<b>ChieFPA</b> Primary He	adwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) ; 50
DATE <u>7/21/15</u> SCORER <u>7/27</u> NOTE: Complete All Items On This Form - F	RIVER BASIN <u>Manual</u> DRAINAGE AREA (m <sup>3</sup> ) <u>-1.0</u> 57, M1 <u>41:106</u> LONG <u>-84.74</u> 9 RIVER CODE <u>3745-1-8</u> IVER MILE COMMENTS Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for instructions AL CHANNEL CRECOVERED RECOVERING RECENT OR NO RECOVERY
MODIFICATIONS:	E CHAIREL D'RECOVERED D'RECOVERING DORECENT OR NO RECOVERT
SUBSTRATE (Estimate percent of every by (iMax of 40). Add total number of significant s      TYPE     BLDR SLABS [16 pts]     BEDROCK [16 pts]     BEDROCK [16 pt]     GRAVEL (2-56 mm) [12 pts]     GRAVEL (2-64 mm) [9 pts]     SAND (<2 mm) [8 pts]     Total of Percentages of     BIdr Slabs, Boulder, Cobble, Bedrock     SCORE OF TWO MOST PREDOMINATE SUBSTRA	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
<ul> <li>Maximum Pool Depth (Measure the maxim evaluation. Avoid plunge pools from read cult</li> <li>&gt; 30 centimeters [20 pts]</li> <li>&gt; 22.5 - 30 cm [30 pts]</li> <li>&gt; 10 - 22.5 cm [25 pts]</li> <li>COMMENTS</li> </ul>	num pool depth within the 61 meter (200 ft) evaluation reach at the time of verts or storm water pipes)       Pool Depth         Max = 30       > 5 cm - 10 cm [15 pts]         S cm [5 pts]       NO WATER OR MOIST CHANNEL [0 pts]
3. BANK FULL WIDTH (Measured as the aver > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8'' - 9' 7') [20 pts] COMMENTS	
RIPARIAN ZONE AND FLOODPLAN <u>RIPARIAN WIDTH</u> <u>E</u> L R (Per Bank) I Wide>10m C Moderate 5-10m C Narrowi <5m C	This Information must also be completed         N QUALITY       Image: Completed for the second s
FLOW REGIME (At Time of Evaluation Stream Flowing Subsurface flow with isolated pools (In COMMENTS	Moist Channel, isolated pools, no flow (intermittent)
	1 m (200 ft) of channel) (Check ONLY one box): 1.0
STREAM GRADIENT ESTIMATE Stat (03 1/100 i) I Flat to Moderate (	Moderale (2 6/100,n) DiModerate to Severe Di Severe (10 6/100 n)

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June 20, 2008. Re	พัธโอก .
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PHWH Form Page - 1

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<b>OhioEPA</b>	Qualitative Habita and Use Assessr	t Evaluation Index nent Field Sheet	QHEI Score: 38
Stream & Location: W. Id	cat Ciell	B Full Name & Affiliation: #	RM:Date[9] 1] ]
River Code:	STORET #:		2 184.7499 Office verifi
11 SUBSTRATE Check ONLY Two	substrate TYPE BOXES;	Check ON	E (Or 2 & average)
estimate % of not BEST TYPES POOL RIFFI BEDR/SLABS [40] BOULDER [9] BOULDER [9		ORIGIN       ORIGIN       Image: State of the st	QUALITY
2] INSTREAM COVER indicate guality; 3-Highest quality in moderate diameter log that is stable, well develor in the indicate guality in moderate diameter log that is stable, well develor is guality in moderate diameter log that is stable, well develor is guality; 3-Highest quality; 3-Highest qualit	or greater amounts (e.g., very lar pped rootwad in deep / fast water, POOLS 70cm [2]	boulders in deep or fast water, i or deep, well-defined, functional p	arge Check ONE (Or 2 & average ools. ETENSIVE > 75% [11] S [1] - [1] MODERATE 25-75% [7] S [1] SPARSE 5 < 25% [3]
31 CHANNEL MORPHOLOGY	Check ONE in each category (Or	2 & everage)	
SINUOSITY         DEVELOPME           INIGH [4]         Image: Exception           Image: Modernate [3]         Image: Exception           Image: Modernate [3]         Image: Exception           Image: Modernate [3]         Image: Exception           Image: None [4]         Image: Exception           Image: Comments         Image: Exception			Channel Maximum 20
4] BANK EROSION AND RIPA	RIAN ZONE Check ONE in e	ach category for EACH BANK (Or	2 per bank & average)
	IPARIAN WIDTH DE⇒ 50m [4] □ □ □ □ DDERATE 10:50m [3] □ □ Si RROW 5:10m [2] □ □ R RYNARROW <5m [1] □ □ □ [	FLOOD PLAIN QUALIT SREST, SWAMP [3] IRUB OR OLD FIELD [2] ESIDENTIAL, PARK, NEW FIELD [	Y R B CONSERVATION TILLAGE D D URBAN OR INDUSTRIAL (0 D D URBAN OR INDUSTRIAL (0 D D MINING/ CONSTRUCTION Indicate predominant land use(s) past 100m riparian. Riparian Maximum 10
Check ONE (ONLY!) Check □>1m(6] □POOL □0.7≤1m(4) □POOL	CHANNEL WIDTH CKONE (Or 2 & average) WIDTH = RIFFLE WIDTH [2] WIDTH = RIFFLE WIDTH [4] WIDTH = RIFFLE WIDTH [0]	CURRENT VELOCITY Check ALL that apply TORRENTIAL [-1] DISLOW [1] VERY FAST [1] DINTERSTIL FAST [1] DINTERMITI MODERATE [1] DEDDIES [1] Indicate for reach - pools and riff Flows Eas	ENT [2] es. Pool / Current
Indicate for functional rif of riffle-obligate species: RIFFLE DEPTH Ri BESTAREAS 210cm [2] MAX BESTAREAS 210cm [1] MAX	Check ONE ( JN DEPTH RIFFLE / IMUM ≥505m [2] □ STABLE ( IMUM ≥505m [1] □ MOD STA	arge enough to support a Or 2 & average). RUN SUBSTRATE RIFF g. Cobble, Boulder, [2]	Population
Comments	VERY LOW LOW [24]	%P00L:()	Run Maximum B %GLIDE: Gradient

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WETLAND DETERMINATION			
Project/site: Timber Rd. III	City/County: Pa	Idone county !	Sampling Date: 9122115
Applicant/Owner: EDPR		State: OH	Sampling Point: IW@ Wet
	Section Township.	Range: Harrison	
Landform (hillslope, terrace, etc.): Terrace / Chream	Local relief (concave, c		
Subregion (LRR or MLRA): mLRA dq Lat: 4			Datum: WBS84
Soil Map Unit Name: HtA-Hoytville Silt.	filay loam 0.	-1 % slop NWI classifica	tion: TEM / KAT
Are climatic / hydrologic conditions on the site typical for this			
Are Veĝetation, Soil, or Hydrology si			esent? Yes <u>k</u> No
Are Vegetation, Soil, or Hydrology na		f needed, explain any answers	
SUMMARY OF FINDINGS – Attach site map s	howing sampling poir	it locations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes K	Is the Samp	oled Area	
Hydric Soil Present? Yes <u>Y</u> es	1. within a Me	tland? Yes <u>K</u>	No
Wetland Hydrology Present? Yes <u>K</u> No		nal Wetland Site ID:	tland B
Remarks: (Explain alternative procedures here or in a sepa			
	,		
<u></u>	<u> </u>		
HYD <b>RO</b> LOGY		ι,	
Wetland Hydrology Indicators:		Secondary Indica	ors (minimum of two required)
Primary Indicators (minimum of one is required; check all t	hat apply)	Suiface Soil (	Cracks (B6)
	er-Stained Leaves (B9)	K Drainage Pat	terns (B10)
Lange en	itic Fauna (B13)	Moss Trim Li	· · · · · · · · · · · · · · · · · · ·
	Deposits (B15)	Dry-Season \	Water Table (C2)
	rogen Sulfide Odor (C1)	Crayfish Burr	-
	ized Rhizospheres on Living	Roots (C3) Saturation Vi	sible on Aerial Imagery (C9)
	ence of Reduced Iron (C4)		ressed Plants (D1)
	ent Iron Reduction in Tilled Sc	oils (C6) Geomorphic	Position (D2)
	Muck Surface (C7)	Shallow Aqui	tard (D3)
📌 Inundation Visible on Aerial Imagery (87) 📃 Othe		Microtopogra	phic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral	Test (D5)
Field Observations:	y strain ,		
Field Observations: Surface Water Present? Yes <u>×</u> No Dep	oth (inches). 8-12		
Water Table Present? Yes X No De	oth (inches): 20"		
Saturation Present? Yes X No De	oth (inches): 6	Wetland Hydrology Preser	t? Yes <u>×</u> No
(includes capillary fringe)	-		
Describe Recorded Data (stream gauge, monitoring well,	aeria) photos, previous inspec	tions), if available:	1
		<u> </u>	
Remarks: Wild Lit Creek- See QHEI	form for details.		
- Wetland Counter with article	we of lass Clow is	alask	
- Wellond Complex with evid in the wetscason	ne se talta an ta	9 miles	
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VEGETATION - Use scientific names of plants.

