\rm Solificantly disturbed?}$ Are Vegetation $\underline{N}_{\rm Soli}$ Soli $\underline{N}_{\rm Soli}$ or Hydrology $\underline{N}_{\rm Solificantly problematic?}$ - Long: -Hydric Soil Present? Yes No No Vetand Hydrology Present? Yes No No Remarks: (Explain alternative procedures here or in a separate report.) Kes Ko Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Projectistic: Graup 3 Line 2880 f Landform (hillslope, terrace, etc.): [______ i // 5 / 0 0 2 Applicant/Owner: Do 2011 hi on Investigator(s): M, Li p 12 K sotirate d Hydrophytic Vegetation Present? La La Surface Water Present? Water Table Present? Soil Map Unit Name: **A**THO Ċ HYDROLOGY Remarks: Slope (%): ____

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Sampling Point.	alins. ¹ -location: PL=Pure Lining, M=Matrix. Indicators for Problematic Hydric Soils ² : an Muck (A10) (LRR K, L, RR 1, R) Casat Phaniar Redox (A16) (LRR K, L, R) Casat Phaniar Redox (A16) (LRR K, L, R) Dark Surface (S3) (LRR K, L) Dark Surface (S3) (LRR K, L) Thin Dark Surface (S3) (LRR K, L) Thin Dark Surface (S3) (LRR K, L) Con-Manganese Masses (F72) (LRK K, L) Hedmort Floodplain Solis (F12) (MLRA 1495) Mess Solis (F76) (MLRA 1444, 145, 1495) Red Parent Masrial (F72) Very Shallow Dark Surface (F12) Cuter (Explain in Remarks) of problematic.	Hydric Soil Present? Yes X No
Collection Control of the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix $\frac{Matrix}{10} = \frac{Matrix}{100} \frac{Matrix}{10} = \frac{Matrix}{100} \frac{Matrix}{100} = \frac{Matrix}{100} \frac{Matrix}{100} = \frac{Matrix}{100$	¹ Typer. CarConteentration. D=Depletion. Ryl=Reduced thattix, CS=Covered or Coated Sand Gains. ² Loc Mydric Soil Indicators: Indicators: ² Loc Mytric Soil Indicators: Polynalue Below Surface (S8) (LRR R, CS = Covered or Coated Sand Gains. ² Loc Miste Epiedon (A2) Polynalue Below Surface (S8) (LRR R, CS = Covered or Coated Sand Gains. ² Loc Miste Epiedon (A2) Mister State (S8) (LRR R, Mister (S2) (LRR R, L) ² Coan Mister (S4) Black Histic (A3) Thin Dark Surface (S4) (LRR K, L) ² Dark Si Depleted Below Dark Surface (S1) Reactor Sandor (S2) ² Dark Si Depleted Below Dark Surface (S1) Reactor Sandor (S2) ² Dark Si Depleted Below Dark Surface (S1) Reactor Dark Surface (F5) ² Dark Si Depleted Below Dark Surface (F7) Depleted Dark Surface (F7) ² Dark Si Sandy Muccy Mineral (S1) Depleted Dark Surface (F7) ² Dark Si Sandy Muccy Mineral (S1) Depleted Dark Surface (F7) ² Dark Si Sandy Muccy Mineral (S1) Depleted Dark Surface (F7) ² Dark Si Sandy Muccy Mineral (S1) Depleted Dark Surface (F7) ² Dark Si Sandy Muccy Mineral (S1) Depleted Dark Surface (F7) ² Dark Si <tr< td=""><td></td></tr<>	
SOIL Profile Description: (Describe to the determination of the determ	¹ Type: C=Concentration, D=Depletion, RM=1 Hydric Soll Indicators: Hydric Soll Indicators: Histo Elipedon (A2) Black Histo (A3) Straffied Layers (A5) Straffied Elevol Mark (A4) Sandy Redox (B5) Sandy Redox (B5) Sandy Redox (B5) Sandy Redox (B5) Sandy Rudsy Mineral (S1) Dark Sufface (A12) Sandy Rudsy Mineral (S1) Sandy Rudsy Mineral (S1) Dark Sufface (A12) Sandy Rudsy Mineral (S1) Dark Sufface (A12)	Rastrictive Layer (if observed): Type:

LSOD Malaris Nowed ROW orry Notes

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VEGETATION – Use scientific names of plants.				Sampling Point
Tees Stratum (Plotsber, 30') 1. Arch rubrown 2. Prunus seratina 3. Quercus rubra 4.	Absolute % Cover 200 200 200 200 200 200 200 20	Species	Indicator Status FAC FACU	Dominance Test worksheet: Mumber of Dominant Species Number of Dominant Species (N) Total Number of Dominant (N) Species Across All Strata: (B) Species 37, 57,6 (AB) That Are OBL, FACW, or FAC: (A)
6. 7. 5. SaplingStrub Stratum (Plot eize: 15) 1. Lin dera Denzoina 2. Cluercus rubra 4. Lraxis rus anoricana 5. Kosa unu 1476/1500	12 0104M-		er FACW FACW FACW	Prevalence index worksheet: Total % Cover of: OBL species FACU species ACU species ACU species NA =(A) UPL species Column Totals: Column Totals: Prevalence Index = B/A =(B)
r. Hebb Syratum (Plotsize: 5) 1. KOS a multification 2. Sam bocu s nigra	0 600		FACU FACU	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is 50% Provence intext is 5.0% Merphological Alaptations' (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation' (Explain) Problematic Hydrophytic vegetation' the present, unless disturbed or problematic.
6. 6. 8. 9. 11. 11.		= T otal Cover		Definitions of Vegetation Structa: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapting/strunb – Woody plants less than 3 in. DBH and greater than 3.2 M (1 m) kall theb – All herbaceous (non-woody plants, regardless of size, and woody plants less than 3.2 M tain height.
Whody Vine Stratum (Plot size: 20) 1. Vi th S riperia 3.		= Total Cover	ž.	Hydrophytic Vegetation Present? Yes No
Remarks: (Include photo numbers here or on a separate sheet.) Us Army Corps of Engineers	sheet.)			Northcental and Northcast Region – Interim Version

State DH Sampling Date: 10,25,12 SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Northcentral and Northeast Region - Interim Version Secondary Indicators (minimum of two required) Are "Normal Circumstances" present? Yes X No____(If needed, explain any answers in Remarks.) ln ×| * Sampling Point Surrow ding Wetland Х hydrology WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region Wetland Hydrology Present? Yes Are climatic. / hydrologic conditions on the site typical for this time of year? Yes K No (11 no. explain in Remarks). Are Vegetation W Soil W or Hydrology W significantly disturbed? Are "Normal Circumstances" present? Y Are Vegetation Soil W or Hydrology M naturally problematic? (If needed, explain any answers in Remar ۶ Datum: State: 04 s. Section, Township, Range: \sqrt{a} CKSO Λ ____ NM classification: Local relief (concave, convex, none): Yes If yes, optional Wetland Site ID: Saturation Present? Yes _____ No ____ Depth (Inches); ______ Includes capillary fringe) (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Is the Sampled Area within a Wetland? wetland Long: Yes No Depth (Inches): Yes No Depth (Inches): Yes No S Depth (Inches): Primary Indicators (minimum of one is required; check all that apply) signs of 5000 Landform (hillstope, terrace, etc.): Applicant/Owner. Dominicon Sparsely Vegetated Concave Surface (B8) Field Observations: Inundation Visible on Aerial Imagery (B7) Project Site: G OVP 3 Wetland Hydrology Indicators: ן פֿן ו P words Sediment Deposits (B2)
 Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Water (A1)
 High Water Table (A2) US Army Corps of Engineers ____ Saturation (A3) ____ Water Marks (B1) Surface Water Present? Water Table Present? Soli Map Unit Name: _ Лo HYDROLOGY Investigator(s): ____ Slope (%): Remarks:

Sampling Point	ratirs. ² Location: DisPone Linine M±Mentrix		 Indicators for Problematic Pydric Salis²; 2 cm Muck (A10) (LRR K, L, MLRA 149E) 2 cm Muck (A10) (LRR K, L, R) Coast Phaie Redox (A16) (LRR K, L, R) Dark Surface (S3) (LRR K, L, R) Polyvalue Belen Surface (S3) (LRR K, L, R) Provide Belen Surface (S3) (LRR K, L) 1 mo Lark Surface (S3) (LRR K, L) Provide Belen Surface (S3) (LRR K, L) Predmont Floodplain Solis (F19) (MLRA 149B) Medi Spotic (T3) (MLRA 1444, 145, 149B) Medi Spotic (T5) (MLRA 1444, 145, 149B) Wery Shallow Dark Surface (TF12) Uhry (Explain in Remarks) Other (Explain in Remarks) 	d or problematic.	Hydric Soil Present? Yes Xo	
Coll Portile Description: (Descripe to the depth needed to document the indicator or confirm the absence of indicators.) Depth $\frac{1}{(notes)}$ $\frac{1}{color(moist)} \frac{1}{s_n}$ $\frac{1}{color(moist)} \frac{1}{s_n}$ $\frac{1}{Topel}$ $\frac{1}{Topel}$ $\frac{1}{Loc^2}$ $\frac{1}{loc_m}$ $\frac{1}{loc_m}$ $\frac{1}{rot} - 20$ $\frac{1}{lorr} R \frac{3}{s_n^2} \frac{3}{10rr} R \frac{4}{s_n^2} \frac{5}{10rr} \frac{1}{rot} \frac{1}{loc_m}$ $\frac{1}{loc_m}$	Type: C-Contentration. D=Depletion. RM=Freduced Amtrix. CS=Content dama d Saints.	=Reduced Matrix, CS=Covered or Coated Sand G	Polynalue Below Surface (S9) (LRR R, MLRA 143B) — Tim Dark Surface (S9) (LRR K, LA Learny Muccy Mineral (F1) (LRR K, L) — Learny Gleyed Matrix (F2) — Depieted Matrix (F2) — Depieted Matrix (F2) — Depieted Dark Surface (F7) — Redox Depressions (F5)	³ Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.		
SOIL Profile Description: (Describe to the det Deeth Instance) (Description: $\frac{1}{100}$ $\frac{1}{10} - \frac{1}{20}$ $\frac{1}{10} \sqrt{\frac{1}{5}} \sqrt{\frac{1}{2}}$ $\frac{1}{100}$	Type: C=Concentration, EV	Type: C=Concentration, D=Depletion, RN Hwdrir Soil Indicatore:	hydre Soli Indications: Histos (h1) Histos Epipeden (A2) Black Histo (A3) Black Histo (A3) Stratified Layers (A5) Cripted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Kedox (S5) Dark Surface (S7) (LR.R, MLRA 1498)	³ Indicators of hydrophytic vegetation and w	restrictive Layer (in observed): Type: Depth (inches):	Rentatis:

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Sampling Point:	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	$\omega _{c}^{\delta}$		Total % Cover of: Mulliply by: OBL species x1= FACW species x2= FAC species x3= IPID species x4=	ls:	111 3131-1	be present, unless disturbed or problematic. Definitions of Vegetation Strata:	Tree – Woody plants 3 in. (7,6 cm) or more in diameter at breast height (DBH), regardless of height. Saoling/shrub – Woody plants less than 3 in. DBH	and greater than 3.28 ft (1 m) tail. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tail.	Woody vines – All woody vines greater than 3.28 ft in height.	10	Hydrophytic Vegetation Present? Yes		
	Absolute Dominant Indicator % Cover Species? Status		And the second se	= Total Cover		$\frac{5}{3} = Total Cover$				100 = Total Cover	12 12	= Total Cover	heet.)	
VEGETATION – Use scientific names of plants.	1 1		5- 6-	2 2001 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1		Heter Stratum (Plot isse: 5/) 1. Phalari Sarum Sinacea 2. Cin na ar undinana	ь́	6. 7. 8.	9. 10. 11.		1 VITIS MIDENTIA		Remarks: (Include photo numbers here or on a separate sheet.)	