	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1			:	That Are OBL, FACW, or FAC: (A)
2,	÷		·	Total Number of Dominant
3. <u></u>	·	·		Species Across All Strata: <u> </u>
4	- <u></u>			Percent of Dominant Species 100 (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6	• <u></u>	<u> </u>		Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1. Galix nigra	357	Y	OBL	FAC species x 3 =
2. Cornus ratemosa	15%	Y	FAC	FACU species x 4 =
		. <u> </u>	_ <u></u>	UPL species x 5 =
3			<u></u> 1	Column Totals: (A) (B)
4			+	Prevalence Index = B/A =
5		· · · · · · · · · · · · · · · · · · ·	-, <u></u>	
ē				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
at	50%	_ = Total Co	ver	3 - Prevalence Index is ≤3.0 <sup>4</sup>
Herb Stratum (Plot size: 5)		,		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Symphysticum Sp (White-Swamp)	15%	<u>N</u>	FACW	data in Remarks or on a separate sheet)
2. Euthamia gramministolia	20/	<u> </u>	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Phalacts acundinacea	30/	<u> </u>	FALW	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Asclepias incurata	20%	Y	OBL	be present, unless disturbed or problematic.
5 Impatiens Coponsis	10%	Ĵ.	FALL	Definitions of Vegetation Strata:
6. Alisma plantos-Cordata	25%	<u> </u>	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7Sulix Sections	.رمر -	N	OBL	at breast height (DBH), regardless of height.
E The And The Area	20%		OBL	Sapling/shrub Woody plants less than 3 in, DBH
	<u> </u>	N	ORL	and greater than or equal to 3.28 ft (1 m) tall.
9 Alisma subcodetum	10%		OBL	Herb - All herbaceous (non-woody) plants, regardless of
10. Bochmarin Gilindrich		🔂	OBL	size, and woody plants less than 3.28 ft tall.
11. Catha palitits	- 1-1-	- <u></u>	<u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u>_</u> <u>_</u> <u>_</u> <u>_</u>	Woody vines - All woody vines greater than 3.28 ft in
12. Gyccia Stricta		<u>N_</u>		height.
	9-03	_ = Total Co	over	
Woody Vine Stratum (Plot size:)				
1		. <u></u>		
2				Hydrophytic Vegetation
3		<u> </u>	<u> </u>	Present? Yes X No
4.				
		= Total C	over	
Remarks: (Include photo numbers here or on a separa	te sheet.)			
4.				

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Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the i	ndicator	or confirm	n the absence	of indicators.)
Depth	Matrix			ox Feature %	<u>s</u> Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks
(inches)	Color (moist)	<u> </u>	<u>Color (moist)</u> 5YR 5/8	35		PL/M		-Redax Picsut
$\overline{\mathbf{O} - \mathbf{H}_{\mathbf{h}}}$	104R 3/1		54R-4/4	·	 			-coar process
11.214	104R 3/1	25%		10	<u>ς</u>	M	<u>c -lo</u>	
<del></del>	109R4/1	· · · · · · · · · · · · · · · · · · ·	54618	15	<u>د</u>	<u></u>	Chry	
	181R 5/2	35%	. <u></u>			<u> </u>		·
			<u> </u>					
~	······		-					
<u> </u>	<del>.</del>	-:						
·		<u> </u>	. <u>.</u>		·			
<u> </u>	- <u> </u>		· · · · · · · · · · · · · · · · · · ·			· <u> </u>	<i></i>	
·	· · · ···			÷	. <u></u>		. <u> </u>	<u> </u>
								· · · · · · · · · · · · · · · · · · ·
	<u> </u>		· · · · ·					
	oncentration, D=Dep	nlefion RM	Reduced Matrix	 MS=Maske	d Sand G	rains.	<sup>2</sup> Locatio	n: PL≃Pore Lining, M=Matrix.
Hydric Soil		SIGUOIT, TH	<u>- 1000000 110010, 1</u>					s for Problematic Hydric Soils <sup>a</sup> :
Histosol			Polyvalue Bel		e (S8) (LF	RR,		Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149 Thin Dark Sui			n ba asin		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)
	listic (A3) en Sulfide (A4)		Loamy Mucky					Surface (S7) (LRR K, L, M)
	d Layers (A5)		Loamy Gleye	d Matrix (F			Polyv	aiue Below Surface (S8) (LRR K, L)
	d Below Dark Surfa	ce (A11)	Depleted Mat					Dark Surface (S9) (LRR K, L)
	ark Surface (A12) Mucky Mineral (S1)		<u>k</u> Redox Dark S Depleted Dar					Manganese Masses (F12) (LRR K, L, R) nont Floodplain Soils (F19) (MLRA 1498)
	Gleyed Matrix (S4)		Redox Depre					Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy I	Redox (S5)						· · · · · · · · · · · · · · · · · · ·	Parent Material (F21)
	d Matrix (S6) 		) ()					Shallow Dark Surface (TF12) r (Explain in Remarks)
	urface (S7) (LRR R,	MEDA 14	יָסי				. <u> </u>	
	of hydrophytic veget		vetland hydrology m	iust be pres	sent, unle	ss disturbe	ed or problemat	ic.
	Layer (if observed	);						
Type:	-1		_	,			Hudric So	Il Present? Yes X No
Depth (in	ncnes):				<u> </u>			
Remarks	· .		λ.					
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1								
L				<u> </u>				

	WETLAND DE	TERMINA	FION DATA FOR	RM — North	central and	Northeast Re	gion	
Project/Site:	Timber R	d. 11	City/C	county: Pau	Iding Co	unty sar	pling Date:	1/22/15
Applicant/Owner:	EDPR	• • •				ate: <u>Ó∦</u> _s	ampling Point:	10 CWet
investigator(s):	RF, CL	-	Secti	on. Township.	Range: 14 a		whsh:p	
Landform (hillslope, te		10 /5 1 2 P	A CARLES AND A C		convex, none}:	نسو	,	(%): <u>6%</u>
anoronn (misiope, te		6 0 0	411116	•		7499		W6884
Subregion (LRR or ML								<u>1~ 9% 4</u> 7
Soil Map Unit Name:	· · ·		Hy day 10		· · ·		· •	
Are climatic / hydrolog	ic conditions on the	site typical for	r this time of year? Y					
Are Vegetation	, Soil, or H	ydrology	significantly distu	rbed? A	re "Normal Cir	cumstances" prese	nt?Yes 🗡	No
Are Vegetation	, Soil, or H	ydrology	naturally problem	atic? (	If needed, expl	ain any answers in	Remarks.)	
SUMMARY OF F	INDINGS - Att	ach site m	ap showing san	npling poil	nt locations	, transects, in	iportant fea	tures, etc.
Hydrophytic Vegetat	on Present?	Yes	ND	Is the Sam			$\sim$	
Hydric Soil Present?		Yes	ND	within a We	etland?	Yes	NO	
Wetland Hydrology F	resent?	Yes	<u> </u>	l If yes, option	nal Wetland Sit	e ID: An Field		
		×						
HYDROLOGY								
	- Indianéana					condary Indicators	(minimum of h	No required)
Wetland Hydrology		hautrodi aka ak			<u></u>	Surface Soil Cra		<u>vo requireur</u>
Primary Indicators (r						Drainage Pattern		
Surface Water (	•		Water-Stained Leave Aquatic Fauna (B13			Moss Trim Lines		
High Water Tab Saturation (A3)	ie (A2)		Mari Deposits (B15)			Dry-Season Wat		
Water Marks (B	n		Hydrogen Sülfide Ö			Crayfish Burrows		
Sediment Depo	- · · · · · · · · · · · · · · · · · · ·	K _	Oxidized Rhizosphe		Roots (C3)	Saturation Visibl		gery (C9)
Drift Deposits (		· · ·	Presence of Reduce		· · · · · · · · · · · · · · · · · · ·	Stunted or Stres		
Algal Mat or Cri	-		Recent Iron Reducti		oils (C6)	Geomorphic Pos	ition (D2)	
Iron Deposits (8	35)		Thin Muck Surface (	( <b>C</b> 7)		Shallow Aquitare	(D3)	
Inundation Visit	ile on Aeria) Imagei	y (B7)	Other (Explain in Re	emarks)	. <u></u>	_ Microtopographi	s Relief (D4)	
	ated Concave Surfa	ice (B8)		_		_ FAC-Neutral Tes	it (D5)	
Field Observations								
Surface Water Pres		No <u>X</u>	Depth (inches):					
Water Table Preser		No <u>X</u>	Depth (inches):					
Saturation Present? (includes capillary fi	inge)	<u>No X</u>	Depth (inches):	:		Irology Present?	Yes	(No)
Describe Recorded	Data (stream gaug	e, monitoring a	well, aerial photos, pi	revious inspec	tions), if availa	ble:		
•								
Remarks:								
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VEGETATION - Use scientific names of plants.

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	Absolute Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover Species? Status	
	· · · ·	Number of Dominant Species ( That Are OBL, FACW, or FAC: (A)
1 <u></u>		
2		Total Number of Dominant
3		Species Across All Strata: (B)
4.		Percent of Dominant Species
		Percent of Dominant Species $50$ (A/B)
5		
6		Prevalence Index worksheet:
7		Total % Cover of Multiply by:
	= Total Cover	OBL species x1 =
-		
Sapling/Shrub Stratum (Plot size:)		FACW species x 2 =
1		FAC species x 3 =
		FACU species x4=
2,		UPL species x 5 =
3		Column Totals: (A) (B)
·4:		
5		Prevalence Index = B/A = > 5
		Hydrophytic Vegetation Indicators:
6		N 1 - Rapid Test for Hydrophytic Vegetation
	= Total Cover	2 - Dominance Test is >50%
and a comparison 10 a		$\underline{N}$ 3 - Prevalence Index is $\leq 3.0^1$
Herb Stratum (Plot size: 10 ) 1 Paleris grundingue)	35% Y FALL	▲ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2. Z. Mays.		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>2. Plays</u>		
3. Glycine most		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Arction man	107 N UPL	De present, unicas disturbed of problematic.
· 5		Definitions of Vegetation Strata:
		Tree Woody plants 3 in. (7.6 cm) or more in diameter
6	<del></del>	at breast height (DBH), regardless of height.
7	·····	
8		Sapling/shrub - Woody plants less than 3 in. DBH
		and greater than or equal to 3.28 ft (1 m) tall.
9	: ••=: •=== •==	Herb - All herbaceous (non-woody) plants, regardless of
10		size, and woody plants less than 3.28 ft tall.
11		Woody vines - All woody vines greater than 3.28 ft in
12.	· · · · · · · · · · · · · · · · · · ·	height.
	= Total Cover	
Woody Vine Stratum (Plot size:)		
1		
		Hydrophytic
2	······································	Vegetation Present? Yes No
3	·  · · · · · · · · · ·	
4	· · · · · · · · · · · · · · · · ·	-
	= Total Cover	
Remarks: (Include photo numbers here or on a separ		
Tremarka, Inteldde,proto fluithera field of off a acput		
		1
4		

rs 40		to the dep	oth needed to docun		or or comm	the absence	orintoicatori	<b>-</b> •)	
Depth (inches)	<u>Matrix</u> Color (moist)	%	Color (moist)	<u>k Features</u> % Typ <u>e</u>	1 Loc <sup>2</sup>	Texture		Remarks	
0.20+	10184/2	80				Cloy-loo	in - Jat	usated cla	v Inem
0.7.	NA EL-		· <u>·</u>				_		+
	1014-5/3	20		·			NO TEN	L plud-to	
						<u> </u>			
;	·		<u> </u>			<u> </u>	<u> </u>		
	<u></u>								
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	·	<u> </u>		<u> </u>		,			
	·			<del></del>					
		pletion, RN	I=Reduced Matrix, M	S=Masked Sand	Grains.			ining, M=Matr	
Hydric Soll	Indicators:							natic Hydric S	
Histosol	·			w Surface (S8) (I	_RR R,			LRR K, L, ML	
	pipedon (A2)		MLRA 149B	) ace (S9) (LRR R,	MI DAVIADO			x (A16) (LRR or Peat (S3) (L	
	listic (A3) en Sulfide (A4)			Vineral (F1) (LRI				(LRR K, L, M)	
	d Layers (A5)		Loamy Gleyed		****1 =-1			urface (S8) (L	
	d Below Dark Surfa	ce (A11)	Depleted Matri			Thin I	Dark Surface	(S9) (LRR K,	L)
	ark Surface (A12)		Redox Dark Su					lasses (F12) (	
	Mucky Mineral (S1)		Depleted Dark					in Soils (F19)	
	Gieyed Matrix (S4)		Redox Depress	sions (F8)				6) (MLRA 144)	a, 145, 149E
	Redox (S5)						Parent Materi Shallow Dark	au(F21) Surface (TF1	2)
	d Matrix (S6) urface (S7) (LRR R,	MIRA 14	9R)	NIA			r (Explain in F		- <i>)</i> .
	unace (or) (ERR R		<u>, (</u>	1-21-			· /		
<sup>a</sup> Indicators (	of hydrophytic veget	ation and v	vetland hydrology mu	st be present, un	less disturbed	or problemat	tíc.		
Restrictive	Layer (if observed	i):				1	•••••		
Туре			-						×V
	nches):		_			Hydric So	il Present?	Yes	No <u>X</u>
Depth (ir									

e on an agéné processe de la construction de la construction de la construction de la construction de la constr La construction de la construction d

WETLAND DETERMINATION DAT	ſ∆ E∩RM North	central and Northeast	Region
Project/Site: Timber Road III Wind Farm			
Applicant/Owner: EDPR		State: OH	_ Sampling Point: Wawd
Investigator(s): C. Liddell, R. Farchione	Section Township		
Landform (hillslope, terrace, etc.): MAN Man made Swale			
Subregion (LRR of MLRA): MLRA 99 Lat: $41^{\circ}$	<u>[ ~ [ ]</u>	Long:	Datum: <u>WGS 84</u>
Soil Map Unit Name: HtA - Hout ville silty clay			
Are climatic / hydrologic conditions on the site typical for this time of	fyear? Yes <u>X</u> N	o (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? A	re "Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology naturally		f needed, explain any answer	
SUMMARY OF FINDINGS – Attach site map showi	ng sampling poir	nt locations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes 🗶 No	Is the Samp within a We	v.	No
Hydric Soil Present? Yes X No			
Wetland Hydrology Present? Yes X No		nal Wetland Site ID: Wetland	
Remarks: (Explain allernative procedures here or in a separate re - located between a chive failway on a	port.)	Grushal Store and	an activa
- located between active railway on a	TRISCO DO O		
Soy wop / Hilled Soils		1:	1
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	ly)	X Surface Soil	Cracks (B6)
	ed Leaves (B9)	🔏 Drainage Pat	
🔀 High Water Table (A2) 🔀 Aquatic Fau		Moss Trim Li	
Saturation (A3) Mari Deposi	its (B15)	Dry-Season \	Nater Table (C2)
	ulfide Odor (C1)	🗶 Crayfish Burr	ows (C8)
	nizospheres on Living F		sible on Aerial Imagery (C9)
	f Reduced Iron (C4)	-	ressed Plants (D1)
	Reduction in Tilled So		
	Surface (C7)	Shallow Aqui	
Inundation Visible on Aerial Imagery (B7) Other (Expl	ain in Remarks)		phic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral	lest (D5)
Field Observations:	16"		
Surface Water Present? Yes X No Depth (incl	nes) 1		, 1
Water Table Present? Yes 🗶 No Depth (incl	nes) 54(4x2-0	San an air a ru san sa	
Saturation Present? Yes 🗶 No Depth (incl (includes capillary fringe)	hes):Sultre	Wetland Hydrology Presen	t? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial pl	hotos, previous inspec	tions), if available:	
Dimension	<u>.</u>		
Remarks.			
			× ]
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VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: \_\_\_\_\_)

Number of Dominant Species 1. That Are OBL, FACW, or FAC: (A) **Total Number of Dominant** Species Across All Strata: (B) 3 620 Percent of Dominant Species (A/B)That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: 7. \_\_\_\_\_ = Total Cover OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_ FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_ Sapling/Shrub Stratum (Plot size: \_\_\_\_\_ \_\_\_\_) FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_ 1. FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_ UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_ 3.\_\_\_\_\_ Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B) \_\_\_\_\_ 4. Prevalence Index = B/A = Ś.\_\_\_\_\_ \_\_\_\_ Hydrophytic Vegetation Indicators: 6 1 - Rapid Test for Hydrophytic Vegetation 🖌 2 - Dominance Test is >50% = Total Cover 3 - Prevalence Index is ≤3.0<sup>5</sup> Herb Stratum (Plot size: 10 3 \_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting ypha lattific 651 data in Remarks or on a separate sheet) 30% Problematic Hydrophytic Vegetation (Explain) EALW alix SO. D₽l 20% Scieps Atrovicus Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 15% κĺ 14 Come amonum suplings 30% Pos **Definitions of Vegetation Strata:** FACU FAUL 20% Trifolium pratine N 6. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height, IS7. FΆ Apolynum Canabium N 7. 101 UPL Sapling/shrub - Woody plants less than 3 in. DBH Archien major 8. and greater than or equal to: 3.28 ft (1 m) tall. 9, Herb - All herbaceous (non-woody) plants, regardless of 10. \_\_\_\_\_ size, and woody plants less than 3.28 ft tall. 11. Woody vines - All woody vines greater than 3.28 ft in 12. height. 205 = Total Cover Woody Vine Stratum (Plot size: \_\_\_\_\_ ) 1. Hydrophytic 2. · ····· Vegetation Yes X No Present? 3. .. 4 = Total Cover Remarks: (Include photo numbers here or on a separate sheet.) - Pockets of Open water with duckweed.

Absolute Dominant Indicator

<u>% Cover Species?</u> Status

Dominance Test worksheet:

US Army Corps of Engineers

1.

2.

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Profile Desc	ription: (Describe	to the de	oth needed to docur	nent the i	ndicator	or confirm	the absence	of indicat	ors.)		
Depth	Matrix		Redo	x Features	<u>-</u> 1	, 7	- ·		- ·		
(inches)	$\frac{\text{Color (moist)}}{101\text{k}^{3/2}}$	<u>%</u>	<u>Color (moist)</u> 54R4/6	<u>%</u>		<u>Loc<sup>2</sup></u>	<u>Texture</u>	1	Remarks	n. 14	
0.6"		100	STR YB	30	$\underline{C}$	<u>TL</u>	Clay-loom/	Mack	-Redox W/	1- +115+ b	
6-20+	101R 3/2	00						-Man	-mode fin	ture	
: 	<u> </u>							<u>.                                    </u>			
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			·		<u>,</u>	<u></u>	· <u> </u>	<u></u> ,		<u> </u>	
<sup>1</sup> Type: C=Co Hydric Soil I		letion, RM	I=Reduced Matrix, M	S=Masked	Sand Gr	ains.	Location	i: PL≃Pore	Elining, M=Mati Ematic Hydric S	ix. Soils <sup>3</sup> :	
Histosol			Polyvalue Belo	w Surface	(S8) (LRI	R.			(LRR K, L, ML		
	pipedon (A2)		MLRA 149B	)		~	Coast	Prairie Red	dox (A16) (LRR	K, L, R)	
Black Hi			Thin Dark Surf:				·	-	t or Peat (S3) (L		
	n Sulfide (A4) I Layers (A5)		Loamy Mucky I			ι, Ļ)	Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)				
	Below Dark Surfac	æ (A <b>1</b> 1)	Depleted Matrix		,		Thin Dark Surface (S9) (LRR K, L)				
	ark Surface (A12)		Redox Dark Su				Iron-Manganèse Massès (F12) (LRR K, L, R)				
	lucky Mineral (S1) leved Matrix (S4)		Depleted Dark		-7)		Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
	edox (S5)		A	nono (r oy				arent Mate		,,	
Stripped	Matrix (S6)								rk Surface (TF1	2)	
Dark Su	rface (S7) (LRR R, I	MLRA 14	)B)				Other	(Explain in	Remarks)		
<sup>a</sup> Indicators of	f hydrophytic vegeta	tion and v	vetland hydrology mu	st be prese	ent, unles	s disturbed	l or problemati	c.			
	Layer (if observed)		1			· · · · ·					
Type:			- N/A							5	
Depth (in	ches):						Hydric Soil	Present?	Yes <u>X</u>	No	
Remarks:							· ···				
									<i>r</i>		
			·						x		
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WETLAND DETERM	INATION DATA FOI	RM – Northcentral		. 1
Project/Site: Timber Road III Wind F	arm City/	county: Paulding	County	Sampling Date: 9/22/15
Applicant/Owner: <u>EDPR</u>	Øxy.			Sampling Point: UQWJC
Investigator(s): <u>C. Liddell, R. Farchior</u>		ion Townshin Range		
Landform (hillslope, terrace, etc.): Tillo / flat	10548.00 Local re	lief (conceve, convex n/	ma) flat.	Slope (%)
			-84.7508	
Subregion (LRR or MLRA): MLRA 99	· · · ·			
Soil Map Unit Name: 1444 - Heytville				•
Are climatic / hydrologic conditions on the site typi				
Are Vegetation, Soil, or Hydrology	2 C			resent? Yes 🔽 🔤 No 💆 📃
Are Vegetation 🔀 , Soil 🗶 , or Hydrology	K naturally problem	atic? (If needed,	explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach sit	te map showing sa	mpling point locat	ons, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes _	6	is the Sampled Area		$\sim$
	<b>k</b>	within a Wetland?	Yes	
Wetland Hydrology Present? Yes	<b>F</b> - <b>N</b>	If yes, optional Wetlar	nd Site ID: Act IV C	Ag. land - Soy.
Remarks: (Explain alternative procedures here of Till W / Sof Kow Crop				
HYDROLOGY	· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·
Wetland Hydrology Indicators:	· · · · · · · · · · · · · · · · · · ·	•		tors (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)		Surface Soil	
Surface Water (A1)	Water-Stained Leav	es (B9)	Drainage Pat	
High Water Table (A2)	Aquatic Fauna (B13		Moss Trim Li	
Saturation (A3)	Marl Deposits (B15)			Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide O		Crayfish Bur	
Sediment Deposits (B2)	Presence of Reduce	res on Living Roots (C3		sible on Aerial Imagery (C9) tressed Plants (D1)
Drift Deposits (B3)     Algal Mat or Crust (B4)		ion in Tilled Soils (C6)		Position (D2)
I Iron Deposits (B5)	Thin Muck Surface		Shallow Aqu	
Inch Deposits (Bo) Inundation Visible on Aerial Imagery (B7)	Other (Explain in Re			aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral	
Field Observations:	·····			<u> </u>
Surface Water Present? Yes No	X Depth (inches):	1		
Water Table Present? Yes No				$\sim$
	X Depth (inches):	Wetland	I Hydrology Preser	nt? Yes (No´)
(includes capillary fringe) Describe Recorded Data (stream gauge, monito	ning well, aerial photos, p	revious inspections), if a	vailable:	
	and non contraction procest p			
· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·
Remarks				