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region ^{TojedSite:} <u>Crove 3, Line 2 888</u> chylocurty: <u>To CKSON two</u> State State: <u>De hinis</u> Sampling E	ast Region ゴインの Sampling Date: <u>10・25・1</u> 2 バー Sampling Point <u>ラ</u>
、 <u>Liptak</u> Section, Township, Range: <u> </u>	Datum
Soil Map Unit Name:	fication:
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features,	ts, important features, etc.
Hydrophytic Vegetation Present? Yes X No by the Sampled Area Yes X No by thin a Wetland? Yes X Hydric Soil Present? Yes X No by Within a Wetland? Yes X No by thin a Wetland Site ID: WAS Present: Yes A No by II yes, optional Wetland Site ID: WAS Present: (Explain a themative in a separate report).	K eta v v
FEM/SS wetland formed by b culvert. PEM at sample plo-	berm +
нуркогосу	
Wettand Hydrology Indicators: Primary Indicators (minimum of one is required: check all that anoly) Surface Sail Cracker (RB)	Secondary Indicators (minimum of two required) Surface Soil Cracks (R6)
Leaves (B9) K (B13) – –	Drainage Patterns (B10) Moss Trim Lines (B16) Dry Scorner Wither (Cray
Keytorgen Suffe Olor Condized Rhizospheres on Living Roots (C3)	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Dresence of Reduced Iron (C4) Again at a Crust (B4) Levent (B4) Levent (B4) Inh Muck Surface (C7) Station Adjurad (D3) Control Deposits (B3) Dration Adjurad (D3)	Bunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
e on Aerial Imagery (B7) Other (Explain in Remarks) ted Concave Surface (B8)	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Vest No Depth (inches): Or 5 / 1 / 2 / 1 / 2 / 1 / 2 / 1 / 2 / 2 / 1 / 2 / 2	tent? Yes 📈 No
mouces seminary inner). Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	
US Army Corps of Engineers	Northcentral and Northeast Region – Interim Version

Sampling Point: 5 Texture remarks a factors a factor a factor	Inin. ¹ Contion: PL=Pore Lining, M=Matrix, Indicators for Problematic Bydric Soli2 ⁻ 2 cm Muck (A10) (LRR K, L, MLRA 149B) 1 - 5 cm Muck Patt or Patt or Patt (S3) (LRR K, L, R) 1 - 5 cm Muck Patt or Patt or Patt (S1) (LRR K, L, R) 1 - 5 cm Muck Patt or Patt or Patt (S1) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) (LRR K, L) 1 - 10 mb anginese Masses (FT2) 1 - 10 mb anginese Masses (FT2) 1 - 10 mb anginese Masses 1 - 10 mb anginese 1 - 10 mb anginese 1 - 10 mb anginese 1 - 10 mb angine	
Police Description: (Describe to the depth needed to document the indicators) and the matrix and the depth needed to document the indicators) (Defter) (Def	¹ Type: C=Concentration. D=Depletion, Rule=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Lost ¹ Type: C=Concentration. D=Depletion, Rule=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Lost Histosol (A1) Polynalue Below Surface (S8) (LRR R, ILZA 149B) ² Coast Polynalue Below Surface (S8) (LRR R, ILZA 149B) ² Coast Polynalue Below Surface (S8) (LRR R, ILZA 149B) ² Coast Polynalue Below Surface (S8) (LRR R, ILZA 149B) ² Coast Polynalue Below Surface (S8) (LRR R, ILZA 149B) ² Coast Polynalue Below Surface (S1) (LRR K, IJ) ² Coast Polynalue Below Surface (S1) (LRR K, IJ) ² Coast Polynalue Below Surface (S1) ¹ Hydrogen Sulface (Lyver (S1) Loamy Mucy Mineral (F2) ² Coast Polynalue Below Surface (F2) ² Coast Polynalue Below Surface (F2) ² Coast Polynalue Below Surface (F3) ¹ Hydrogen Sulface (Lyver (S2) Loamy Mucy Mineral (F2) ¹ Coast Polynalue Below Surface (F7) ² Coast Polynalue Surface (F7) ² Coast Polynalue Below Surface (F7) ² Coast Polynalue Below Surface (F7) ² Coast Polynalue Surface (F7) ² Coast Polynalue Below Surface (F7)	
SOIL Profile Description: (Describe to the de neutron) $ \begin{array}{c} \text{Postin} \\ \text{(Interes)} \\ \hline \begin{array}{c} \text{Color (Interes)} \\ \hline \end{array} \end{array} \end{array} \end{array} $	1.17per. C=Concentration, D=Depletion, RM=1 Hydric Soil Indicators: Hydrophydic Vagetation and well Black Histo (A) Sandy March (Mineral (Si) Bast Surface (Sr) (LRR, R, MLRA 1495) Andrators of hydrophydic vagetation and well Restrictive Layer (fr observed): Type: Depth (Inches): Depth (Inches):	

Northcentral and Northeast Region – Interim Version

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US Army Carps of Engineers

Appendix D:

Ohio Rapid Assessment Method for

Wetlands v. 5.0 Rating Forms

by Phalaris arundinaced 22ac of right-of way, < Pleasant impeunded Nimisila Creek. right-of way N 3A 14 围 50 -ac wettand Category: Resident Wetley Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. Wetland PEM/SS PEM/S. Agricutte 2 1 1 PEM/SS outside Residential Base Gas, Group 3, Line 2888 Approximate! dominate d alons imp Cleared f Wetland Size (acres, hectares): Comments, Narrative Discussic mod Final score : Name of Wetland: net puil in N 0# 44224 Z < .)(landmarks, distances, roads, etc. SUN # 17 mliptak@ EnviroScience Inc. com PEN/SS Lationg or UTM Coordinate 40, 904 925°N, 81, 488167°W North Canton cotton 05040001 str m Mit Pleasur <u>Stark</u> Jacksen SSURGO Background Information 2012 Charle 3<u>1/2</u> North (3 Ч Ч texer. Rd, Rd, 688.01 Li pta ヤ臣え strausser Wetland Vctober Darrow jap, address, north arrow, Affiliation: EnviroScience, Michael (330)naterity BA National Wetland Inventory Map 20 Location of Wetland: include 3781 Name of Wetland: /egetation Communit(ies): Ohio Wetland Inventory Map Delineation report/map section and Subsection iydrologic Unit Code JSGS Quad Name hone Number: e-mail address: HGM Class(es): Soil Survey Address: ownship Site Visit County Name: Date:

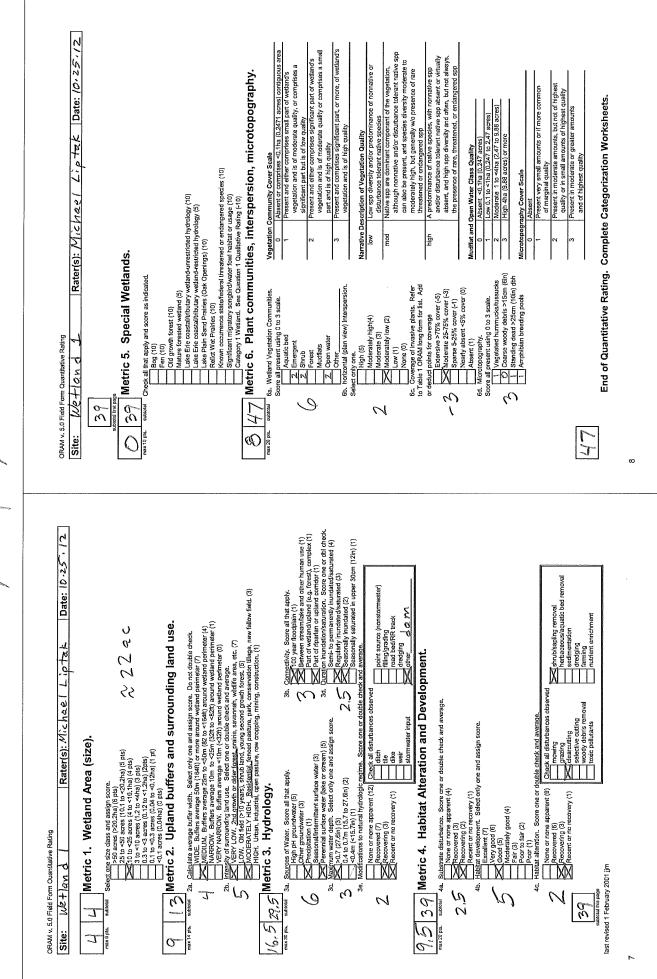
Narrative Rating	INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on finormation obtained from the site visit or the literature <i>and</i> 'by submitting a Data Services Repeats to the Disconcenter of Neuron Josensee and Disconcenter and Disconcen	Fourthan Square Court, Building 7–1. Opimbus, Dho 42224, E14.285 6435 (hono), E14.285-3056 (fax), Hurtz, feweral square Court, Building 7–1. Opimbus, Dho 42224, E14.285 6435 (hono), E14.285-3056 (fax), Hurtz, feweral state and an anothing questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habita" is legally defined in the Endangenet Species Area and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3H endquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.	# Question Circle cre	· · · ·	had ortical habitat designated (50 CFK), 53(a) and the piping plover Go to Question 2	2 Threatened or Endangered Species. Is the welfand Anown to contain VES NO an Individual or concumented occurrences of relatend for state-listed threatened or endangered fand or animal socies?	3 wetland. Go to Ouestion 3	3 Documented High Quality Wotland. Is the welland on record in YES Notward Heritage Database as a high quality welland? Wetland is a Category Go to Question 4 3 wetland is a Category Go to Question 4 3 wetland	Ga to Question 4	4 Significant Breeding or Concentration Area. Does the welland YES NO contain documented regionally significant breeding or nonbreeding welland, neotropical songbird, or shorebird concentration areas? Welland is a Category Go to Question 5	5 Category 1 Wordiands. Is the weltand less than 0.5 hockares (1 acre) YES NO 1 and support and support and support NO 1 bit state and support and support NO 1 bit state and support and support NO 1 bit state bit state bit state Another support 2 an acids prod reseted on support acids that his fills or 1 Another support	Construction C	cover of invasive species (see Table 1) is <25%?	Image: Tens. Is the wetland a carbon accumulating (peat, muck) wetland that YES NO 1 started during model of the year, primarily by a discharge of the first model with a model with a model with a wetlaw this a cummental ph (5.5.40) and with one werne plant species listed in Table 1 and the cover of a wetland is a category in the cover of a methan the model of the cover of a wetland NO	a Old IC constribution that and is the verticed weiland and is the vertice species lated by. Until mithed to, the following characteristics: Oct to Question Ba No a "Old Corwth Forest." Is the weiland a forested weiland and is the vertice of the vertice
	Scoring Boundary Worksheet	INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being mated. In many instances this taken the scoring boundary of an apolated entital marsh located in the with the "justification boundaries." For example, the scoring boundary of an apolated entital marsh located in the middle of a farm field will likely be the same stath vetadina (s) jurisditicational boundaries. In other instances, in ovever, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large configous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic segme of the wetland is the main criterion that should be used. Boundaries between conguous or conceted wetlands should be used. Boundaries through the wetland changes significandy. Areas with a high degree of hydrologic interaction should westered as a single wetland's indication. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining wetland is, use the guidelines in the ORAM.	Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a partbouck on the landscape, wetlands divided by	artificial boundarles like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Chio EPA, Division of Surface Water, 401,Métlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.	# Stens in monerty establishing scoring houndaries done? not available	tep 1 Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	Step 2 Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-	mouse or carrier generations cause or perms or oxes, points where the water velocity changes or place and the confluence or fives, or other factors that may restrict hydrologic interaction between the wedlands or parts of a single wetland.		Step 3 Delineate the boundary of the welland to be rated such that all areas of interest that are condiguous to and within the areas where the hydrology does not change significantly. It, a reases that and a high degree of hydrologic interaction are included within the scoring boundary.	Step 4 Determine if artificial boundaries, such as property lines, state lines, nods, rainost emanaryona, stc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	Step 5 In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	Step 6 Consult ORAM Manual Section 5.0 for how to establish scoring	doundenses what noting a partyment on the landscape, divided by antificial bonnance, contiguous to streams, lakes or fivers, or for dual classifications.	End of Scoring Boundary Determination. Begin Narrative Rating on next page.

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ecies bog species 0ak Opening species wet prair secies bog species 0ak Opening species wet prair are sur, guters Carla palleeris Caracoryptologis Calamg prea Caracoryptic Caracoryptic Cala	ar Curack anna Curack serials Curack expansion of Currer serials Curack expansion Currer starten Curack offensen Descharter starten Curack offense offensen Einopatons rendelinan Commercipations Curandersis Einopatons rendelinan Einopaton virgibilans Einopatons ereiten Einopatons	ulhoes Userisiumen protosum Vactisiumen systemeses Wacchardia trigaden Xyris dillormis am	End of Narrative Rating. Begin Quantitative Rating on next page.				
Table 1. Chara Invasive/excitination Lythrum suitation Marrier endocrean	Phalan survelin Phalants auxin Phangutas auxin Phaneougeton can Rhanneo fanglu Ijpan agasetol Ijpan agaseto					c	ß
S land should be lived for possible gery 3 status.	\lor	20 20 20 20 20 20 20 20 20 20 20 20 20 2	NO Co ta Or Co ta Or	io Question 10 Mand is a Category Go to Question 11 etand. to Question 11	S No tand should be Complete luted for possible Quantitative agory 3 status Rating mplete Quantitative		
Mature forested wedands. Is the wedand a forested wedand with 50% or more of the cover of upper forest campy consisting of decidoous trees with large diameters at threast height (dbh), generally diameters greater than 45cm (17.7/n) dbh?	Lake Erie coastal and tributary wetlands. Is the wetland located at an eleventon less than a first set on the USSS may adjacent to this development of the elevention. To eleve the value of a tributary to Lake Erie that is accessible to fish? Does the wetland's hypotrology result from massures dargined to prevent ensition and the loss of acuello plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Are Lake fier waret vest the watarist per primery hydrogical influence. I.e. the watard is hydrologically unreachtard for lakeward or upland border alterations), or the vetland can be charatedricad as an border alterations), or the vetland can be charatedricad as an include sandbar doposition watards, sistuarine widangs, fiver moutor sandbar doposition watards, sistuarine wedlangs, fiver mouto a sandbar doposition watards, sistuarine wedlangs, fiver moutor sandbar doposition watards, sistuarine wedlangs, fiver moutor sandbar doposition watards, sistuarine wedlangs, fiver moutor sandbar doposition moutards, sistuarine wedlangs, fiver wetlands, or threes dominated by submersed auguitor border species wat also be present no- matice species can als	Does the welland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	Late Plain Sand Prairies (Oak Openings) is the welland located in Lucas: (Bruch, Henry, Nood Counters and can the welland be characterized by the following description: the welland has a sandy substrate of whit herspector organic matter, a water table often within several inches of the surface, and often with a commence of the grammenus vegetation tracted in Table (Nood) profects may also be present). The Ohlo Degartment of Natural Resources Division of Natural Versa and Prevens can provide assistance in confirming this to not over a welland and its outlike.	Relict Wer Prairies. Is the wetland a relict wet prairie community dominated by some origin of the species in Table 1. Extensive prairies were formerly located in the Darky Plains (Madson and Union Counties), Sancusky Plains (Wyanouc), Cawford, and Marion Counties), Sancusky Plains (Wyanouc), Cawford, and Marion and portons of western Ohio Gay. Erie, Humon, Lucas, Wood Counties), and portons of western Ohio Gay. Erie, Humon, Lucas, Wood Counties), Mongomery, Van Wert & G.,		
	YES NO Vetands No Vetands No Vetands Systems Vetands Systems Category 3 status Systems Go to Question 9a Systems Category 3 status Systems Go to Question 9a Systems Invasive Systems Consciones Systems	Mature forested welland, is the welland a forested welland with S0% or more of the cover of upper forest amopy consisting of detections trees with large damaters a threat hight (dbh), generally welland for possible detections the welland for possible detections the welland for the fore cover of upper forest amopy consisting of the fore cover of upper forest amopy consisting of detections the welland for the fore cover of upper forest amopy consisting of the fore cover of upper forest amopy consisting of detections the welland for the welland for the fore cover of upper forest amopy consisting of detections the welland for the welland for the fore cover and evention of all phonetyces. Not for species Dec of species <thdec of="" species<="" th=""> Dec of species <thdec of="" species<="" th=""> Dec of species De</thdec></thdec>	Marter forested weitands. Is the weitand strined with solution recer due or duports of strandy consisting of declorations are off upon for of upon for an opponent and event in the strand strands. Is the weitand is the decloration recer of the operation of the decloration received and the decloration recercing and the decloration received and recercing and decloration rec	Mare forestar valuanti, 5. Provintina 3 forestar valuanti, 5. Provintina 4 forestar valuanti, 5. Provintentina 4 forestar valuanti, 5. Provintina 4 forestar valuanti, 5	Mark for each of waters 1. The waters 1 or each of the control of		

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Base Gas, Group 3, Line 2888

Is quantitative raing score less than the Category 2 scoring trensblot (accurding gray, zono) if yes, restaulate sho category of the weltand using the narrably criteria in OAC assessments to detormine if the weltand has been over-categorized by the ORAM. A substant state of a single to 1 narrable criteria in OAC Rule 3745-r54(c) and 2) the quantitative rating score. If the states the treatend using the 1 narrable criteria in OAC Rule 3745-r54(c) and 2) the quantitative rating score. If the states the treatend scing the 1 narrable criteria in OAC Rule 3745-r54(c) and 2) the quantitative rating score. If the states of commond on the a category 3 welland using either of these, It should be category of the welland science of scoring threated (moding any gray zone)? If yes, is computed to ROAM. If the score of the welland is category 2, the number of the welland is the welland that functional assessments to element the welland that assessments the category. In all instances however, the narrable criteria described in OAC Rule 3745-154(c) can be used to chain category. In all instances however, the neutrol of and of a category of the welland that assessments the category of the welland that the element assessment assessments to element the that the element assessment the element of the welland that the element assessment to the welland that the element of the welland that assessment the element of the element of the A wetland may be undercategorized using this method, but said exhibit on errore substruct functions, e.g. a wetland's blotte communities may be degraded by human activities, blotte communities may be degraded by human activities, and the wetland may all durits uspaner hybriologic. In the wetland may all durits uspaner hybriologics is functions because of 18, ypo, il and scape position, size, local narrative criteria in OAC fuel p. 3745-145(C)(2) and (2) are commoting, and the under-categorization should be provided. Rater has the option of assigning the wetland to the higher of tho word adgroids or to assign a callegory based on the results of a normapid wetland assessment method, e.g. functional assessment, biological assessment, dat, and a audideration of the narrative orderia in OAC rule 3745-1-54(C). Evaluation of Categorization Result of ORAM End of Ohio Rapid Assessment Method for Wetlands. Wetland Categorization Worksheet Final Category Wetland is assigned to category as determined by the ORAM. 2 Z g g S 02 2 Wetland is categorized as a Category 3 wetland Wetland is higher of the hassigned to the categories or assigned to a sassigned to a category based on detailed the narrative the narrative YES Wetland is categorized as a Category) wetland Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form Wettand is assigned to the appropriate category based on the scoring range Wetland should be evaluated for possible Category Circle one 3 status YES YES YES Does the welland of themise which motectes OR superior hydrologic OR habitat, OR hydrologic OR habitat, OR the welland was not the welland fin the case of welland fin the case of categorized as a category 2 welland fin the case of a categorized as a categorized as a category 2 welland fin the case of superior functions) by this method? Does the quantitative score (fall within the scoring range of a Category 1, 2, or 3 weiland? Does the quantitative score fail with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands? Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 5, 7, 8a, 9d, 10 Namative Rating Nos. 1, 8b, 9b, 9e, 11 Did you answer "Yes" to any of the following questions: Choc Did you answer "Yes" to Namative Rating No. 5 Choices If yes, evaluate for category 3; may also be 1 or 2, evaluate for If yes, evaluate for category 3; may also be 1 or 2, If yes, Category 3 If yes, evaluate for Category 3; may also be 1 or 2. If yes, Category 3 If yes, evaluate for Category 3; may also be 1 or 2. Category based on score breakpoints If yes, Category 3. If yes, Category 1. If yes, Category 3. Result 16:5 Complete Wetland Categorization Worksheet. 0 circle answer or insert KER KO KO ſ YES (NO) Score YES NO VIS NO Ő YES (NO YES (NO) ĮŻ) **ORAM Summary Worksheet** <u>ع</u>از YES NO 2 Ο 00 T ŝ YES Metric 6. Plant communities, interspersion, microtopography TOTAL SCORE Metric 2. Buffers and surrounding land use
 Question 2. Threatened or Endangered

 Species

 Question 3. High Quality Natural Wetland
 Metric 5. Special Wetland Communities Question 8b. Mature Forested Wetland Cuestion 9d. Lake Erie Wetlands – Unrestricted with native plants Question 9e. Lake Erie Wetlands – Unrestricted with invasive plants Question 4. Significant bird habitat Question 9b. Lake Erie Wetlands -Restricted Question 5. Category 1 Wetlands Question 8a. Old Growth Forest Question 11. Relict Wet Prairies Question 10. Oak Openings Question 1 Critical Habitat Metric 3. Hydrology Question 7. Fens Question 6. Bogs Metric 4. Habitat Metric 1. Size Narrative Rating Quantitative Rating

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0,03570C s/000 arun dinacea NOW M IND wettand $\leftarrow 2$ 6 Grauns je K J & Mary al Category: 5 expression こちもの rehicle -N Wex land Wetland 200-2-7 8 5 5 sija 50 g Mox heavil Grow due NOW Sketch: Include north arrow, rela Wetland Size (acros, hectares): 50 0% Final score : Small ta Name of Wetland: S 2 2 0H 44224 ~Z .)(SUNAIT mliptak@ EnviroScience Inc. com 902586 N, 81,487998W North Canton -attaocation of Wetland: include map, addross, north arrow, landmarks, distances, roads, etc. Stow N' + Pleasen <u>Stark</u> Jackson 0504000 SSURGO 2012 Background Information Creek e)1/2 Rd. 142.24 North RJ, 2 Ч Ч Ч 688.01 P M S strausser LI pta letland October Darrow Affiliation: EnviroScience Nex Michael 40. 330. naterilarA Rd Vational Wetland Inventory Map 50 at/Long or UTM Coordinate Name of Wetland: Ohio Welland Inventory Map 00 Vegetation Communit(les): Section and Subsection Delineation report/map Hydrologic Unit Code ISGS Quad Name Phone Number: e-mail address: HGM Class(es): Soil Survey ownship Address: Site Visit County Name: Date:

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Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the CRAM is to identify the "scoring boundaries" of the wetland being rated. In mark instances this determination will be relatively easy and the scoring boundaries will concide with the "jurkitchonal boundaries." For example, the scoring boundaries in other variate middle of a farm field will likely be the same as that wetland 5 jurkitchonal boundaries. In other instances, however, this scoring boundary will not be as easily determined. Wetlands that are small or isolated from other sufface waters often from large conjeguous properties of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between configuous or connected wetlands the estabilished where the volume, flow, or valocity of water moving through the wetland that form a patchwork on the landscope, interaction of Boundaries between configuous or connected wetlands boundaries, use the guidelines in the ORAM Manual Section 55 In certain instances, it may be efficient to estabilish the scoring boundaries in the ORAM Manual Section 55 In certain instances, it can a patchwork on the landscape, wetlands dup artificial boundaries like property fences, noas, or railored emblements, wetlands bar are configuous with streat. These property fences, noas, or railored emblements, wetlands that are configuous with streated. These property fences, noas, or railored emblements, wetlands Section fi these are additional duptors or revers, and estuarine or costal wetland. These strations are discussed below, however, it is recommended that franc configuous or fibrilication of the appropriate scoring boundaries of a particular scoring upous with streams. Jakes or revers, and estuarine or costal wetland. These strations are discussed the scored are a for further clarification of the appropriate scoring boundaries of a particular scoring upous duptoring theoremore the scored boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	I not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reforence site, conservation site, etc.	>	
Step 2	Identify the locations where there is physical evidence that hydrology physics repidly. Such evidence inductions burlated both manal and human- induced changes including, constructions caused by forms or difes, points where the weak velocity changes rapidly at profis or fails, points where a twart inflows cocur at the confluence of thres, or other factors that may restrict hydrologic interaction between the wellands or parts of a single welland.	\rightarrow	
Step 3	Delineate the boundary of the welland to be rated such that all areas of interest that are encigatous to and which the anare where the hydrobgy does not change significantly. I.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	>	7
Step 4	Determine if artificial boundaries, such as property lines, state lines, rands, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrotopic regime changes.	>	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wellands that could be scored separately.		
Step 6	Consult ORAM Manuel Section 5.0 for how to establish scoring boundens for wellands that form a patchwork on the landsrape, divided by artificial boundaries, configuous to streams, lakes or rivers, or for dual dassifications.		$\overline{}$

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

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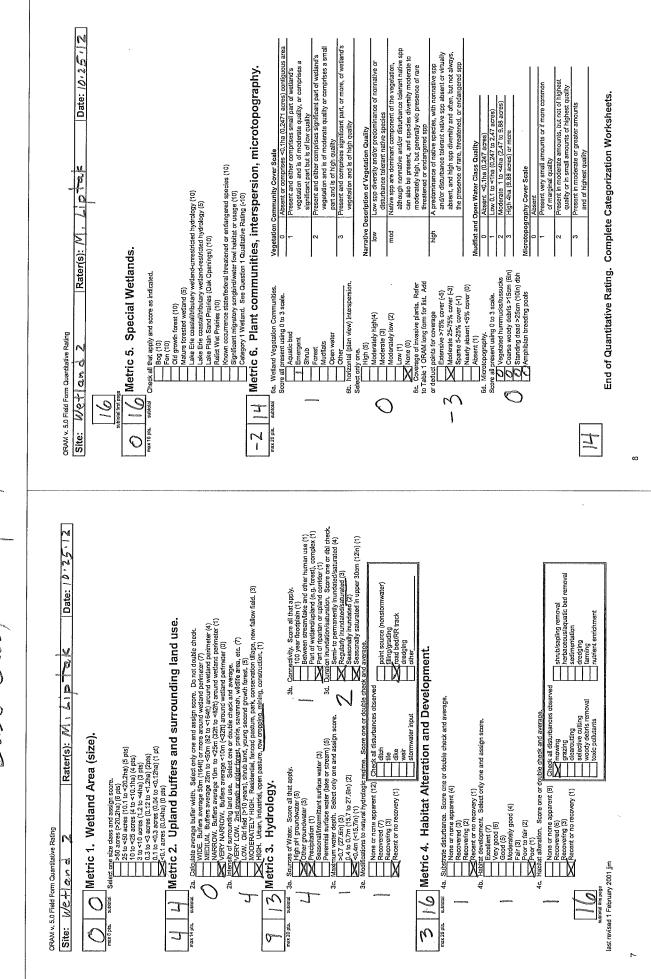
Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3and 4should be answeed based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohlo phartment of Natural Resources. Division of Natural Areas and Theserves, Natural Hinting Data Services. 1889 Fountian Square Court, Building F-1, Coluna, Chino 42224, 614-2056 6435 (phono), 614-2055 2056 (rs), http://www.dimr.state obt.us.dinan_. The remaining questions are designed to be answered primarily by the results of http://www.dimr.state obt.us.dinan_. The remaining questions are designed to be answered primarily by the results of defined in the Endangered Spiese Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an use that may require special management considerations or protection. The Rater should contact the Region 3F adaquerator or the Columbus Ecological Services Office for protection. The Rater should is listed in the appropriate Special management considerations or "Documented" means the welland is listed in the appropriate State of Ohio database.