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VEGETATION - Use scientific n	ames of plants.
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Sampling Point: WOWAC

Tree Stratum (Plot size: \_\_\_\_\_ Dominance Test worksheet: % Cover Species? Status \_) Number of Dominant Species \_\_\_\_ 1.\_ That Are OBL, FACW, or FAC. (A) 2.\_\_\_\_\_\_ Total Number of Dominant Species Across All Strata: (B) 3. \_\_\_\_\_ Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)5. 6.\_\_\_\_\_ \_\_\_\_\_ Prevalence index worksheet: Total % Cover of: Multiply by: = Total Cover OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_ FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_ Sapling/Shrub Stratum (Plot size:\_\_\_\_\_) FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_ 1 \_\_\_\_\_ FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_ UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_ 3.\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B): Prevalence Index = B/A = > 3 5. Hydrophytic Vegetation Indicators: \_\_\_\_\_ 6. N 1 - Rapid Test for Hydrophytic Vegetation <u>.√</u> 2 - Dominance Test is >50% \_ = Total Cover N 3 - Prevalence Index is ≤3.01 Herb Stratum (Plot size: 15 4 √ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting vPl901 Olycin max data in Remarks or on a separate sheet) 107 υPI Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Arction major 2 107 N FA Cilsium Sa Indicators of hydric soil and wetland hydrology must \_\_\_\_\_ 57. be present, unless disturbed or problematic. N Pourse. FALU 4. Definitions of Vegetation Strata: 5. \_\_\_\_ \_ · \_\_\_\_\_ Tree - Woody plants 3 in. (7.6 cm) or more in diameter 6... at breast height (DBH), regardless of height. 7. Sapling/shrub - Woody plants less than 3 in. DBH \_\_\_\_\_ 8.\_\_\_\_ and greater than or equal to 3.28 ft (1 m) tall. 9 Herb - All herbaceous (non-woody) plants, regardless of \_\_\_\_ 10. size, and woody plants less than 3.28 ft tall. 11.\_\_\_\_ Woody vines - All woody vines greater than 3.28 ft in \_\_\_\_\_ 12. height. 15 = Total Cover Woody Vine Stratum (Plot size: \_\_\_\_\_ ) · 1. Hydrophytic 2. \_\_\_\_\_ \_\_\_\_ Vegetation Present? Yes\_ \_\_\_\_\_\_ 3. = Total Cover Remarks: (Include photo numbers here or on a separate sheet.)

Absolute Dominant Indicator

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					x #¥ - 1			finilestere l
		to the de	oth needed to docu			or contirn	n the absence (	A mulcators.)
Depth	Matrix	<u>_</u>		ox Feature %	<u>s</u> _Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
(inches)	Color (moist)	<u>%</u>	Color (moist)	70	_түре	<u></u>		
<u>0 - 10<sup>6</sup></u>	1012312	[00]			· ····		<u> </u>	
10"-16+	1018312	100	7.5425/8	15	<u> </u>	_ <u>M</u>	CI-Lo	
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	<u>,</u>		<u></u>					
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		pletion, Ri	M=Reduced Matrix, N	/IS=Maske	d Sand Gi	ains.		PL=Pore Lining, M=Matrix
Hydric Soil	Indicators:							for Problematic Hydric Soils <sup>1</sup> :
Histosol	· ·		Polyvalue Bel		e (S8) (LR	RR,		luck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149	,		1 23 4 4 4 0		Prairie Redox (A16) (LRR K, L, R) lucky Peat or Peat (S3) (LRR K, L, R)
	istic (A3)		Thin Dark Sur Loamy Mucky					urface (S7) (LRR K, L, M)
	en Sulfide (A4) d Layers (A5)		Loamy Gleyer			<b>v</b> y <b>-</b> 7		ue Below Surface (S8) (LRR K, L)
	d Below Dark Surfa	ce (A11)	Depleted Mat		-,			ark Surface (S9) (LRR K, L)
	ark Surface (A12)	( ,	Redox Dark S		5)			anganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Darl	k Surface (	(F7)			ont Floodplain Soils (F19) (MLRA 149B)
Sandy C	Gleyed Matrix (S4)		Redox Depre	ssions (F8	)			Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)		i					arent Material (F21)
	d Matrix (S6)		6D)					hallow Dark Surface (TF12) (Explain in Remarks)
Dark SL	urface (S7) (LRR R	, MLRA 14	an)					(exhight in trenderies)
<sup>3</sup> Indicators a	of Bydronbytic Vede	tation and	wetland hydrology m	ust be ore:	sent, unles	s disturbe	ed or problematio	3.
	Layer (if observed		nearing therefold an					· · · · · · · · · · · · · · · · · · ·
Type:	and a fir and a set	-4.	erts.					
Depth (ir	iches)		- N/A				Hydric Soil	Present? Yes No V
			·					
Remarks:	-Tilled ag	4.14						
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Name: Lonnor Loddel Date: Affiliation: Jesgn + Research vivaa mentat Address: St. Syracuse, NY 13202 Ŋ Montgomery Phone Number: 315 471.0688 e-mail address; chiddella editate.com Name of Wetland: Wetland ( Vegetation Communit(ies): Envergent with land I Serve Shrub HGM Class(es): Location of Wetland: Include map, address, north arrow, landmarks, distances, roads, etc. TN Railwad wetland field (oad - Route 613 Lat/Long or UTM Coordinate -84.7568 41.0795 USGS Quad Name Payne, OH County Paulding Township Harrison Section and Subsection TIN RIE Hydrologic Unit Code 04100007 Site Visit Ś 92 2015 National Wetland Inventory Map Ohio Wetland Inventory Map \_\_\_\_ Soil Survey VES Delineation report/map <u> 465</u>

## **Background Information**

### Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is 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 "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous 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. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, 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 patchwork on the landscape, wetlands divided by artificial boundaries 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 Ohio EPA, Divísion of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	V	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human- induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	V.	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	V	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., 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 boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		

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

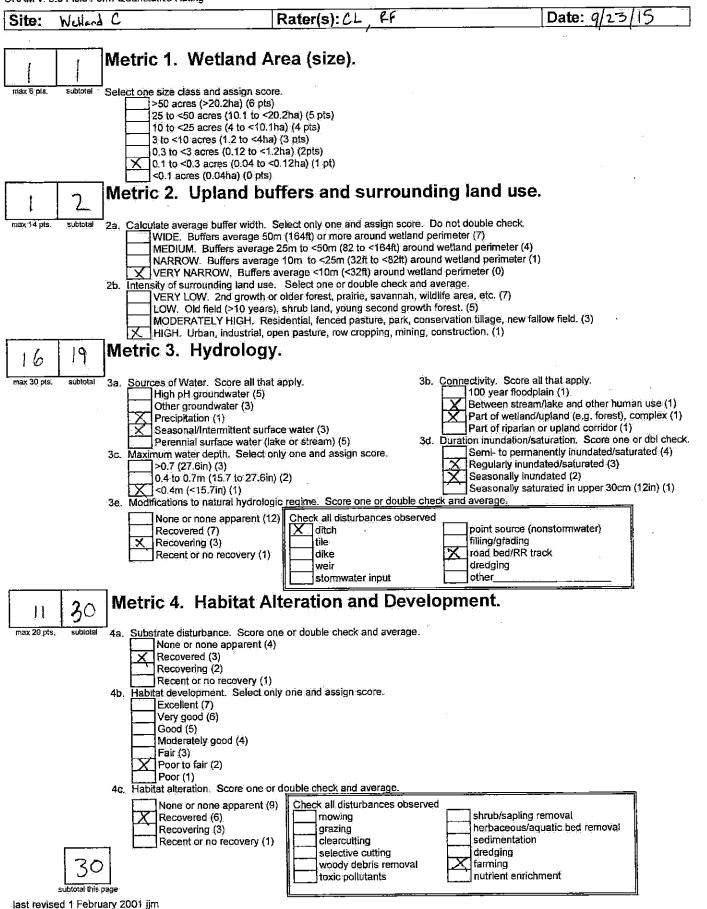
8b	Mature forested wetlands. Is the welland a forested wetland with	YES	(NO)
	50% or more of the cover of upper forest canopy consisting of		
	deciduous trees with large diameters at breast height (dbh), generally	Wetland should be	Go to Question 9a
	diameters greater than 45cm (17.7in) dbh?	evaluated for possible	,
		Category 3 status.	
	· · · · · · · · · · · · · · · · · · ·	Go to Question 9a	$\sim$
a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
	an elevation less than 575 feet on the USGS map, adjacent to this		
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
b	Does the wetland's hydrology result from measures designed to	YES	NO
	prevent erosion and the loss of aquatic plants, i.e. the welland is	Wetland should be	Go to Question 9c
	partially hydrologically restricted from Lake Erie due to lakeward or	evaluated for possible	GO ID QUESTION SC
	landward dikes or other hydrological controls?	Category 3 status	
		Category 5 Status	
		Go to Question 10	
C.	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO.
	i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an	Go to Question 9d	Go to Question 10
	"estuarine" wetland with lake and river influenced hydrology. These	Go in discaso jou	
	include sandbar deposition wetlands, estuarine wetlands, river mouth		
	wetlands, or those dominated by submersed aquatic vegetation.		
bq	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant		
	native species can also be present?	Wetland is a Category	Go to Question 9e
		3 wetland	
		Go to Question 10	
)e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?		
		Wetland should be	Go to Question 10
		evaluated for possible	
		Category 3 status	
		Go to Question 10	
0	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be	Wotland to a Datagen	Go to Question 11
	characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within	Wetland is a Category 3 wetland.	
	several inches of the surface, and often with a dominance of the	o netialia.	
	gramineous vegetation listed in Table 1 (woody species may also be	Go to Question 11	
	present). The Ohio Department of Natural Resources Division of		
	Natural Areas and Preserves can provide assistance in confirming this	Į	
	type of wetland and its quality.		
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YE\$	(NO)
	dominated by some or all of the species in Table 1. Extensive prairies		
	were formerly located in the Darby Plains (Madison and Union	Wetland should be	Complete
	Counties), Sandusky Plains (Wyandot, Crawford, and Marion	evaluated for possible	Quantitative
	Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Category 3 status	Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Complete Quantitative	
	Montgomery, Van Wert etc.).		
		Rating	