	Question	Circle ane	$\left(\right)$
	Critical Habitat. Is the wetland in a township, section, or subsection of	YES	GN
	e > ones uscas Georgias and yor you mouth and an and designated by the U.S. Fish and Wildlife Service as "entitial halting" for any threatened or entangened plant or animal psecies?	Walland should be evaluated for possible	Go to Question 2
	therease of a balance of the found in the redericity instead entrangler by the Interestioned species which can be found in Ohio, the Indiana Bat has	Category 3 status	
	had chucal habitat designated (5U CFK 17.35(a)) and the piping plover has had childen habitat proposed (65 FR 41812 July 6, 2000).	Go to Question 2	(
	Throatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed	YES (ON
	threatened or endangered plant or animal species?	Welland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	(
	Documented High Quality Wotland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES) ON
		Welland is a Category 3 welland	Go to Question 4
		Go to Question 4	(
	Significant Breeding or Concentration Area. Does the wetland	YES	ON
	waterfow, neotopical songbird, or shorebird concertration areas?	Wetland is a Category 3 wetland	Go to Question 5
		Go to Question 5	(
	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of	YES (ON
	vegetation that is dominated (greater than eighty per cent areal cover) by Phalairs aundinated on Lyhnur asilearia, or 2) an acidic sond created or axcavatad on mined lands that has fulle or	Wetland is a Category 1 wetland	Go ta Questian 6
	no vegetation?	Go to Question 6	(
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophillic mosses.	YES	ON
	particularly Sphagnum spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the crover finvasive services (see Table 1 is <57%).	Wetland is a Category 3 welland	Go to Question 7
		Go to Question 7	(
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	YES	ON
	To solve address of the solve	Wetland is a Category 3 wetland	Go to Question 8a
- 1		Go to Question Ba	(
	"Old Growth Forest." Is the wetland a forested wetland and is the forest rharacterized by but not limited to the following characterize:	YES	(ON
	rorost una deutracu 3.9 vur nuc marto 1.4 neu nuowny draad cun isucs. overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); liftle or no evidence	Welland is a Category 3 wetland.	to Question Bb
	of human-zaused understory disturbance during the past 80 to 100 years; an al-leged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers	Go to Question 8b	

ies capillaceu	admacea Gurevizerilis Carreviologosema Cladiumiranisocolos acteristis Carreviolatis Carreviologosema Cladiumiranisocolos rerispos Diserterativa Carreviolity and Cladiumiranisocolos rerispos Disectaristis acargotista Disentedada Disectaristis acargotista Diserviciona Calatangousis seriadaras regiata Eriophorum Virginiana Quercus pulastris regiata Eriophorum Virginiana Quercus pulastris filola Centanopes sign Interpativa mercurata Dobela halta due Schedara pulastris Parasasi guaca Splanguara pulastris Riprotrangen cipilloca Varchania mercentori Varchania morpholosa	Suit writedles Moorheards vitgrid Southeards Southeards Southeards Southeards Southeards Southeards Southeards Southeards Advertised		
No Ga the Question Sa	o Question 10 9 Question 5c	Go ia Question 10 Go to Question 9e Go ta Question 10	No Ro to Question 11 No Complete Quentitative Rating	
별	Et .	tie a	vetland is a Category VeC Wetland is a Category Go to Q 3 wetland. Go to Question 11 Go to Question 11 YES NO Wetland should be Complet evaluated for possible Quantitative Camplete Quantitative Rating	
<u> </u>		Dorder allocations, or the welland can be characterized as an estuarine" welland with lake and niver influenced hydrology. These miculos sandhard deposition wallands, statume wellands, niver mouth wellands, cr-throse dominated by submersed aquatic vegetation. Does the welland have a predominance of mative species within its vergetation communities, although mon-native or disturbance tiderant native species can also be present? Dees the welland have a predominance of non-native or disturbance disturbance tiderant native species can also be present?	Lake Plain Sand Prairies (Oak Openings) is the wetland located in Lucas, Fluin, Harry, or Viceod Counties and can the wetland located in characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within substrate with interspersed organic matter, a water table often within several incises of the surface, and often with a dominance of the gramineux vegetation listed in Table 1 (woody species may labo be present). The Ohlo Dapartment of Natural Resources and Natural Avers and Preserves can provide assistance in confinning his proof wet formed and its queption and substance in confinning type of wetland and its queption. The Natural Avers and and provide assistance of the species in Table 1. Extensive prairies wet formeas! Standusky Plains (typathdc, Cawford, and Mathon Countes), Randusky Plains (typathdc, Cawford, and Mathon and portions of wetsen Ohlo (o.g. End, Huron, Lucas, Wood Countes), Montgomery, Van Wert etc.).	

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Base Gas, Group 3, Line 2888

Is quantitable rating score less than the Category 2 scoring threshold (scoring) args 2 scoring and/or threshold (scoring) if yas, real-category of the welland using the narralwo ratilera in OAC assessments to determine I the welland has been over-categorized by the ORAM Rule 3745-r54(c) and biological and/or throtonal assessments to determine I the welland has been over-categorized by the ORAM Rule 3745-r54(c) and 20 the quantitable rating score. If Rule 3745-r54(c) and 20 the quantitable rating score. If Rule 3745-r54(c) and 20 the quantitable rating score. If Rule 3745-r54(c) and 20 the quantitable rating score. If Rule 3745-r54(c) and 20 the quantitable rating score. If Rule 3745-r54(c) and 20 the quantitable rating score. If Rule 3745-r54(c) and 20 the addition of a score of threat of thread. I should be adsoprided at a 2 chalgory 3 scoring threat of thread and a ratio of nucleon and thread assessments may table be used to determine the welland using the marralion criteria in OAC and 3745-r54(c) and 4 biological and/or functional assessments to determine FOAM If the score of the welland is floated whith the scoring thread to that category. In a diminators however, the anargive or a plancial actargory. The welland tase a traditione to the actargory. In a diminators however, the anargive or a plancial actargory. In a diminators however, the anargive or a discripted in OAC Rule 3745-r54(c) can be used to diate category. In a diminators however, the anargive or a discripted in OAC Rule 3745-r54(c) can be used to diating accurate a secore. A vertaind may be undercategorized using this method, but atta exhibit one more support fundances, e.g. a wetaard's block communities may be degraded by human achives, the nuclean may all avaits repeater hybrichogic a functions because of its type, landscape position, size, local nerregional significance, etc. in this circumstance, the narrative ortebia in OAC Faule 3745-145(C)(2) and (3) are corracting, and the under-categorization should be corracting, and the under-categorization should be corracting. Rater has the option of assigning the welland to the higher of the two vestegories are to assign a calopy based on the results of a normapid welland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C). Evaluation of Categorization Result of ORAM End of Ohio Rapid Assessment Method for Wetlands. Category 3 Wetland Categorization Worksheet Final Category assigned to category as determined by the ORAM. Wetland is Ø ß g g Wetland is categorized as a Category 3 wetland Wetland is categorized as a Category 1 wetland for recategorization should be provided on Background Information Form Wetland should be evaluated for possible Category 3 status YES Wetland is assigned to the appropriate category based on the scoring range Wetland is assigned to the migher of the two categories or assigned to a category based on datallod the narrative the narrative triteria Wetland was undercategortzed by this method. A written justification Circle one YES YES YES Does the wetland otherwise bydrologic OR habital. OR hydrologic OR habital. OR the wetland was not the wetland was not attegorized as a Category 2 mediand (in the category 3 wetland (in the case of superior functions) by this method? Does the quantitative score fail with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands? Does the quantitative score fail within the scoring range of a Category 1, 2, or 3 wetland? Narrative Rating Nos. 1, 8b, 9b, 9e, 11 Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10 Did you answer "Yes" to any of the following questions: Did you answer "Yes" to Namative Rating No. 5 Choices ₽ If yes, evaluate for category 3; may also be 1 or 2. If yes, evaluate for Category 3; may also be 1 or 2. If yes, Category 3 If yes, evaluate for Category 3; may also be 1 or 2. If yes, Category 3 If yes, evaluate for Category 3; may also be 1 or 2. Category based on score breakpoints Result If yes, Category 3. If yes, Category 1. Complete Wetland Categorization Worksheet. answer or insert SCORE YES (NO YES NO YES NO circle YES (NO YES (NO YES (NO YES (NO YES NO YES (NO (Sal YES NO E) 2) 7 **ORAM Summary Worksheet** $\tau | O$ N 6 0 Q 8 YES (YES (ΥËS ŝ Metric 6. Plant communities, interspersion, microtopograbhy TOTAL SCORE Metric 2. Buffers and surrounding land use Question 3. High Quality Natural Wetland Question 2. Threatened or Endangered Species Question 8b. Mature Forested Wetland Metric 5. Special Wetland Communities Question 9d. Lake Erie Wetlands --Unrestricted with native plants Question 9e. Lake Erie Wetlands --Question 4. Significant bird habitat Question 5. Category 1 Wetlands Question Sb. Lake Erie Wetlands -Restricted Unrestricted with invasive plants Question 8a. Old Growth Forest Question 11. Relict Wet Prairies Question 10. Oak Openings Question 1 Critical Habitat Metric 3. Hydrology Question 6. Bogs Question 7. Fens Metric 4. Habitat Metric 1. Size Narrative Rating Quantitative Rating

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v 0.08162 loodplain on tside On slope Category: R0 V 4 3 Wetland S NOSEQ N cation of Category Changes: *с* М ROW Wetland Size (acres, hectares): Sketch: Include north arrow, relationship with other surface wate WH tores Uan KS reen ٤ Comments, Narrative Discussion, Justi Wetlan ds - Asrara n S L Final score : Name of Wotland: י 0 ы 44224 2 <--+ Wetlandy 30 40, 70154N, B, 48810W Location of Wetland: include map, address, north arrow, landmarks, distances, roads, otc. SUN MIT mliptak@ EnviroScience Inc. com 0# North Canton Stee moreld this 05040001 Stark Jackson SSURGO 2012 Background Information Mult Je 1020 Ka. North h RJ arrow Kd)688.01 トロク EM P Lipta Wetland strausser LatLong or UTM Coordinate W 81, 48807W ≥ Щ October Enviro Science, Michael (330)<u>Kg</u> naterilarA Vational Wetland Inventory Map 25 Ohio Welland Inventory Map 100 Name of Wetland: Vegetation Communit(ies): ection and Subsection Delineation report/map Hydrologic Unit Code 3 Phone Number: e-mali address: HGM Class(es): Soll Survey Address: Affiliation: ownship Site Visit ounty Date:

Base Gas, Group 3, Line 2888

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Rating Questions 1, 2, 3 and 4 should be answered based on	Data Territers Request to the Cho Antural Factures Request to the Cho (phone), 614 285-2036 (az), (phone), 614 285-2036 (az), e answerd primarily by the results of e answerd primarily by the results of physical or biological heatures ussential anagement considerations or manues Ecological Services Office for listed threatened or endangered species.			YES NO Wetland should be evaluated for possible Categor 3 status	o Question 2	Welland is a Category Go to Question 3 welland.	Go to Question 3 VES No. Welland is a Category Go to Question 4 Subland	Go to Question 4 NO Yestand is a Calegory Go to Question 5 3 setland C	eo us question 3 YES Wetland is a Category Go to Question 6 1 wetland	vou ourceston u YES Welland is a Category Go to Question 7 3 welland 7 Go no Nucetton 7	YES NO Wotland is a Category Go to Question 8a 3 wetland	Go to Question as Version and Version and Version and Version and Sandard, Sandard, Sandard, Go to Question ab
Narrative Rating NNSTRUCTIONS. Answer each of the following questions. Questions 1, 2			I		had critical habitat designated (50 CFR 17.95(a)) and the piping plover Go has had critical habitat proposed (65 Fr 41:11.1) up. 6, 2000). Purcentation of Evabitate proposed (65 Fr 41:11.1) up. 6, 2000).		Documented High Quality Wetland, is the weiland on record in Go YEE Natural Herlage Database as a high quality wetland? Yee 3 wetland 3 wetland? 3 wetland?	Significant Breeding or Concentration Area. Does the velland YES contain documented regionally significant breeding or nonbreeding waterfow, neotropical songbird, or shorebird concentration areas? 3 well 3 well	Category 1 Wetlands. Is the welland less than 0.5 hockares (1 acre) VES in size and hydrologically isolated and either 1) comprised of the command of command of covert han eightry per cent rated cover) Wetl by Phalons anundhacea, Lythrum salicens, or Phragmites ousterla, or 2) an acidic poind created or excavated on mined lands that has little or 2) an acidic poind created or excavated on mined lands that has little or	vettand a prest-accumulating wetland that 1) has no ver or outflows. 2) supports addophilic messes. <i>Pagrums</i> spp., 3) the acidophilic mosses have >30% ast one species from Table 1 is present, and 5) the ve species (see Table 1) is <25%?		"Old Growth Forest" is the wetland a foreasted wetland and is the Go forest characterized by, but not limited to, the following characteristics: voerstor campor trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); title or no evidence 3 we intramar-caused understory distribution cluning the past age 20 to 100 years; an al-aged structure and multilayered camopies; aggreg to 100 years; an al-aged structure and multilayered camopies; aggreg to 100 campty trees interspreted with campo years; and significant numbers of standing dead snags and downed logs?
	Inform Departs Foundar Foundar defines the site of the c protect update		#	.			m	4	m	ω	Ы	g
	OCUTING DOULING JOULING JOULING JOULINGLY WUIKSIDEGL INSTRUCTIONS. The initial step in completing the ORAMIs to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisofictional boundaries." For example, the scoring boundaries in other instances, in other instances this determined. Wetlands is jurisofictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other wetlands for scoring purposes, the bydfordingior segments on phase of vetlands that are small or isolated from other wetlands for scoring purposes, the bydforlogic regime of the wetland is the main criterion that should be used. Boundaries between configuous or connected wetlands should be used.	her moving involution the wettand changes signiticantly. <i>Areas with a high degree of infractologic interaction should</i> be <i>scored as a single wetland</i> . The ORAM in the ORAM <i>De scored as a single wetland</i> . In determining a wetland's scoring boundaries, use the guidelines in the ORAM Maruel Section 50. In reactand instances, it may be difficult to stabilish the scoring boundary for the wetland	rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by	arturical boundaries line property tences, rotads, or rativoad embankments, wetlands that are contiguous with streams, lakes, or traves, and estuarine or coastal wetlands. These situations are discussed below, howver, it is recommended that Rater contact Ohlo EPA, Division of Surface Water, 401,Metlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.	done? not applicable	<u> </u>	<u> </u>		>			End of Scoring Boundary Determination. Begin Narrative Rating on next page.