<sup>1</sup> Source and a spectrum of the formula of the spectrum of

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ORAM v. 5.0 Field Form Quantitative Rating Rater(s): CL/KF Date: 9 Site: Willer 30 subtolal first pag Metric 5. Special Wetlands. 10 20 max 10 pts. sublotat Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. 25 5 Vegetation Community Cover Scale max 20 pts, 6a, Wetland Vegetation Communities. subtola Absent or comprises <0.1ha (0.2471 acres) contiguous area Score all present using 0 to 3 scale. n Present and either comprises small part of wetland's Aquatic bed ð vegetation and is of moderate quality, or comprises a Emergent 2 significant part but is of low quality Q. Shrub Present and either comprises significant part of wetland's 2 Forest vegetation and is of moderate quality or comprises a small 6 Mudflats part and is of high quality 0 Open water × Other Willard Scap in Ay field. Present and comprises significant part, or more, of wetland's 3 vegetation and is of high quality 6b. horizontal (plan view) Interspersion. Select only one. Narrative Description of Vegetation Quality High (5) Low spp diversity and/or predominance of nonnative or Moderately high(4) low disturbance tolerant native species Moderate (3) Native spp are dominant component of the vegetation, Moderately low (2) mod although nonnative and/or disturbance tolerant native spp Low (1) Į X can also be present, and species diversity moderate to None (0) moderately high, but generally w/o presence of rare 6c. Coverage of invasive plants. Refer threatened or endangered spp to Table 1 ORAM long form for list. Add.

or deduct points for coverage Extensive >75% cover (-5)

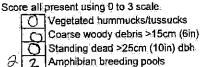
 Moderate 25-75% cover (-3)

 Sparse 5-25% cover (-1)

 Nearly absent <5% cover (0)</td>

 Absent (1)

6d. Microtopography.



## Microtopography Cover Scale

Mudflat and Open Water Class Quality

Absent <0.1ha (0.247 acres)

Low 0.1 to <1ha (0.247 to 2.47 acres)

Moderate 1 to <4ha (2,47 to 9.88 acres) High 4ha (9,88 acres) or more

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

A predominance of native species, with nonnative spp

and/or disturbance tolerant native spp absent or virtually

absent, and high spp diversity and often, but not always,

the presence of rare, threatened, or endangered spp

End of Quantitative Rating. Complete Categorization Worksheets.

high

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an 1920 - Eisse Charles Mitheastaile e

	· · · · · · · · · · · · · · · · · · ·	circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3,
x	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
- - -	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size		
ariang	Metric 2. Buffers and surrounding land use	Í	
	Metric 3. Hydrology	6	
	Metric 4. Habitat	11.	
	Metric 5. Special Wetland Communities	-10	
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	25	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