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Table 1. Characteristic plant species. Deg species Oak Opening species wet prairie species Lyturm station/socie sup Fin species bog species Carve cryptologies Carve cryptologies Lyturm spicature Carve duration and carbon constraints Carve cryptologies Calumprostic state More carry alternation Carlo platena Carve duration and carbon constraints Carve cryptologies More carry alternation Carry alternation and carbon constraints Carve constraints Carve constraints	adıneca Caractasias Caractajagarma staralis Caractasica Caractajagarma cinspas Descharthad asepites Charactajapac caryotaja carada Encodans rocealada Decedan vardalpate caryotaja adı Endoptaren virideatinatum Endoptaren virighicum Biblis Carabianyasi sipa Laraktarajan Biblis Carabianyasi sipa Laraktarajan Biblis Carabianyasi sipa Schedaraja paluentis Paterulli Endocea Schedaraja paluentis Paterulli Endocea Schedaraja paluentis Paterulli Endocea Schedaraja paluentis Paterulli Endocea Schedaraja paluentis Ramanaga Ramana atafalia Kacabian marcocarpon Ramana atafalia Kacabian marcocarpon Subit anada in Kacabian marcocarpon Subit anada in Kacabian marcocarpon	tative Rating on next page.			σ
Id be Go to Question Ba atus.	NO Ge ta Qu NO Ge ta Qu	m 34 Go to Question 10 NO Category Go to Question 9e m 10 NO	ad be possible atus an 10 Category Go to Question 11	ld be possible Complete possible Realing tatus antitative	
sted wetland with YES consisting of consistent of the wetland should be write the should be write the should be categories of the characterise of	ż ż	acted as an ighthogy. These itards, thermouth is vegetation. Species within its sturbance tolorant Sturbance tolorant 3 welland 6 oto Question 10 Communities 7 Communities 7 Community 8 Communities 7 Communities 7 Com	well currientees? Wetland should be caregory a status Caregory a status Caregory of the status Ca	arife community 1. Extensive prairies na du Unich and Marton st, Wood Countes). Caragory 3 status e, Mercer, Miami, Complete Quantitative Rating	
8b Maturo forested wetlands. Is the wetland a forested wetland with 50% more of the over d upport forest cancery consisting of deciduous trees with large dameters a breast height (abh), generally diameters greater than 45cm (17.7m) dbh?	ga Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation rest starts free to the ISOS many addacent to this of elevation. or elevation is the ISO is lake Erie Antal is accessible to fish? 9b Does in the vediant's typotology result from resustrees designed to prevent ension and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or iantward dikes or other hydrological controls? A Are Lake Erie water levels the wetland's primary hydrological influence. A Are Lake Erie water levels the wetland's primary hydrological influence.	 burder ellerations, in the weialand can be charactaized as an "estuarine" weiland with lake and river influenced hydrology. These "estuarine" weiland with lake and river influenced hydrology. These include sanchar deposition weilands, estuarinesed equitar vegetation. Does the weiland have a predominance of native species tubin la vegetation communities: although non-native or disturbance tolorant native species can also be present? Does the weiland have a predominance of non-hative or disturbance tolorant native can version and the arteriation. 	toter and name prant, spaces when its regretation cummunues requestion that a space space when its regretation compared in Lucas. Future, Harry or Wood Costrates and can he welland located in Lucas. Future, Harry invested organizations and description: the welland has a sandy substrate with invested organization and the space of the surface. Tand of then with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The OND participant (or Maura Rescues Diskton of Natural Arceas and Preserves and Prese	1. Yoe of wetland and an quelity. A wetland an elitic wet pratile community facilier Wet Pratiles. Its the wetland a relit wet pratile community dominated by some or all of the species in Table 1. Extensive pratiles were formerly identifier in the Dary Plans (Wrajado, Cawfue), and Marton Countels), Sandusky Plans (Wryando, Cawfue), and Countels), and prodors of Plans (Wrajado, Cawfue), and prodors of westem Chile (e.g., Erie, Huron, Lucas, Wood Countels), and prodors of westem Chile (e.g., Darke, Mercer, Marni, Montgomery, Van Wert etc.).	

Date: 10. 25.12 Community Cover Scale Hasent or comparises 4.0.1 ha (0.247) acres) configuous area Hasent and other comprises small part of weldand's vegetation and is of moderate quality, or comprises a present and other comprises significant part of welland's Present and other comprises significant part of welland's vegetation and is of moderate quality or comprises a small part and is of high quality Present and comprises significant part, or more, of wetland's disturbance tolerant native species Native spe are dominant component of the vegetation, Native spe are dominant component of the vegetation, of the species diversity moderate to can also be present, and species diversity moderate to A predominance of native species, with normative spp and/or distuibance toleant native spp absent or vitually absent, and high spp diversity and other, but not always, the presence of rare, threatened, sp Narrativo Description of Vegetation Quality low |Low spp diversity and/or predominance of nonnative or moderately high, but generally w/o presence of rare threatened or endangered spp 25 Metric 6. Plant communities, interspersion, microtopography. of marginal quality Present in moderate amounts, but not of highes quality or in small amounts of highest quality Present in moderate or greater amounts amounts, but not of highes present very small amounts or if more common End of Quantitative Rating. Complete Categorization Worksheets.
 Mudflat and Open Water Class Quality

 0
 Absent -0.11a (0.247 acres)

 1
 LLow 0.1 or >41a (0.247 acres)

 2
 Moderatel 1 or >41a (2.47 acres)

 3
 High 4ha (3.88 acres) or more
 vegetation and is of high quality Check all that apply and score as indicated.
 Fan (10)
 To all agrowth forest (10)
 To all growth forest (10)
 To all growth forest (10)
 Lake Eric coastal/tholuary wetland-unrestricted hydrology (10)
 Lake Eric coastal/tholuary wetland-stricted hydrology (5)
 Lake Plain Sand Prairies (70)
 Relict Wet Frairies (70)
 Relict Wet Frairies (70)
 Significant ingrarory somplicit/water fow habitat or usage (10)
 Significant ingrarory somplicit/water fow habitat or usage (10)
 Category 1 Wetland. See Question 1 Qualitative Rating (-10) and of highest quality Rater(s): M. Li Dra, K dicrotopography Cover Scale Vegetation pour high $_{\mathcal{ZH}}|$ Metric 5. Special Wetlands. Low (1) E. Coverage of Imaske plants. Refer to Tate (1) e. Coverage of Imaske plants. Refer to radiant pints for coverage and deduct pints for coverage Moderate 257% cover (-5) Nearth 267% cover (-5) Moderate 257% cover (-5) Moderate 257% cover (-5) Arresent (-1) Arresent (-1) Arresent (-1) Cover all present using (10.3 scale. Arresent (-1) Cover all present (-1) Cover all p Base Gas, Grave 3, Line ☐ 6a. Weuland Vegetation Communities. Score all present using 0 to 3 scale. Aqualo bed Emergent Struth 6b. horizontal (plan view) Interspersion. Select only one. High (5) Moderately high(4) Moderately low (2) ORAM v. 5.0 Field Form Quantitative Rating Open water Shrub Forest Mudflats Site: W3 ≮ W 너 arundinacea F 75 phalatis 50 0 nto 20 ota ω Date: 10.25.12 2 Seasonally immedated (4) Seasonally immedated (2) Seasonally immedated (2) Seasonally saturated in upper 30cm (12in) (1) 0.0816 shrub/sapling removal herbaceous/aquatic bed removal sedimentation Doint source (nonstarmwater) filling/grading road bed/RR track dredging ²a. Calculate average buffer widh. Select only one and assign score. Do not double check. WIDE. Buffers average 56m (164) or more standard widland perimeter (7) WIARROW. Buffers average 57m (164) or more standard welland perimeter (1) NARROW. Buffers average 57m or 55m (321 to -1164), and welland perimeter (1) VERY MARROW. Buffers average 57m or 55m (321 to -1281) anound welland perimeter (1) VERY MARROW. Buffers average 57m or 55m (321 to -1281) anound welland perimeter (1) 2.0. intensity of surrounding lant uns. Select on or double check and average. NERY LOW. Of fulfers warges -10m (5221) anound welland perimeter (0) 2.0. intensity of surrounding lant uns. Select on or double check and average. NERY LOW. Of fulfers Vareaution standard, average second provid forcest. (5) MICH. Unsan, Industrial, oreen pasture, park, conservation lillege, <u>paurfalour field.</u> (3) HICH. Unsan, Industrial, open pasture, park, conservation lillege, <u>paurfalour field.</u> (3) Score all that apply. dredging farming nutrient enrichment Metric 2. Upland buffers and surrounding land use. Connectivity. $\gamma \psi$ Metric 4. Habitat Alteration and Development. other Rater(s): M. Liptak ²¹² Secures of Water. Score all that apply.
 ²¹² All other groundwater (3)
 ²¹² Properiation (1)
 ²¹² Properiation (1)
 ²¹³ Properiation (1)
 ²¹³ Properiation (1)
 ²¹⁴ Properiation (1)
 ²¹⁴ Properiation (1)
 ²¹⁵ Properiation (1)
 ²¹⁵ Properiation (1)
 ²¹⁵ Properiation (1)
 ²¹⁶ Properiation (1)
 ²¹⁶ Properiation (1)
 ²¹⁶ Properiod dearcutting selective cutting woody debris removal toxic pollutants 44. Substrate disturbance. Score one or double check and average None or more apparent (4) Reacovering (3) Recovering (2) weir stormwater input Becent or no recovery (1) Habitat development. Select only one and assign score. ◯ Metric 1. Wetland Area (size).
 Selectione size dass and assign score.

 >50 acres (10,110 × 20,213h) [5 hs]

 >50 acres (10,110 × 20,213h) [5 hs]

 >101 x x 5 acres (10,110 × 40,13h)

 >101 x x 5 acres (10,110 × 40,13h)

 >101 x x 5 acres (10,110 × 41,13h)

 >101 x 10 acres (12,10 × 41,13h)

 >101 x 10 acres (12,10 × 41,13h)

 >101 x 10 acres (10,10 + 10,13h)

 >101 x 10 acres (10,10 + 10,13h)

 >101 x 10 acres (10,04h)

 >101 x 10 acres (10,04h)

 >101 x 10 acres (10,04h)
 ster ster None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Habitat alteration. Score one or do Metric 3. Hydrology. Moderately good (4) Very good (6) Good (5) oor to fair (2) ORAM v. 5.0 Field Form Quantitative Rating 3451 last revised 1 February 2001 jjm 4^b 40, n 0 IJ J 3 3 IJ 24 authotal this Site: W Й nax 30 pts. D 0 \sim

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A vettand may be undercategorized using this method, but state shifts for more support fundtions, e.g., a weatend's biolic communities may be degraded by human advites, but the watanet may still explore throthogic. Is (undions because of its type, landscape position, aixo, local in erregional stillications, etc.), in this circumstance, the erregional stillications, etc.), thus circumstance, the controlling, and the under-categorization should be consected. A which instillication with supporting reasons of information for this determination should be provided. Is quantitative rating score jess than the Category 2 scoring threshold (accound) grays. 2000) II yas, resentuate the category of the welland using the narrative oriteria in OAC assessments to determine if the welland thas been over-category of the DORAM. Evaluate the welland using the 1) narrative oriteria in OAC Evaluate the welland using the 1) narrative oriteria in OAC Evaluate the welland using the 1) narrative oriteria in OAC Evaluate the welland using the 1) narrative oriteria in OAC Evaluate the welland using the 1) narrative oriteria in OAC Evaluate the welland using the 1) narrative oriteria in OAC Evaluate the welland to be category 3 welland using other or threes, it should be rategorized as a Category 3 welland. Detailed biological and/or includent and/or includent assessments welland. Detailed biological and/or functional assessments to elemente the welland tas threat oritical assessments to detarmine the welland tas functional assessments to detarmine the welland tas furties to the welland is located within the scoring furtue or the actegory of the welland tas the strategore a plate or the welland tas assigned to that category. In the interactive extert of the acterior of the welland tas assigned to that category. In the interactive anarrative to their a detargory, the within the scoring threat or the velocitien at assoch the welland tas assigned to that category. In the interactive to a pureflative score. Rater has the option of assigning the wetland to the higher of the two realegories or to assign a calcogory based on the results of a normapid wetland assissment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative oriteria in OAC rule 3745-1-54(C). Evaluation of Categorization Result of ORAM End of Ohio Rapid Assessment Method for Wetlands. Wetland Categorization Worksheet Final Category weatand is assigned to category as determined by the ORAM. 2 βĴ g g 02 g Wetland is taspinod to the taspinod to the taspinod to the catogories or catogories or catogory based on according the narrative the narrative YES Wetland is assigned to the appropriate category based on the scoring range YES undercategorized by this method. A writen justification for receteorization should be provided on Background Information Form Wetland is categorized as a Category 3 wetland Wetland should be evaluated for possible Category 3 status YES wetland Wetland is categorized as a Wetland was Circle one YES YES ų, Deer the welland of intervise exhibit moders of a support hydrologic OR habital. O'R hydrologic OR habital. O'R the welland vars not welland fin the case of welland fin the case of casegory 2 welland in the case of support a welland in the this method? Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands? Doos the quantitative score fall within the scoring range of a Category 1, 2, or 3 welland? Choose Narrative Rating Nos. 1, 8b, 9b, 9e, 11 Did you answer "Yes" to any of the following questions: -Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10 Did you answer "Yes" to any of the following questions: Did you answer "Yes" to Narrative Rating No. 5 Choices 우 1 or 2. If yes, evaluate for Category 3; may also be 1 or 2. If yes, Category 3 If yes, evaluate for Category 3; may also be 1 or 2. If yes, Category 3 If yes, evaluate for Category 3; may also be 1 or 2. Category based on score breakpoints If yes, evaluate for Category 3; may also be If yes, Category 3. Result If yes, Category 3. If yes, Category 1. If yes, Category 3. Complete Wetland Categorization Worksheet. circle answer or insert SCORE C YES (NO YES YES (NO VES (NO)(z)) YES NG lu 2)(2) E) **ORAM Summary Worksheet** YES NO VES (RO YES (NO N Olh 0 2 YES YES (YES YES YES (YES Metric 6. Plant communities, interspersion, microtopography TOTAL SCORE Metric 2. Buffers and surrounding land use Question 3. High Quality Natural Welland Question 2. Threatened or Endangered Species Metric 5. Special Wetland Communities Question 8b. Mature Forested Wetland Question 9d. Lake Erie Wetlands – Unrestricted with native plants Question 9e. Lake Erie Wetlands – Unrestricted with invasive plants Question 4. Significant bird habitat Question 9b. Lake Erie Wetlands -Restricted Question 5. Category 1 Wetlands Question 8a. Old Growth Forest Question 11. Relict Wet Prairies Question 10. Oak Openings Question 1 Critical Habitat Metric 3. Hydrology Question 6. Bogs Question 7. Fens Metric 4. Habitat Metric 1. Size Narrative Rating Quantitative Rating