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	ELOCATION DEC		
	DF STREAM REACH (11) 25044 122/15 scorer CL / P	LAT. <u>41.6796</u> LONG. <u>-84.750</u> PRIVER CODE RIVER MILE 2F comments	<u>.                                    </u>
		m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruc	tions
연합하였다.	I CHANNEL	TURAL CHANNEL 🔄 RECOVERED 🕺 RECOVERING 🛄 RECENT OR NO RECOV	'ERY
2011-19-11-1			
(A)	Max of 40). Add total number of significa	ery type of substrate present. Check O/LY two predominant substrate TYPE boxes ant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI Metric
	BLDR SLABS [16 pts]		Points
ōō	BOULDER (>256 mm) [16 pts] BEDROCK [15 pt]		Substrat Max = 4
	COBBLE (65-256 mm) [12 pts] GRAVEL (2 64 mm) [9 pts]	$ \begin{array}{c c} \hline \hline \\ $	7
00	SAND (<2 mm) [6 pts]	[] [6] ARTIFICIAL [3 pts]	 Texat
	Total of Percentages of Idr Slabs, Boulder, Cobble, Bedrock		A + B
	F TWO MOST PREDOMINATE SUBS		
e e		iaximum pool depth within the 61 meter (200 ft) evaluation reach at the time of 1 F	Pool Dep
<b>X</b> 5	- in a state of the second	d culverts or storm water pipes) (Check ONLY one box):	
<u> </u>	30 centimeters [20 pts] 22.5 - 30 cm [30 pts]	d culverts or storm water pipes} (Check DNLY one box): □ > 5 cm - 10 cm [15 pts] □ < 5 cm [5 pts] 42.	
	30 centimeters [20 pts] 22 5 - 30 cm [30 pts] 10 - 22 5 cm [25 pts]	ad culverts or storm water pipes)       (Check ONLY one box):         > 5 cm - 10 cm [15 pts]         < 5 cm [5 pts]	Max = 3
	30 centimeters [20 pts] 22 5 - 30 cm [30 pts] 10 - 22 5 cm [25 pts] :OMMENTS	Ad culverts or storm water pipes) (Check ONLY one box): Scrn - 10 cm [15 pts] Scrn [5 pts] NO WATER OR MOIST CHANNEL [0 pts] MAXIMUM POOL DEFTH (centimeters):	Max = 3 2_0
	30 centimeters [20 pts] 22.5 - 30 cm [30 pts] 10 - 22.5 cm [25 pts] :OMMENTS ANK FULL WIDTH (Measured as the 4.0 meters (> 13) [30 pts]	ad culverts or storm water pipes)       (Check ONLY one box):         > 5 cm - 10 cm [15 pts]         < 5 cm [5 pts]	Max = 3 2.0 Bankful Width
	30 centimeters [20 pts] 22.5 - 30 cm [30 pts] 10 - 22.5 cm [25 pts] :OMMENTS ANK FULL WIDTH (Measured as the	ad culverts or storm water pipes)       (Check ONLY one box):         > 5 cm - 10 cm [15 pts]         < 5 cm [5 pts]         42_         NO WATER OR MOIST CHANNEL [0 pts]         MAXIMUM POOL DEPTH (centimeters):         average of 3-4 measurements)         (Check ONLY one box):         > 1.0 m - 1.5 m (> 3.3" - 4.8") [15 pts]         ≤ 1.0 m (≤ 3.3") [5 pts]	Max = 3 2.0 Bankfu Width
	30 centimeters [20 pts] 22.5 = 30 cm [30 pts] 10 - 22.5 cm [25 pts] :OMMENTS ANK FULL WIDTH (Measured as the 40 meters (> 13') [30 pts] 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 1.5 m - 3.0 m (> 4' 6" - 9' 7") [20 pts]	ad culverts or storm water pipes)       (Check ONLY one box):         > 5 cm - 10 cm [15 pts]         < 5 cm [5 pts]	Max = 3 2.0 Bankful
	30 centimeters [20 pts] 22.5 - 30 cm [30 pts] 10 - 22.5 cm [25 pts] COMMENTS CANK FULL WIDTH (Measured as the 40 meters (> 13) [30 pts] 30 m - 4.0 m (> 9' 7" - 13') [25 pts] 1,5 m - 3.0 m (> 4' 6" - 9' 7") [20 pts] COMMENTS	AVERAGE BANKFULL WIDTH (meters)  Check ONLY one box):  Som - 10 cm [15 pts]  Som - 15 m (> 3 3" - 4 8") [15 pts]  AVERAGE BANKFULL WIDTH (meters)  This Information must also be completed	Max = 3 2.0 Bankfu Width
	30 centimeters [20 pts] 22 5 = 30 cm [30 pts] 10 - 22 5 cm [25 pts] 30 MM ENTS 30 MM ENTS 30 m - 4.0 m (> 9' 7" - 13') [25 pts] 1,5 m - 3.0 m (> 4' 6" - 9' 7") [20 pts] 30 MM ENTS RIPARIAN ZONE AND FLOODF <u>RIPARIAN WIDTH</u>	Average of 3-4 measurements) (Check ONLY one box): MAXIMUM POOL DEPTH (centimeters): Average of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3 3" - 4 8") [15 pts] AVERAGE BANKFULL WIDTH (meters) AVERAGE BANKFULL WIDTH (meters) This Information must also be completed PLAIN QUALITY CONTER River Left (L) and Right (R) as looking downstream of the flood plain (R	Max = 3 2.0 Bankfu Width
	30 centimeters [20 pts] 22.5 = 30 cm [30 pts] 10 - 22.5 cm [25 pts] COMMENTS COMMENTS CANK FULL WIDTH (Measured as the 4.0 meters (> 13) [30 pts] 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 1.5 m - 3.0 m (> 4' 6" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODF	average of 3-4 measurements)       (Check ONLY one box):         Average of 3-4 measurements       (Check ONLY one box):         Average of 3-4 measurements       (Check ONLY one box):         Average of 3-4 measurements       (Check ONLY one box):         Average of 3-4 mea	Max = 3 2.0 Bankfu Width
	30 centimeters [20 pts] 22 5 - 30 cm [30 pts] 10 - 22 5 cm [25 pts] 30 MMENTS 30 MMENTS 30 m - 40 m (> 9' 7" - 13') [25 pts] 15 m - 3.0 m (> 4' 6" - 9' 7") [20 pts] 30 MMENTS RIPARIAN ZONE AND FLOODF RIPARIAN WIDTH L R (Per Bank)	Add culverts or storm water pipes)       (Check ONLY one box):         > 5 cm - 10 cm [15 pts]       42.         > 5 cm [5 pts]       42.         NO: WATER OR MOIST CHANNEL [0 pts]       40.         MAXIMUM POOL DEPTH (centimeters):       42.         MAXIMUM POOL DEPTH (centimeters):       42.         Average of 3-4 measurements)       (Check ONLY one box):         > 1.0 m - 1.5 m (> 3.3" - 4.8") [15 pts]       2.25         Average bankfull width (       3.25         Average bankfull width (       3.25         Average bankfull width (       3.2	Max = 3 2.0 Bankfu Width
	30 centimeters [20 pts] 22 5 - 30 cm [30 pts] 10 - 22 5 cm [25 pts] 30 MM ENTS 30 MM ENTS 30 m - 4.0 m (> 9' 7" - 13') [25 pts] 1,5 m - 3.0 m (> 4' 6" - 9' 7") [20 pts] 30 MM ENTS RIPARIAN ZONE AND FLOODF RIPARIAN WIDTH L R (Per Bank) ↓ Wide > 10m ↓ Wide > 10m ↓ Wide > 10m	ad culverts or storm water pipes)       (Check ONLY one box):         > Signi-10 cm [15 pts]         < Scm [5 pts]	Max = 3 2.0 Bankfu Width
	30 centimeters [20 pts] 22 5 - 30 cm [30 pts] 10 - 22 5 cm [25 pts] 30 MMENTS 30 MMENTS 30 m - 40 m (> 9' 7" - 13') [25 pts] 15 m - 3.0 m (> 4' 6" - 9' 7") [20 pts] 30 MMENTS RIPARIAN ZONE AND FLOODF RIPARIAN WIDTH L R (Per Bank) J Wide >10 m 30 Moderate 5-10 m	Indicative is or storm water pipes)       (Check ONLY one box):         > Signi-10 cm [15 pts]         < Signi-10 cm [15 pts]	Max = 3 2.0 Bankful Wighth
	30 centimeters [20 pts]         22 5 = 30 cm [30 pts]         10 - 22.5 cm [25 pts]         SOMMENTS         ANK FULL WIDTH (Measured as the 40 meters (> 13') [30 pts]         ANK FULL WIDTH (Measured as the 40 meters (> 13') [30 pts]         SOMMENTS         ANK FULL WIDTH (Measured as the 40 meters (> 13') [30 pts]         SOMMENTS         ANK FULL WIDTH (Measured as the 40 meters (> 13') [25 pts]         SOMMENTS         RIPARIAN ZONE AND FLOODF RIPARIAN WIDTH         L       R       (Per Bank)         D       Wide >10m         D       Wide >10m         D       Moderate 5-10m         D       None COMMENTS         COMMENTS       Railway         FLOW REGIME (At Time of Eve	average of 3-4 measurements)       (Check ONLY one box):         Average of 3-4 measurements)       (Check ONLY one box):         > 1.0 m       -1.5 m (> 3.3", 4.8") [15 pts]         2 sign (≤ 3.3") [5 pts]       2.25         Average of 3-4 measurements)       (Check ONLY one box):         > 1.0 m       -1.5 m (> 3.3", 4.8") [15 pts]         2 sign (≤ 3.3") [5 pts]       2.25         Average BankFull WIDTH (meters)       2.25         Bank (= 1.0 m (≤ 3.3") [5 pts]       2.25         Bank (= 1.0 m (≤ 3.3") [5 pts]       2.25         Bank (= 1.0 m (≤ 3.3") [5 pts]       2.25         Bank (= 1.0 m (≤ 3.3") [5 pts]       2.25         Bank (= 1.0 m (≤ 3.3") [5 pts]       2.25         Bank (= 1.0 m (≤ 3.3") [5 pts]       2.25         Bank (= 1.0 m (≤ 3.5") [15 pts]       2.25         Bank (= 1.0 m (≤ 3.5") [15 pts]       2.25         Bank (= 1.0 m (≤ 3.5") [15 pts]       2.25         Bank (= 1.0 m (≤ 3.5") [15 pts]       2.25         Bank (= 1.0 m (≤ 1.0 m	Max = 3 2.0 Bankful Wighth
	30 centimeters [20 pts] 22.5 = 30 cm [30 pts] 10 - 22.5 cm [25 pts] 30 m ENTS ANK FULL WIDTH (Measured as the 40 meters (> 13') [30 pts] 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0 m - 4.0 m (> 4' 8' - 9' 7'') [20 pts] 3.0	Indicative storm water pipes)       (Check ONLY one box):         > 5 cm - 10 cm [15 pts]         < 5 cm [5 pts]	Max = 3 2.0 Bankfu Width
	30 centimeters [20 pts]         22.5 = 30 cm [30 pts]         10 - 22.5 cm [25 pts]         COMMENTS	Induced collects or storm water pipes)       (Check ONLY one box):         > 5 cm 10 cm [15 pts]       42.         S cm [5 pts]       42.         NO WATER OR MOIST CHANNEL [0 pts]       42.         MAXIMUM POOL DEPTH (centimeters):       42.         MAXIMUM POOL DEPTH (centimeters):       2.25         S 1.0 m - 1.5 m (> 3.3" - 4.8") [15 pts]       2.25         AVERAGE BANKFULL WIDTH (meters)       2.25         MAXIMUM POOL DEPTH (centimeters):       2.25         AVERAGE BANKFULL WIDTH (meters)       2.25         MAXIMUM POOL DEPTH (centimeters):       2.25         AVERAGE BANKFULL WIDTH (meters)       2.25         Mature Forest, Simpleted       2.25         PLAIN QUALITY       2.000         1 R       (Most Predominant per Bank)       L R         1 Mature Forest, Wetland       1 Conservation Tillage         1 Immature Forest, Shrub or Old       2 Immature, Row Crop         1 Residential, Park, New Field       2 Immature, Row Crop         2 Residential, Park, New Field       2 Immature, Row Crop         3 Field       3 Immature forest):       Moist Channel, isolated pools, no flow (Intermittent)	Max = 3 2.0 Bankfu Width

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PHWH Form Page - 1

· · · · · · · · · · · · · · · · · · ·	(This Information Must Also be Completed);
	s 😡 No QHEI Score (If Yes, Atlach Completed QHEI Form)
	Distance from Evaluated Stream
	Distance from Evaluated Stream Distance from Evaluated Stream
	DF MAPS, INCLUDING THE ENTIRE WATERSHED AREA: CLEARLY MARK THE SITE LOCATION
	NRCS Soil Map Page; NRCS Soil Map Stream Order
	Township/City_Harrisan
Ĵ	
MISCELLANEOUS	Date of last precipitation: 9/19/15 Quantity:
Photograph Information:	
Elevated Turbidity? (Y/N): <u>PN</u>	
	stry? (Y/N): N (Noté lab sample no. or id. and attach results) Lab Number: X
	Dissolved Oxygen (mg/) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of th	he stream (Y/N) Y If not, please explain:
ID numbe Fish Observed? (Y/N) Voucher	Record all observations. Voucher collections optional. NOTE: all voucher samples must be tabeled with the er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) (? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology.	
Comments Regarding Biology:	- <u></u>
DRAWING AND NAR	RRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
DRAWING AND NAR	
DRAWING AND NAR Include important landmarks an	d other features of interest for site evaluation and a narrative description of the stream's location
DRAWING AND NAR	d other features of Interest for site evaluation and a narrative description of the stream's location
DRAWING AND NAR Include important landmarks an Railway fill/ Kailway fill/ Kailway fill/ Kailway fill/	d other features of Interest for site evaluation and a narrative description of the stream's location is the stream's loc
DRAWING AND NAR Include important landmarks an	d other features of interest for site evaluation and a narrative description of the stream's location

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	ATION <u>T. MER</u>	R. III S	P-GIS		
LENGTH OF ST	SITE NUMBER [1]	2 <u>3 . [</u> ] RIVER BAS AT. <u>41. 0174</u> LONG	IN MOUNCE Rich		
	<u>115</u> SCORER <u>CL/RF</u> Diete All Items On This Form	COMMENTS	ustion Manual for Ol	hiolo BUMP Strooms	for Instruction
STREAM CH		sectored and a magnetic feature of the South PT SQL 20	n an		
MODIFICATI					
1. SUBST	RATE (Estimate percent of every	type of substrate press	ent. Check ONLY <u>two</u> pri	edominant substrale TYP	Eboxes B HE
TYPE		I SUDSITATE TYPES TOURD (1 RCENT TYPE		perci	640
ПП во	)R SLABS [16 pts] JLDER (>256 mm) [16 pts]		SILT [3 pt] LEAF PACKANOODY D		
ليحتجز والمستعلم والمستعل	DROCK. [16 pt] BBLE (65-256 mm) [12 pts]		FINE DETRITUS [3 pt: CLAY or HARDPAN [0	Terreta Transfer Tra	イー パー パー Max
	AVEL (2-64 mm) <b>[9 pts]</b>		MUCK [0 pts] ARTIFICIAL [3 pts]	<u>10</u>	
	VD (<2 mm) [6 pts]	(A)	AKTIFICIAL (Spits)		
Bldr Sl	bian of Heicemages of bs. Boulder, Cobble, Bedrock DIMOST PREDOMINATE SUBSTR	2 31		OF SUBSTRATE TYPES	31
	um Pool Depth (Measure the max				<u> </u>
evalua	ion. Avoid plunge pools from road ( timeters [20 pts]	culverts or storm water pi	pes) (Check ONLY on > 5 cm - 10 cm [15 pb	e box).	Maj
22.5	30 cm [30 pts] 2.5 cm [25 pts]	Ā.	< 5 cm [5 pts] NO WATER OR MOIS		2
COMM		<u></u>		DL DEPTH (centimeters)	
	FULL WIDTH (Measured as the a	verage of 3-4 measurer		ONLY one box):	Ba
🔲 > 4,0 m	ders (> 13') [30 pts] - 4.0 m (> 9' 7'- 13') [25 pts]		> 1.0 m + 1.5 m (> 3'3' ≤ 1.0 m (≤ 3'3') [5 phs		W Ma
	- 3.0 m (> 4' 8"-9' 7") [20 pts]		•		172
COMN	ENTS Mainthined Kone	dside Drainage	AVERAGE BAI	NKFULL WIDTH (meters	) Bernaine
		na an an an tha an an an the the first start and	iust also be completed	ight (R) as looking downs	tree mot
	RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH	FLOODPLAIN QUALIT	<u>Y</u>		Allocati 2
	(Per Bank) Wilde stiller	L R (Most Predo	the second se	L R Conservati	on Tillage
	Wide >10m		rest Shruh or Old	🕅 🔲 Urbani or Ir	الدفيقتين فا
	Moderate 5-10m	D D Immature Fo Field	a cost clinds & circ		
	Moderate 5-10m Narrow <5m	Field <b>C D</b> Residential,	Park, New Field	Crop	ure, Row
	Moderate 5-10m Narrow <5m	Field	Park, New Field	Crop	
00 00 80	Moderate 5-10m Narrow <5m None COMMENTS MOJ., FLOW REGIME (At Time of Evelu	Field Field Fenced Pasi Fenced Pasi Fenced Pasi Fenced Pasi Fenced Pasi Field	Park, New Field ture Ichi ngte Way re box):	C Den Past Crop Crop Mining or C	ure, Row Construction
	Moderate 5-10m Narrow <5m None COMMENTS <u>MOW</u> , FLOW REGIME (At Time of Evelu Stream Flowing Slovy flo Subsurface flow with isolated pools	Pield Pield Penced Pasi Penced Penced Pe	Perk, New Field ture Kningst Wesg ne box): D Moist Channe	Crop	ure, Row
00 00 88	Moderate 5-10m Narrow <5m None COMMENTS <u>MOW</u> , FLOW REGIME (At Time of Evelu Stream Flowing Slove flo	Field Field Residential, Fenced Past A Rend Side Vation) (Check ONLY or S (Interstitial)	Park, New Field ture KAL onge Werg ne box): Moist Channe Dry channel,	Den Past Crop Mining or C it, isolated pools, no flow no water (Ephemeral)	ure, Row Construction