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2016 × 0,720 R 2101 ولتعر Frank bern + colvert. 276 Prest PEN areas via 10 10 10 Category: ornsator Stormwater arudinace a) cyphrinus ip with other surface waters, vegetation zones, etc n Deciduous 5 olo Scirpus. Wetland phalan's dominated d U 0/2:56 ation of Category Changes: С. 0 500 g Approx. Receives Comments, Narrative Discussion, Jus 20 VON Phalarisresident Wetland Size (acres, hectares): Sketch: Include north arrow, n Grmed Final score : Name of Wotland: 1 Woo ds Review 3 Stow OH 44224 -Z < J > Location of Wetland: include $r_{
m pap}$, address, north arrow, landmarks, distances, roads, etc. $\zeta_{\nu , M}$ M $| \mathcal{T}$ mliptak@ EnviroScience Inc. com North Canton North Canter My pleasan 05040801 <u>Stark</u> Jackson SSURGO Background Information 2012 21/2 Creek 10 N マ And the start h Rd у Ч 688.01 et a i strausser Pctober <u>letland</u> ŤΞ Ň Darrow Affiliation: EnviroScience, Nex Michael 330. naterilaA Bg lational Wetland Inventory Map 50 Name of Wetland: Ohio Wetland Inventory Map 3781 -at/Long or UTM Coordinate 'egetation Communit(ies): Section and Subsection Delineation report/map Iydralogic Unit Cade JSGS Quad Name e-mall address: Phone Number: HGM Class(es): Soil Survey Address: dinship Site Visit County Name: Date:

Base Gas, Group 3, Line 2888

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the weeland being stef. In many instances this determination will be relatively seary and the scoring boundaries will coincide with the 'jurisdirential boundary will not be assessively accounded of an isolated crant mass hocated in the middle of a farm field will likely be the same as that wetland's jurisdirential boundaries. An other instances, however, the scoring boundary will not be as easily determined. We thansis that are small or isolated from other surface waters often form large complexes are so therengeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundary will not be used and a should be testiblished where the volume. How, or velocity of water moving through the wetland changes significanty. *Lases with a high degree of hydrologic regime of Natural* Section 50. In certain instances, it may be filteruit to estabilish the scoring boundary for the wetland being rated. These problem strutede wetlands that form a patchwork on the indicated buy artificial boundaries. Itice of the appropriate struttoins are discussed below, howere, it is recommended that Rater contact on ERA. Posision 65 Surface Water, 4210Wetlands Section 11 there are additional guestions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

not applicable			1		>	
done?	>	\rightarrow	$\left \right>$	$\left \right>$		
Steps in properly estabilshing scoring boundaries	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	Literity his locations were there is physical evidence that hydrology changes repidy. Such evidence inductas but near- induced charges including, constructions caused by berms of effes, points where the varies velocity charges rapidy at profits or fails, points where significant inflows cocur at the confluence of fives, points where significant inflows cocur at the confluence of thes, points where significant inflows cocur at the confluence of thes, other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	Delineate the boundary of the vestand to be rated such that all areas of interact that are ontoguous to and whith the areas where the hybridogy does not charge significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	Determine if adfinate bundaries, such as property times, state lanes, tradisticational embanyments, etc., are present. These should not be used to establish scoring boundaries unless they concide with areas where the hydrologic regime changes.	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wellands that could be scored separately.	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wellands that form a patchwork on the landsrape, divided by artificial boundaries, conliguous to streams, lakes or rivers, or for dual dassifications.
#	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6

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

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Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information oblidated from the site visit or the literature *and* by submitting a Data Services Request to the Ohlo phartment of Natural Resources. Division of Natural Areas and Pheserves, Matural Harlange Data Services, 1889 Fountain Square Court, Budling F.-1. Columbas, Ohio 45224, 614-2555 6435 (phone), 614-2555 2553 (phone), 614-2555 2553 (phone), 614-2555 2553 (phone), 614-2555 5635 (phone), 614-2555 5643 (phone), 615-555 5643 (phone),

Question	Circle one	(
Critical Habitat. Is the wetland in a township, section, or subsection of a United States Genforded Survey 7.5 minute Outscherded Hab has	YES	OZ)
been designated by the U.S. Fish and Wildlife Service as whether a being the service of the serv	Wetland should be	Go to Question 2
Note: as of January 1, 2001, of the federally listed endangered or	evaluated for possible Category 3 status	
urreturner speces when can be tound in Only. The Indiana bat has had critical habitat designated (50 CFR 17, 25(a)) and the piping plover has had critical habitat proposed (55 FFR 41512 July 6, 2000).	Go to Question 2	(
Threatened or Endangered Species. Is the welland known to contain an Individual of or dominanted occurrences of federal or state listed	YES	ON
un mundor of and and of and of animal species?	Wetland Is a Category 3 wetland.	Go to Question 3
	Go to Question 3	(
Documented High Quality Wetland. Is the welland on record in Natural Heniage Database as a high guality welland?	YES	- ON
	Wetland is a Category 3 wetland	Go to Question 4
	Go to Question 4	(
Significant Breeding or Concentration Area. Does the welland	YES (NO
contain occumenter regionary signinicam creecing or nonprecing waterfowi, neotropical songbird, or shorebird concentration areas?	Wetland is a Category 3 wetland	Go to Question 5
	Go to Question 5	(
Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) In size and historicality is all the and either 1) completed of	YES (ON
vegetation that is dominated (greater than eighty per cent areal cover) hy Phalars artinitized (greater than eighty per cent areal cover)	Wetland is a Category	Go to Question 6
2) an acidic pond created or excavated on mined lands that has little or no vocetation?	Go to Ouestion 6	(
Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows. 2) summers actionhillic mosses.	YES	ON
particularly Sphagnum spp., 3) the acidophilic mosses have >30%	Wetland is a Category	Go to Question 7
cover, 4) at least one species from 1 able 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	3 wetland Go to Ouestion 7	(
Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	YES ((ON
is saturated during most of the year, primanily by a discharge of free flowing mineral rich amund water with a circumneutral of /5 5-9 0)	Wetland is a Category	Go to Ouestion 8-
and with one or more plant species listed in Table 1 and the cover of invarius representation in Table 1 is <55%?	3 welland	
	Go to Question Ba	(
"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics:	YES	ON
overskory carriept uses or great age (exceeding at least 50% of a projected maximum attainable age for a species) (ittle or no evidence	vveuano is a category 3 welland.	
or invitant-advance university diskup advance of unity or plast of out or fou years: and-aged structure and multilayered canoples; aggregations of canopy trees interspersed with canopy gaps; and significant numbers	Go to Question 8b	

Table 1. Characteristic plant species. Dog species Oak Opening species wet prairie species Invrasivelexentic spp fen species bog species 0.ak Opening species wet prairie species Jythrumsdicana Zygndams elignav an glueus Calla pairstras Carac cognologis Calamericanis Mintropylaum Carac duration on Carac addiction Carac cognologis Carac cognologis Carac cognologis Mintropylaum Carac duration Carac cognologis Carac cognologis Carac cognologis	admacca Carrex aterilis Carrex algosperma Clandium microalois ustrarilis Carrex aterilis Carrex algosperma Clandium microalois i crispas Descharpedia cospitas Catarantekoptine calculation Descharpedia cospitas Catarantekoptine calculations regula Gentanopeas est fillal Gentanopeas est fillal Gentanopeas est fillal Gentanopeas est fillal Gentanopeas est an Parmasal planeri Scherebari platerts Porostali Alforeses Fi	lacea locatium morecupton lacea locatium nerecontos locatium nycocces Noceinarda vignica Xyris difermis an	End of Narrative Rating. Begin Quantitative Rating on next page.					0
Go to Question 3a	NO 60 to Question 10 NO Go to Question Bc	NO Ga ta Question 10 NO	Go to Question Se NO Go to Question 10 Go to Question 10	NO Go to Question 11	NO Complete Complete	Rating		
YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	YES Go to Question 9b YES Wetland should be evaluated for possible Catogory 3 status	Go to Question 10 YES Go to Question 9d YES	Wetland is a Category 3 wetland Go to Question 10 YES Wetland should be	evaluated for possible Category 3 status Go to Question 10 YES Wetland is a Category 3 wetland.	Ga ta Question 11 YES Wetland should be	evaluated for possible Category 3 status Complete Quantitative Rating		
Mature forested wetlands. Is the wetland a forested wetland with 55% or more of the cover of upper forest campy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7h) dbh?	Lake First coastail and thitburdy verticated, is the meditor located at an elevation less than 575 feat on the USGS map, adjacent to first an elevation, or adming a thitburdy to Lake Eirkh that is accessible to fish? Does the weilbard's typicology result from masures adjarged to prevent erestion and the foss of qualite plans, its, the weilbard is partially hydrologically restricted from Lake Eirk due to lakeward or landward dikes or other hydrological controls?	Are Lake Erie water levels the welland's primary hydrological influence. I.e., the welland is hydrologically unrestricted (no lakeward or upland bodre infleations), to her welland can be charactered as an extramer welland with lake and fiver influenced hydrology. These include acapter doportion wellands, estuante wellands, infer mouth wellands, or throse edominated by submested aquatics vegatation. Does the welland have a predominance of native species within lis.			several incluses of the tracka, and other with a dominance of the graminous vogration listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this you of wellend and its quality. Relict work Praintics. Its huw welland a click way praintic dominated by some or all of the species in Table 1. Extensive praintics were formed click to Date Praintics.	untes), anoutory Planet Wyanouc, Crawfort, and Watom untes), northwast Dhia (a.g. Eftel, Huron, Lucas, Wood Courties), d portions of western Dhio Counties (a.g. Darke, Mercer, Miami, ingomery, Van Wert etc.).		

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Date: 10.25.12 ommunity Cover Scale Absent comprises 40.11a (0.2471 acres) contiguous area Present and ether comprises small part of weland's vegetation and is of move usaity, or comprises a Present and ether comprises significant part of wetland's Present and ether comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality Present and comprises significant part, or more, of wetland's disturbance tolerant native species Native spp are dominant component of the vegetation, shough nonmative 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 indengered spp 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 aiways, the presence of rare, threatened, or endangered spp Narrative Description of Vegetation Quality low |Low spp diversity and/or predominance of nonnative or $\mathcal{Z}_{\mathcal{Z}}$ Metric 6. Plant communities, interspersion, microtopography. of marginal quality Present in moderate amounts, but not of highest quality or in small amounts of highest quality Present in moderate or greater amounts resent very small amounts or if more commor End of Quantitative Rating. Complete Categorization Worksheets.
 Mudflat and Open Water Class Quality

 0
 Absent -0.1ha (0.247 acres)

 1
 Low 0.1ho -4.1ha (0.247 acres)

 2
 Moderate 1

 3
 High 4ha (2.848 acres) or more
 vegetation and is of high quality Check all that apply and score as indicated. For (10) Cold growth foreat (10) Cold growth foreat (10) Cold growth foreat (10) Lake Fine costabilithuary wetland-unreshticted hydrology (10) Lake Fine costabilithuary wetland-unreshticted hydrology (5) Lake Fine Station (20ek Openings) (10) Relict Wot Parifics (Colek Openings) (10) Relict Wot Parifics (Colek Openings) (10) Relict wot Parifics (10) Significant impratory somplitivitivative Reling (10) Category 1 Wetland. See Question 1 Qualitative Reling (10) and of highest quality **Nak** Microtopography Cover Scale Rater(s): //, Lip Vegetation Co pom high 33 Metric 5. Special Wetlands. Score all present using 0 to 3 scale. Vegetated hummucksturssudes 1 Loares woody debris >15cm (6in) C Standarg dead >25cm (10in) dbh C Amphibian breeding pools or deduct points for coverage Activative 325%, cover (-5) Nucderate 22-75%, cover (-1) Sparse 5-25%, cover (-1) Naary absent (-1) Absent (1) Get, Micropography, Open water Other horizontal (plan view) Interspersion. 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale. Aquatic bed Emergent Moderately high(4) ORAM v. 5.0 Field Form Quantitative Rating Ņ En. Shrub Forest Mudflats High (5) 6b. horizontal (p Select only one. Site: WETIand the inscent 300 2 ibtolul first p subtata N thelomise 0 0 ω

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

 Thigh providence (5)

 Other groundwater (5)

 Other groundwater (5)

 Other groundwater (5)

 Other groundwater (6)

 Other groundwater (7)

 Precision (1)