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ume 20, 2008' Revision

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	Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	·····
🗍 WWH Name:	Distance from Evaluated Stream
	Distance from Evaluated Stream
D EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUD	ING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
	NRCS Soil Map Page: NRCS Soil Map Stream Order
county: Paulding	Township/City
Base Flow Conditions? (Y/N): Date of tast precip	itation: 9/19/15 Quantity:
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open	_
	(Note lab sample no. or id, and attach results) Lab Number
· · · · · · · · · · · · · · · · · · ·	(mg/l)pH (S.U.)Conductivity (µmhos/cm)
	Lif not, please explain
Is the sampling reach (epresentative of the stream (1704	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observed ID number. Include approp Eish Observed? (Y/N) Voucher? (Y/N) Sa	ions. Voucher collections optional. NOTE: all voucher samples must be labeled with the site riste field data sheets from the Primary Headwater Habitat Assessment Manual) lamanders Observed? (Y/N) Voucher? (Y/N)
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observed ID number. Include approp Eish Observed? (Y/N) Voucher? (Y/N) Sa	ions. Voucher collections optional. NOTE: all voucher samples must be labeled with the site rigte field data sheets from the Primary Headwater Habitat Assessment Manual) lamanders Observed? (Y/N) Voucher? (Y/N) ) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
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June 20, 2008 Revision

	ELOCATION TIMOCOR	$\alpha \cdot TH_{-} = 4 e \beta 33$
	SITE NUMBER	WET E. RIVER BASIN MUUMLE KHEL DRAINAGE AREA (MP) 03
	0F STREAM REACH (11) 2304 1/23/15 SCORER	24 LAT. 41. 01.98 LONG-84,7478 RIVER CODERIVER MILE
		orm - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction
useu-sii		
	CATIONS:	
		every type of substrate present. Check ONLY two predominant substrate TYPE boxes
1., : (	SUBSTRATE (Estimate percent of Max of 40). Add total number of sign	iticant substrate types found (Max of 8). Final metric score is sum of boxes A & B.
	BLDR SLABS [16 pts]	
	BOULDER (>256 mm) [16 pts] BEDROCK: [16 pt]	
	COBBLE (65-256 mm) [12 pts]	
	GRAVEL (2-84 mm) [9 pts]	
٥D	SAND (<2 mm) [6 pts]	
	Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrool	
	OF TWO MOST PREDOMINATE SU	
<b>Z.</b>	Maximum Pool Depth (Measure the evaluation, Avoid plunge pools from	re maximum pool depth within the 61 meter (200 ff) evaluation reach at the time of road culverts or storm water pipes) (Check ONLY one box):
	30 centimeters [20 pts]	$\bigcup > 5 \text{ cm} \cdot 10 \text{ cm} [15 \text{ pts}]$ $\square < 5 \text{ cm} [5 \text{ pts}]$
<u> </u>	22.5 - 50 cm [35 pts]	NO WATER OR MOIST CHANNEL [0 pts]
	COMMENTS	MAXIMUM POOL DEPTH (centimeters):
		the average of 3-4 measurements) (Check ONLY one box):
র্ 🛛	• 4.0 meters (> 13') [30 pts] • 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	لے 💦 🕺 🕹 🕹 اور دی 🖌 🖸 اور دی
	>1.5 m - 3.0 m (> 4 8° - 9'7') [20 pts	· · · · · · · · · · · · · · · · · · ·
	COMMENTS	AVERAGE BANKFULL WIDTH (meters)
	annan an a	This information must also be completed
	RIPARIAN ZONE AND FLO RIPARIAN WIDTH	FLOODPLAIN QUALITY
	L R (Per Bank)	L R (Most Predominant per Bank) L B Mature Forest, Wetland D D Conservation Tillage
	Moderate 5-10m	Immature Forest, Shub or Old
э		Field Open Pasture, Row
\$		
3	Ø-Ø. Narrow <5m □ □ None	Fenced Pasture     Grop     Grop
3		Crop     Construction     Mining or Construction
\$	None     COMMENTS     FLOW REGIME (At Time of	Grop     Grop     Good Pasture     Good Pasture
	None     COMMENTS      FLOW REGIME (At Time of     Stream Flowing     Subsurface flow with isolated	Fenced Pasture     Grop     Mining or Construction
3	None     COMMENTS      FLOW REGIME (At Time of     Stream Flowing     Subsurface flow with isolated     COMMENTS	Fenced Pasture     Grop     Mining or Construction

June 20, 2008 Revision

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PHWH Form Page - 1

	No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE	
	E(S) Distance from Evaluated Stream
	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAN	PS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name:	NRCS Soll Map Page: NRCS Soil Map Stream Order
county Paulding	Township/City_ Benton Township
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date o	of lest precipitation: 9/19/15 Quality:
· · · · · · · · · · · · · · · · · · ·	
Photograph Information:	979
Elevated Turbidity? (Y/N): Cand	
Were samples collected for water chemistry? (	(Y/N): Note lab sample no. or id, and attach results) Lab Number
Field Measures: Temp (°C) Dissol	olved Oxygen (mg/) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stre	ream (Y/N) / If not, please explain:
	· · · · · · · · · · · · · · · · · · ·
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record [D.number, Inc	d all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the situ clude appropriate field data sheets from the Primary Headwater Habitat Assessment Manual).
Fish Observed? (Y/N) Voucher? (Y/N Frogs or Tadpoles Observed? (Y/N) Vou	N)Salamanders Observed? (Y/N) Voucher? (Y/N) Sucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
	TIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): the features of Interest for site evaluation and a narrative description of the stream's location
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June 20, 2008 Revision