 Precision (1) Date: |0.25.12 20.1ec shrub/sapling removal Herbaceous/aquatic bed removal 2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE: Buffers average 26m (1404) romere around weiland perimeter (7) WIDE: Buffers average 25m to 45m (25 to 4164) around weiland perimeter (1) NARROW. Buffers average 25m to 45m (25 to 4164) around weiland perimeter (1)
 2b. Hintensity of sumcuroting lances average 170m (4224) around weiland perimeter (1)
 2b. Hintensity of sumcuroting land use. Select on er double hocks and average.
 2b. Hintensity of sumcuroting land use. Select one or double hocks and average.
 2b. Honton V. Buffers average 470m (4224) around weiland perimeter (1)
 2b. Hintensity of sumcuroting land use. Select one or double hocks and average.
 2b. HONCENTER, FUIGH, FRESH, FUIRH, RESH, FUIRH, Satamah, Wildlie area, etc. (7)
 2b. HINTE, VICH, FRESH, FUIRH, RESH, FUIRH, Satamah, Wildlie area, etc. (7)
 2c. HUME, Under Artificht, Under Fuire, Freider, now corporale, and york, conservation fillago, new fallow field. (3)
 2c. HINTE, Under Midstrial, Total Fasture, new corporale, minite, construction (1) point source (nonstom falling/grading crad bed/RR track dredging other_ sedimentation dredging farming nutrient enrichment Metric 2. Upland buffers and surrounding land use. 35 Metric 4. Habitat Alteration and Development. Rater(s): M. Libtak MI ices observed
 A.
 Substrate disturbance. Score one or double check and average. None or more apparent (4) Recovering (2) Recovering (2) Recovering (2) Recovering (2) Recovering (2) Recovering (2) Ab. Habitat development. Select, only one and assign score. Very good (5) Recovering (2) Poer (1) Poer (1) Recovering (3) Recovering (4) Recovering (4) Recovering (4) Recovering (4) Recovering (4) Recovering (4) Rec selective cutting woody debris removal toxic pollutants ditcin tile welr stormwater input Check all disturb Metric 1. Wetland Area (size). The scient area and assign score. The score scient score (dass and assign score. The score score (das) (do (1 to (2 20,214)) (d (5 1s)) The score (1 do (1 to (2 20,214)) (d (5 1s)) The score (1 do (1 do (2 1 do (1 d (3 1 d))) (d (2 1 d)) The score (1 d (2 1 d) (d (2 1 d)) (d (2 1 d)) The score (1 d (2 1 d) (d (2 1 d)) (d (2 1 d)) The score (1 d (2 1 d)) (d (2 1 d)) (d (2 1 d)) The score (1 d (2 1 d)) (d (2 1 d)) (d (2 1 d)) The score (1 d (2 1 d)) (d (2 1 d)) (d (2 1 d)) The score (1 d (2 1 d)) (d (2 1 d)) (d (2 1 d)) The score (1 d (2 1 d)) (d (2 1 d)) (d (2 1 d)) The score (1 d (2 1 d)) (d (2 1 d)) (d (2 1 d)) (d (2 1 d)) The score (1 d (2 1 d)) (d (2 1 d))) The score (1 d (2 1 d)) (d (2 1 d))) (d (2 1 d)) (d (2 1 d))) (d (2 1 d)) (d (2 1 d))) (d (2 1 d)) (d (2 1 d))) (d (2 1 d)) (d None or none apparent (12) Recovering (1) Recovering (3) Recent or no recovery (1) ZU Metric 3. Hydrology. ORAM v. 5.0 Field Form Quantitative Rating Wetland last revised 1 Fobruary 2001 jjm 2 N 2 Total this page 1 er^{ente} erena max 20 pla. \tilde{c} Site: N 0° 0 ァ

Base Gas, Gravp 3, Line

00 00 00

N

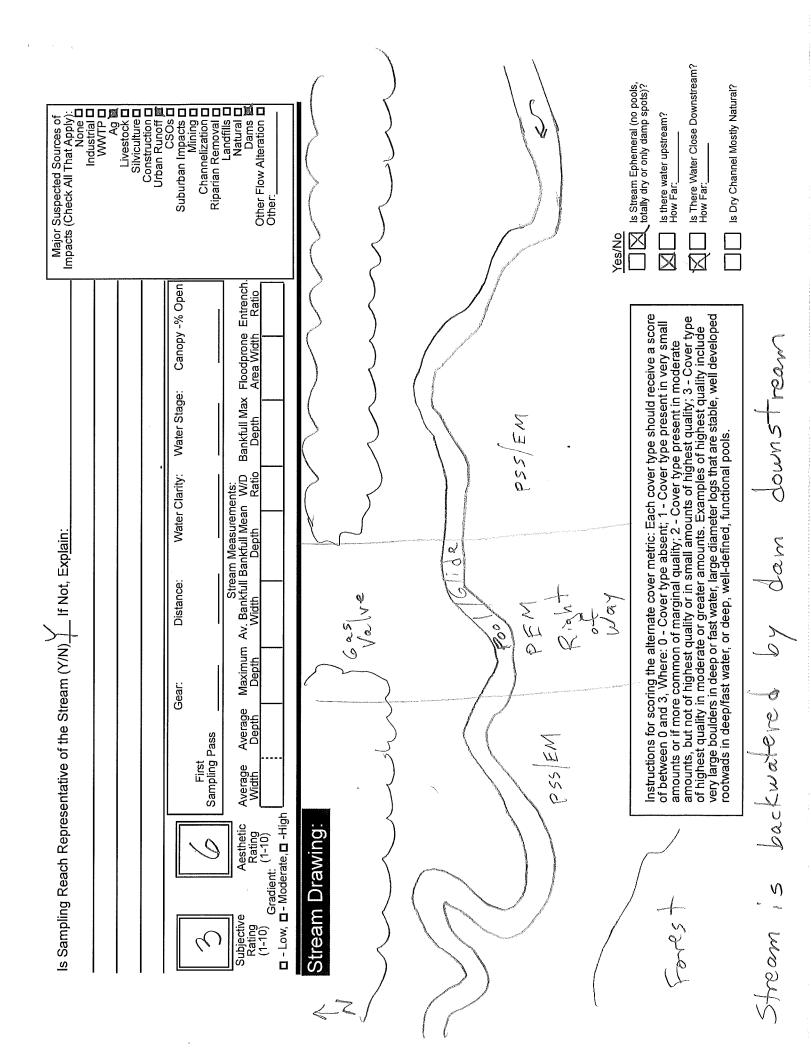
A weitand may be undercategorized using this method, but attention of the concentration functions are a weitand's biolic communities may be degraded by human activitogic biolic communities may be degraded by human activitogic functions because of its type, landscape position, siza, local neurative activities in OAC taule 3745-1540(2)2 and (3) are controlling, and the under-categorization should be provided information for this determination with support grazeons or information for this determination with support Weisurg structure (2) and x0 structures are structure in the wetland. Steteminhed to be a Category's Wetland (using the wetland, Detailed biological and/or functional assessments are structure. Detailed biological and/or functional assessments. Is quantitative structure structure assessments are structure and the structure assessments are structure and the structure assessments. The quantitative structure assessments to detain the Wetland, If yes, revealing the wetland to structure assessments to detain the Net and the structure assessments are assessments to detain the Net assessment assessments to detain the Net assessments to detain the Net assessments the standing the mand/or distructure assessments to detain assessments the detained assessments to detain the Net and the provided and the standing the assessment assessments the standing the assessment assessments the standing the standing the standing the assessment assessments the standing the standing the standing the standing the standing the standing the assessment assessment assessments assessments the standing the standing the standing the assessment assessments the standing the stand Is quantitative rating score lass than the Category 2 scoring threshold classifier care in the scale and the category of the weather using the marative criteria in OAC Rule 374-142-1421 and biological and/or functional assessments to determine if the welland has been over-categorized by the ORAM Rater has the option of assigning the weitland to the higher of the two exterports error to assign a custophy based on the results of a normapid welland assessment motion, e.g. functional assessment, biological assessment, etc. and a consideration of the neurative criteria in OAC noi 9745-1-84(C). Evaluate the wettand using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If Evaluation of Categorization Result of ORAM End of Ohio Rapid Assessment Method for Wetlands. Category 3 Wetland Categorization Worksheet Final Category NO Welland is assigned to category as determined by the ORAM. Q βĴ g g Welland is assigned to the insigned to the categories or category based on actigory based on assessments and the narrative YES undercategorized by this method. A written justification for recedeorization should be provided on Background Information Form Wetland is categorized as a Category 1 wetland Wetland is assigned to the appropriate caregory based on the scoting range Category . Welland is categorized as a Category 3 welland Wetland should be evaluated for possible Category 3 status YES Wetland was Circle one YES ΥES YES Choose one exhibit moderator ditervise exhibit moderator ditervise hydratogic OR tabilita, OR hydratogic OR tabilita, OR the weight was not the weight was not weight of the tase of weight of the tase of weight of the tase of accelete intromy of weight of the tase of supervise of this method? Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wellands? Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 welland? Namative Rating Nos. 1, 8b, 9b, 9e, 11 Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10 Did you answer "Yes" to any of the following questions: Did you answer "Yes" to any of the following questions: Did you answer "Yes" to Narrative Rating No. 5 Choices 9 aray zone If yes, evaluate for Category 3; may also be 1 or 2. Tyes, evaluate for Category 3; may also be 1 or 2. If yes, Category 3 If yes, evaluate for Category 3; may also be 1 or 2. If yes, Category 3 Category based on score breakpoints If yes, evaluate for Category 3; may also be 1 or 2. If yes, Category 3. If yes, Category 3. Ν If yes, Category 3. Result If yes, Category 1. 101 Complete Wetland Categorization Worksheet. answer or insert c_{c} YES NO eros score YES NO YES (NG) YES NO circle YES (NO YES (NO YES (NO YES NO VES (Q 5 YES (NO YES NO YES (NO **ORAM Summary Worksheet** 2 Ø Q 0 0 ŝ Metric 2. Buffers and surrounding land use Metric 6. Plant communities, interspersion, Question 2. Threatened or Endangered Species Question 3. High Quality Natural Wetland Metric 5. Special Wetland Communities Question 8b. Mature Forested Wetland Question 9d. Lake Erie Wetlands – Unrestricted with native plants Question 9e. Lake Erie Wetlands – Unrestricted with invasive plants Question 4. Significant bird habitat Question 9b. Lake Erie Wetlands -Restricted Question 5. Category 1 Wetlands Question 11. Relict Wet Prairies Question 8a. Old Growth Forest Question 10. Oak Openings Question 1 Critical Habitat Metric 3. Hydrology Question 6. Bogs Question 7. Fens Metric 4. Habitat microtopography TOTAL SCORE Metric 1. Size Narrative Rating Quantitative Rating

Appendix E:

Stream Habitat Forms

TYPE POOL □-BLDR /SLBS[10] □-BOULDER [9] □-COBBLE [8] □-HARDPAN [4] □-MUCK [2] 50 □-SILT [2] 50 NUMBER OF SUBSTRATE T (High Quality Only, Score 5) COMMENTS	DNLY Two SubstrateTYPE E RIFFLE POC DD-GRAVEL [7]	ation: <u>£nvi ∽oSc</u> BOXES; Estimate % pres DL RIFFLE <u>SUBSTRATE (</u> Check ONE (OR 2) Check ONE (OR 2) Che	<u>rk Car</u> ience, Ins sent <u>DRIGIN</u> & AVERAGE)	40,905074 C, SUBSTRATE QUALITY Check ONE (OR 2 & AVERAG G.SILT HEAVY [-2]	1 <u>, 81,48801 1</u> Ge)
Scorers Full Name: 1 1] SUBSTRATE (Check O TYPE POOL -BLDR /SLBS[10] -BOULDER [9] -COBBLE [8] -HARDPAN [4] -GHARDPAN [4] -SILT [2] -SO NUMBER OF SUBSTRATE T (High Quality Only, Score 5 COMMENTS 2] INSTREAM COVER (0	M, Lipiak Affilia DNLY Two SubstrateTYPE E RIFFLE RIFFLE POO □ -GRAVEL [7] □ □ -SAND [6] □ □ -BEDROCK[5] □ □ -DETRITUS[3] □ □ -ARTIFICIAL[0] NOTE: Ignore Studge Origin	ation:fn'vi ro≦c f BOXES; Estimate % pres DL RIFFLE <u>SUBSTRATE (</u> Check ONE (OR 2 f Check ONE (OR 2 f □ -LIMESTONE □ -LIMESTONE □ -TILLS [1] 	i <u>ence, In</u> sent <u>ORIGIN</u> & AVERAGE)	SUBSTRATE QUALITY Check ONE (OR 2 & AVERAG	
1] SUBSTRATE (Check C TYPE POOL -BLDR /SLBS[10] -BOULDER [9] -COBBLE [8] -COBBLE [8] -HARDPAN [4] -SILT [2] -50 NUMBER OF SUBSTRATE T (High Quality Only, Score 5 COMMENTS 2] INSTREAM COVER (0	DNLY Two SubstrateTYPE E RIFFLE POO GRAVEL [7] GRAVEL [7] GR	30XES; Estimate % pres DL RIFFLE <u>SUBSTRATE (</u> Check ONE (OR 2 & Check ONE (OR 2 & 	sent <u>ORIGIN</u> & AVERAGE)	<u>SUBSTRATE_QUALITY</u> Check ONE (OR 2 & AVERAG	3E)
Image: Constraint of the second state of the second sta		Check ONE (OR 2 2 口 -LIMESTONE 口 -TILLS [1] 貿 -WETLANDS	& AVERAGE)	Check ONE (OR 2 & AVERAG	ЭE)
□ □-BOULDER [9] □ □-COBBLE [8] □ □-HARDPAN [4] □ □-MUCK [2] <u>50</u> □ □-SILT [2] <u>50</u> NUMBER OF SUBSTRATE T (High Quality Only, Score 5 COMMENTS 2] INSTREAM COVER (0		□ -LIMESTONE □ -TILLS [1] □ JI -WETLANDS	-)C)
COMMENTS 2] INSTREAM COVER (0)		□ -TILLS [1] ∭ -WETLANDS			•
Image: Hardpan [4] Image: Hardpan [2] I	Detritus[3] Detritus[3] Detritus[3] Detritus[3] Note: Ignore Sludge Origin	📺 -WETLANDS		□ -SILT MODERATE [-1]	Substrate
NUMBER OF SUBSTRATE T (High Quality Only, Score 5 COMMENTS_ 2] INSTREAM COVER ((NOTE: Ignore Sludge Origin		[0]	□ -SILT NORMAL [0]	
NUMBER OF SUBSTRATE T (High Quality Only, Score 5 COMMENTS 2] INSTREAM COVER ((NOTE: Ignore Sludge Origir From Point Sources	🗖 - HARDPAN [0	י <u>ה</u>		
(High Quality Only, Score 5 COMMENTS 2] INSTREAM COVER ((_ 5////251010			Max 20
(High Quality Only, Score 5 COMMENTS 2] INSTREAM COVER ((YPES: D-4 or More [2]	RIP/RAP [0]		-MODERATE [-1] -NORMAL [0]	
2] INSTREAM COVER (□ -SHALE [-1]	. [0]	\square -NONE [1]	
		COAL FINES			
(Structure)	Give each cover type a score TYPE: Score All Th		nstructions)	AMOUNT: (Check ONLY One	^{e or} Cover
UNDERCUT BANKS [1]	<u>2</u> POOLS> 70 c		ACKWATERS [1]	check 2 and AVERAGE) □ - EXTENSIVE > 75% [11]	
			CROPHYTES [1]	T - MODERATE 25-75% [7]	13
SHALLOWS (IN SLOW WAT				□ - SPARSE 5-25% [3]	Max 20
	MENTS:			- NEARLY ABSENT < 5%[1]]
-	OGY: (Check ONLY One F				Channel
	ELOPMENT CHANNELIZA EXCELLENT [7] Q - NONE [6			<u>ions/other</u> Ing □- Impound.	
	GOOD [5] 🖾 - RECOVE		E [2] - RELOCA		12
□ - LOW [2] □ - F	AIR [3]	RING [3]	⊠ CANOP'	y Removal 🗖 - Leveed	Max 20
🗖 - NONE [1] 🔤 - F	POOR [1] D- RECENT		D - DREDGI		G
COMMENTS	RECOVERY [1	LI - UNE SIL	DE CHANNEL MODIFICATIONS	
	BANK EROSION(check ON	E box per bank or check 2 a	- Ind AVERAGE per	bank) 🖗 River Right Looking	g Downstream 🖗
RIPARIAN WIDTH	<u>FLOOD PL</u>	LAIN QUALITY (PAST 100		BANK EROSION	Riparian
L R (Per Bank)	L R (Most Predominant F			L R (Per Bank)	
IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Image: Big Forest, Swamp [3] Image: Distribution of the state of the sta	F (0 -	ERVATION TILLAGE		
□□- NARROW 5-10 m [2]	RESIDENTIAL, PARK, NI				
-	1]		IG/CONSTRUCTIO	N [0]	
COMMENTS:					
5.]POOL/GLIDE AND RIF	FLE/RUN QUALITY				Pool/
MAX. DEPTH	<u>MORPHOLOGY</u>	<u>cu</u>	RRENT VELOCIT	Y [POOLS & RIFFLES!]	Current
(Check 1 ONLY!)	(Check 1 or 2 & AVERA	,	•	That Apply)	
	-POOL WIDTH > RIFFLE WID -POOL WIDTH = RIFFLE WID			-TORRENTIAL[-1] -INTERSTITIAL[-1]	
	□ -POOL WIDTH = RIFFLE WID	• •	•	-INTERMITTENT[-2]	Max 12
□ - 0.2- 0.4m [1]		I -SLOW		-VERY FAST[1]	
□ - < 0.2m [POOL=0]	COMMENTS:				
					Riffle/Run
RIFFLE DEPTH	<u>RUN DEPTH</u>	K ONE OR CHECK 2 AN <u>RIFFLE/RUN SUBSTF</u>		IFFLE/RUN EMBEDDEDNESS	
□ - Best Areas >10 cm [2]	□ - MAX > 50 [2]	D-STABLE (e.g.,Cobble		- NONE [2]	
Best Areas 5-10 cm[1]	□ - MAX < 50[1]	D-MOD. STABLE (e.g.,L			Max 8
□ - Best Areas < 5 cm		□-UNSTABLE (Fine Grav	vel,Sand) [0]	- MODERATE [0] - FYTENSIVE [1]	Gradient
[RIFFLE=0] COMMENTS:		,) - NO RIFFLE [□ - EXTENSIVE [-1] [Metric=0]	$\Box D$
	2				Max 10
6] GRADIENT (ft/mi): <u>2</u>	DRAINAGE AREA (s	sq.mi.) : <u>75</u> 7 %	%POOL: 10	0 %GLIDE:	Wax IV
** Best areas must be large enough to supp		0	%RIFFLE:	%RUN:	
					00/04/04
EPA 4520					06/24/01
			1		00/24/01
EPA 4520 10ft in = 26.7	1,982ft	15668	t = 0, 8	865 mi 201 1033 0,	$\frac{(+)}{865} = 23$

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OhicEPA Primary H	leadwater Habitat Evaluation Form HHEI Score (sum of metrics	
LENGTH OF STREAM REACH (ft) LAT. 4 DATE (1)-75-12 SCORER M L	2888 , Stork (0, Storson Hulp) DRAINAGE AREA (mi ²) 0,45 0,90136 LONG.81,48801 RIVER CODE_ COMMENTS - Refer to "Field Evaluation Manual for Ohio's PHWH Str	
Energy was and the reaction of the state of the		
(Max of 32). Add total number of significar	y type of substrate present. Check ONLY two predominant substrate th substrate types found (Max of 8). Final metric score is sum of boxe RCENT TYPE SILT [3 pt] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] SILT [3 pt] CLAY or HARDPAN [0 pt]	
evaluation. Avoid plunge pools from road > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	RATE TYPES: TOTAL NUMBER OF SUBSTRATE 1 ximum pool depth within the 61 meter (200 ft) evaluation reach at culverts or storm water pipes) (Check ONLY one box): > 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	the time of Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the a > 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 $ O' , O' , 5$	Iverage of 3-4 measurements)(Check ONLY one box): \bigcirc > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] \bigcirc < 1.0 m (\leq 3' 3") [5 pts] \checkmark \land \checkmark \land \checkmark \land \checkmark \land \checkmark \land <td>neters)</td>	neters)
RIPARIAN ZONE AND FLOODPL <u>RIPARIAN WIDTH</u> L R (Per Bank) Mide >10m Moderate 5-10m Narrow <5m None	FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field	ervation Tillage n or Industrial n Pasture, Row
COMMENTS FLOW REGIME (At Time of Evalue Stream Flowing Subsurface flow with isolated pools COMMENTS	Moist Channel, isolated pools, no	· ·
SINUOSITY (Number of bends pe	r 61 m (200 ft) of channel) (Check ONLY one box): 1.0 □ 2.0 ☑ 3.0 1.5 □ 2.5 □ >3	
☐ Flat (0.5 ft/100 ft) ☐ Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe	Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - 🗇 Yes 🕅 No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: // misi a Creek 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
County: Township / City:
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation: Quantity:
Photograph Information:Upstream from center ofreach
Elevated Turbidity? (Y/N): Canopy (% open):
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N):
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
TO PS +
FLOW FLOW

October 24, 2002 Revision

SITE NAME/LOCATION Base Gas, Group 3, Line 2880 SITE NAME/LOCATION Base Gas, Group 3, Line 2880 SITE NUMBER 2A RIVER BASIN TUSC ARAWAS DRAINAGE AREA (mi?) 0,3.	5
LENGTH OF STREAM REACH (ft) LAT. <u>40,90024</u> LONG. <u>81,48801</u> RIVER CODE RIVER MILE DATE 11.13.12 SCORER K. Tomasello COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructio STREAM CHANNEL ON NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVER MODIFICATIONS:	
TYPE BLDR SLABS [16 pts] PERCENT TYPE SILT [3 pt] PERCENT TYPE Image: Description of big methods of post of the pts BOULDER (>256 mm) [16 pts] Image: Description of big methods of post of the pts Image: Description of big methods of post of the pts Image: Description of big methods of post of the pts Image: Description of the pts	HEI etric bints x = 40 4 + B
Zi maximum i oor bopti inoucare ne maximum poer acput triant are or inter ($\frac{1}{2} \frac{\text{Depth}}{5}$
□ > 4.0 meters (> 13) [30 pts] □ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	ankfull Vidth ax=30 5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY INNOTE: River Left (L) and Right (R) as looking downstream Integration of the second downstream Integrating the second downstream Integration of the se	
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 0.5 1.5 2.5 >3	
STREAM GRADIENT ESTIMATE	

June 20, 2008 Revision

74

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ADDITIONAL STREAM INFORMATION (This Information Must Also	be Completed):
QHEI PERFORMED? - 🗍 Yes 🧖 No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	Distance from Evaluated Stream Distance from Evaluated Stream
	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Towns	
MISCELLANEOUS	mp / oky,
Base Flow Conditions? (Y/N): Date of last precipitation:	Quantity:
Photograph Information:	
Elevated Turbidity? (Y/N): Canopy (% open):	
Were samples collected for water chemistry? (Y/N): (Note lab	sample no. or id. and attach results) Lab Number;
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, p	please explain:
Additional comments/description of pollution impacts:	
	collections optional. NOTE: all voucher samples must be labeled with the site sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Ol Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquati	served? (Y/N) Voucher? (Y/N) c Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):

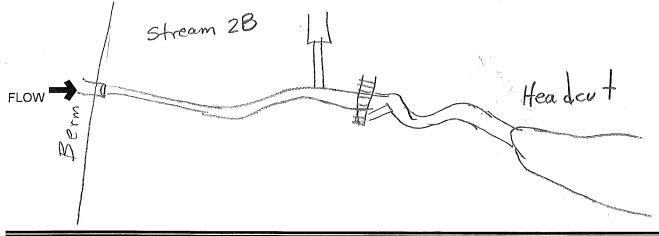
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

June 20, 2008 Revision

OneEPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) : 니	5
SITE NAME/LOCATION Line 2888, Stark Co. Deckson Taip SITE NUMBER 218 RIVER BASIN DRAINAGE AREA (mi²) 0.37 LENGTH OF STREAM REACH (ft) LAT. 40,9003 LONG. 81.48837 RIVER CODE RIVER MILE DATE 10+25+12 SCORER ML COMMENTS	Ictions
1. 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 BLDR SLABS [16 pts] PERCENT TYPE BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] 5 CLAY or HARDPAN [0 pt] 32 GRAVEL (2-64 mm) [9 pts] 5 CLAY or HARDPAN [0 pt] BUCK [0 pts] Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock (A) (A) (B) Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock (A) COA (B) (B) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: COA	HHEI Metric Points Substrate Max = 40
	Pool Depth Max = 30 2 O Bankfull Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstreams'r RIPARIAN WIDTH FLOODPLAIN QUALITY Conservation Tillage L R (Per Bank) L R Moderate >10m Moderate Forest, Wetland Conservation Tillage Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial None Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Opm Mature Forest Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 0.5 1.5 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat (0.5 ft/100 ft)) ft)

QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI Form) DOWNSTREAM DESIGNATED USE(S)	ADDITIONAL STREAM INFORMATION (This Information M	ust Also be Completed):
□ CWH Name:	QHEI PERFORMED? - 🗇 Yes 🕅 No QHEI Sco	re (If Yes, Attach Completed QHEI Form)
□ CWH Name:	DOWNSTREAM DESIGNATED USE(S)	Distance from Evoluated Stream
Distance from Evaluated Stream		
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name:		
USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order County: Township / City: Quantity: MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: Quantity: Quantity: Photograph Information:Upstream from center ofreach Elevated Turbidity? (Y/N): Canopy (% open): Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (*C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts: Field Measures? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Comments Regarding Biology:		
County: Township / City: MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: Quantity: Quantity: Photograph Information:Upstream from center ofreach Elevated Turbidity? (Y/N): Canopy (% open): Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (*C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) If not, please explain: Additional comments/description of pollution impacts: Hort please explain: Field Measures: If not, please explain: Conductivity (µmhos/cm) If not, please explain: Field Measures: Conductive of the stream (Y/N) If not, please explain: Conductive field data sheets from the Primary Headwater Habitat Assessment Manual) Field Measure? (Y/N): Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Comments Regarding Biology: Comments Regarding Biology:	MAPPING: ATTACH COPIES OF MAPS, INCLUDING	I THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: Quantity: Photograph Information:Upstream from center ofreach	USGS Quadrangle Name:	NRCS Soil Map Page: NRCS Soil Map Stream Order
Base Flow Conditions? (Y/N): Y Date of last precipitation: Quantity: Photograph Information:Upstream from center ofreach Elevated Turbidity? (Y/N): Canopy (% open): Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain:	County:	_ Township / City:
Photograph Information: Upstream from center ofreach	MISCELLANEOUS	
Elevated Turbidity? (Y/N): Canopy (% open): Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N): M (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Comments Regarding Biology:	Base Flow Conditions? (Y/N): Date of last precipitatio	on:Quantity:
Were samples collected for water chemistry? (Y/N):	Photograph Information:Upstream from center ofreact	۹
Field 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): Canopy (% open): _	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	Were samples collected for water chemistry? (Y/N): (N	Note lab sample no. or id. and attach results) Lab Number:
Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N): M (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Comments Regarding Biology:	Field Measures: Temp (°C) Dissolved Oxygen (m	g/l) pH (S.U.) Conductivity (µmhos/cm)
BIOTIC EVALUATION Performed? (Y/N):	Is the sampling reach representative of the stream (Y/N)	_ If not, please explain:
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Comments Regarding Biology:		· · · · · · · · · · · · · · · · · · ·
Performed? (Y/N):	Additional comments/description of pollution impacts:	
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Comments Regarding Biology:	Performed? (Y/N): (If Yes, Record all observations. v	/oucher collections optional. NOTE; all voucher samples must be labeled with the site
	Fish Observed? (Y/N) Voucher? (Y/N) Salama Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N)	anders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



From: susan zimmermann@fws.gov [mailto:susan zimmermann@fws.gov]
Sent: Monday, January 27, 2014 11:03 AM
To: Tara E Miletti (Services - 6)
Subject: Two Projects Reviewed by USFWS in Stark County Ohio

TAILS# 03E15000-2014-TA-0514 - Base Gas Projects, Group 3, Line 2888 TAILS# 03E15000-2014-TA-0506 - PIR 290 - 19th Street

Dear Ms. Moerner,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area.

ENDANGERED SPECIES COMMENTS: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (only clearing between October 1 and March 31) to avoid impacts to Indiana bats and northern long-eared bats, we do not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be initiated to assess any potential impacts.

If you have additional questions or require further assistance with your project proposal, please contact me at the following number (614) 416-8993, x12. In addition, you can find more information on natural resources in Ohio, and a county list of federally threatened and endangered species in Ohio, by visiting our homepage at: http://www.fws.gov/midwest/ohio.

Sincerely,

mary Knapp

Mary Knapp, PhD Field Supervisor

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

1/28/2014 2:42:14 PM

in

Case No(s). 14-2273-GA-BNR

Summary: Correspondence of Dominion East Ohio Gas Company Submitting Supplemental Information - Part 2 of 2 electronically filed by Teresa Orahood on behalf of Sally Bloomfield