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STREA	: Compi M CHAN FICATIO			NNEL 🕅 F		ecovering E	VH Streams" for Instru I RECENT OR NO RECO	an ei anne e
	(Max of 4 BLDR BOD) BEDF COBE	ATE (Estimate percent of e 0). Add total number of signit 1. SLABS [16 pts] .DER (>256 mm) [16 pts] 20CK [16 pt] 3LE (65-256 mm) [12 pts] /EL (2-64 mm) [9 pts]		e types found	(Max of 8). Final me SILT (3 pt) LEAF PACKWOO FINE DETRITUS CLAY or HARDP/ MUCK [0 pts]	tric score is sum DY DEBRIS (3 p (3 p(s) N (0 pt)	of boxes A & B. <u>PERCENT</u>	HHE Metri Point Substra Max = 2
	Tot Bidr Slab	2 (<2 mm) [6 pts] al of Percentages of s, Boulder, Cobble, Bedrock MOST PREDOMINATE SUB		(A)	ARTIFICIAL [3] pt	s) BER OF SUBST	(B) 2	A+B
	evaluatio > 30 centii > 22.5 - 3	n Pool Depth (Measure the n. Avoid plunge pools from ro melers [20 pts] 0 cm [30 pts] 5 cm [25 pts]	oad culverts of	r slorm water		LY one box): 15 pts]		Pool De Max =
	COMME	NTS		<u> </u>			131	
୍ 🖬 🖉	BANK FI > 4.0 mete > 3.0 m	JLL WIDTH (Measured as ti rs (> 13) [30 pts] 4.0m (> 9' 7'' - 13') [25 pts] 3.0m (> 4' 8'' - 9' 7') [20 pts]			MAXIMUA ements) (C ] > 1.0 m - 1.5 m ( ] ≤ 1.0 m (≤ 3' 3")	1 POOL DEPTH neck ONLY one > 3'3'' - 4'8'') [16	(centimeters): box): pist 3.5,"	Width
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	BANK FI > 4.0 mete > 3.0 m > 1.5 m + COMME	JLL WIDTH (Méasureid as ti rs (> 13) [30 pts] 4.0 m (> 9' 7' - 13') [25 pts] 3.0 m (> 4' 8' - 9' 7'') [20 pts] NTS IPARIAN ZONE AND FLOO	This DPLAIN QUA	f 3-4 measuri	MAXIMUL ments) (Cl ) > 1.0 m - 1.5 m ( ] ≤ 1.0 m (≤ 3'3') AVERAGI Must also be comp OTE: River Left (L)	1 POOL DEPTH neck ONLY one > 3° 3″ - 4′ 8°) [16 [5 pts] E BANKFULL W leted	(centimeters): box): pist 3.5,"	Width
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	BANK FI > 40 mete > 30 m > 1.5 m COMME R L R L R	JLL WIDTH (Méasureid as ti rs (> 13) [30 pts] 4.0 m (> 9' 7' - 13') [25 pts] 3.0 m (> 4' 8'' - 9' 7') [20 pts] NTS IPARIAN ZONE AND FLOO <u>RIPARIAN WIDTH</u> (Per Bank) Wide >10m	This DPLAIN QUA FLOOD L R I I	13-4 measur 111 111 111 111 111 111 111 1	MAXIMUL ments) (Cl > 1.0 m - 1.5 m ( 1 ≤ 1.0 m (≤ 3'3') AVERAGI MUST also be comp NOTE: River Left (L) : <u>ITY</u>	I POOL DEPTH > 3" 3" - 4" 8") [15 [5 pts] E BANKFULL W leted and Right (R) as L R	(centimeters): box): pis] IDTH (meters) Rooking downstream <sup>1</sup> Conservation Tillage	Widt
	BANK FI > 4 0 mede > 3.0 m - > 1.5 m - COMMEI R R L R L R Ω Ω	JLL WIDTH (Méasureid as ti rs (> 13) [30 pts] 4.0 m (> 9' 7' - 13') [25 pts] 3.0 m (> 4' 8' - 9' 7') [20 pts] NTS IPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m	This DPLAIN QUA FLOOD L R I I I I	13-4 measuri	MAXIMUL ments) (Cl > 1.0 m - 1.5 m ( 1 ≤ 1.0 m (≤ 3' 3') AVERAGI MUST also be comp NOTE: River Left (L) : <u>ITY</u> Iominant per Bank) rest, Wetland Forest; Shrub or Old	L POOL DEPTH neck ONLY one > 3' 3'' -4' 8'') [15 [5 pts] E BANKFULL W leted and Right (R) as L R  L R       	(centimeters):	Widt
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	BANK FI >40 mete >30 m >15 m COMME COM COMME COM COM COM COM COM COM COM COM C	JLL WIDTH (Measured as ti rs (> 13) [30 pts] 4.0 m (> 9' 7' - 13') [25 pts] 3.0 m (> 4' 8' - 9' 7') [20 pts] NTS IPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS LOW REGIME (At Time of E ream Flowing ubsurface flow with isolated p COMMENTS SINUOSITY (Number of bend one	This DPLAIN QUA FLOOD L R I I I I I I Sveluation) (( pools (Interstit	(3-4 measure (3-4 measure (1) (1) (1) (1) (1) (1) (1) (1)	MAXIMUM meints) (Cl > 1.0 m - 1.6 m ( ) < 1.0 m (< 3'3") AVERAGI must also be comp NOTE: River Left (L): ITY Iominant per Bank) rest, Wetland Forest; Shrub or Old i, Park, New Field isture: One box): Moist Ch Dry char	I POOL DEPTH neck ONLY one > 3 3"-4' 8") [15 [5 pts] E BANKFULL W leted and Right (R) as. L R D Q (X) Q (X) D annel, isolated p inel, no water (E	(centimeters):	Widt
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QHEI PERFORMED? - 🖄 Yes 🗔 N	No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE	
WWH Name:	Distance from Evaluated Stream
CWH Name:	
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAP	S, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
GGS Quadrangle Name:	NRCS Soil Map Page: NRCS Soil Map Stream Order
univ Paulding	Township/city_Benton Township
MISCELLANEOUS	
Λ /	0 / 1 W / 15 minut
ise Flow Conditions? (Y/N): Date of	last precipitation: <u>9/19/15</u> Quantity:
hotograph Information:	
levated Turbidity? (Y/N): Cano	py (% open):0
ere samples collected for water chemistry? (Y	(N): (Note lab sample no. or id. and attach results) Lab Number
	ed Oxygen (mg/) pH (S,U.) Conductivity (umhos/cm)
the sampling reach representative of the stree	am (Y/N) If not, please explain:
	<u> </u>
BIOTIC EVALUATION	
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(D number, Inclu ish Observed? (Y/N) Voucher? (Y/N) frogs or Tadpoles Observed? (Y/N) Vouc comments Regarding Biology: DRAWING AND NARRATI Include Important [andmarks and other	ude appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
(D number. Inclu ish Observed? (Y/N) Voucher? (Y/N) Vouc comments Regarding Biology: DRAWING AND NARRATI Include Important landmarks and other Swith WetHind Swith	ude appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)         )Salaman ders Observed? (Y/N) Voucher? (Y/N)         (cher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)         (VE DESCRIPTION OF STREAM REACH (This must be completed):         relatures of Interest for site evaluation and a narrative description of the stream's location         M       Son         M       Son         M       M
(D number. Inclu ish Observed? (Y/N) Voucher? (Y/N) Vouc comments Regarding Biology: DRAWING AND NARRATI Include Important landmarks and other Swith WetHind Swith	ude appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
(D number. Inclu ish Observed? (Y/N) Voucher? (Y/N) Vouc comments Regarding Biology: DRAWING AND NARRATI Include Important landmarks and other Swith WetHind Swith	ude appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
(D number. Inclu ish Observed? (Y/N) Voucher? (Y/N) rogs or Tadpoles Observed? (Y/N) Vouc comments Regarding Biology:  DRAWING AND NARRATI Include Important landmarks and other Swith Swith Swith	ude appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

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June 20, 2008 Revision

PHWH Form Page - 2

WETLAND DETERMINATION DATA FORM - North	central and Northeast Region
Project/Site: City/County:	ulding County sampling Date: 9/23/(5
Applicant/Owner: EDPR	State: _OH Sampling Point: 10@Wct+F
Investigator(s): C. Liddell, R. Farchione Section, Township,	
Landform (hillslope, terrace, etc.): Karace Local relief (concave, c	
Subregion (LRR or MLRA): MLRA 99 Lat: 41.0616	
Soil Map Unit Name: Walkaha Sity Clay Loan, Arguently Booded	NVI classification: N/A (Apland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes N	
	re "Normal Circumstances" present? Yes <u>× No</u>
Are Vegetation X, Soli X, or Hydrology naturally problematic? (I	f needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling poin	it locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Is the Samp	led Area
Hydric Soil Present? Yes No within a We	
Landers and the second se	nal Wetland Site ID: Upland - Acci utuse
Remarks: (Explain alternative procedures here or in a separate report.) - Till of Mound Arctick agricultural field.	· · · · · · · · · · · · · · · · · · ·
-Tilled Moned overthe agricontate (100.	
	<sup>1</sup>
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Marl Deposits (B15)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B15) Water Marks (B1) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living F	
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algai Mat or Crust (B4) Recent Iron Reduction in Tilled So	ils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present?     Yes No Depth (inches);       Water Table Present?     Yes No Depth (inches);	
Water Table Present?     Yes No Depth (inches);     N//fr       Saturation Present?     Yes No Depth (inches);     N//fr	Wetland Hydrology Present? Yes (No)
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	· · · · · · · · · · · · · · · · · · ·
	d'

VEGETATION - Use scientific names of plants.

Northcentral and Northeast Region - Version 2.0

and a second of the second second of the first second second second second second second second second second s				
	Absolute % Cover		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			<u> </u>	Number of Dominant Species
1,				That Are OBL, FACW, or FAC: (A)
2		- · ·		Total Number of Dominant
3,	<del></del>		<u> </u>	Species Across All Strate: (B)
4		·		Percent of Dominant Species
5		<u> </u>	<u> </u>	That Are OBL, FACW, or FAC: (A/B)
6		<u>.                                    </u>		Prevalence Index worksheet:
7			<u>    .                                </u>	Total % Cover of:Multiply by:
		= Total Co	ver	OBL species x1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1 <u></u>				FAC species x3 =
2				FACU species x 4 =
				UPL species x 5 =
3				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				
6		·	_;	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
	<u></u>	= Total Co	ver '	$\frac{1}{2} = 3 - \text{Prevalence Index is } \le 30^{1}$
Herb Stratum (Plot size: 10)	r-17	L)		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Malais alundinarea		, <u> </u>	<u>FACW</u>	data in Remarks or on a separate sheet)
2. Tarazar offizinale	102	N	<u>FACU</u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Trifolium pratence	10%	<u>N</u>	<u> 1911 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Plastap lancolater	57	N	FACU	be present, unless disturbed or problematic.
5. Philaim pirture	15%	Ŷ	FALU	Definitions of Vegetation Strata:
6				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
2				Sapling/strub - Woody plants less than 3 in, DBH
8				and greater than or equal to 3.28 fl (1 m) tall.
9				Herb - All herbaceous (non-woody) plants, regardless of
10		· <u> </u>		size, and woody plants less than 3.28 ft tall.
11 <u>.                                   </u>		·	<u></u>	Woody vines - All woody vines greater than 3.28 ft in
12,	- <u>- </u>	· <del>***</del>		height.
	90	= Total C	over	· · · · · · · · · · · · · · · · · · ·
Woody Vine Stratum (Plot size:)				
1				
2			<del></del>	Hydrophytic Vegetation
3		·		Present? Yes No
4				
		= Total C	over	
Remarks: (Include photo numbers here or on a separa	ite sheet.)		·	
	·			

Sampling Point: 100Wet F

|--|

Sampling Point: LUQWEFF

Profile Desc	ription: (Describe	to the dep	oth needed to docu	ment the i	ndicator	or confirm	i the absence	of indicate	ors.)	·
Depth	Matrix			lox Features	<b>i</b>					
(inches)		<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>		·	Remarks	
<u>0-16†</u>	107R3/2	100	7.548518	21%	$\underline{C}$	<u>M</u>	<u>CI-Lo</u>	-Minim	J redox a	rest
									· · · ·	
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		·	·		, <b></b>		·	. <u> </u>		
	· · · · · ·			"	<u> </u>	<u></u>	·			
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:	<u> </u>	•					·			
		<b>-</b> .	· ·- ·							<u></u>
	······	-								
	· · · · ·							<u> </u>		
<del></del>						,				
	oncentration, D=Dep	etion, RM	Reduced Matrix, N	/IS=Masked	Sand Gr	ains.			Lining, M=Mat	
Hydric Soil									matic Hydric S	
Histosol			Polyvalue Bel		(S8) (LRI	R R <sub>a</sub>			(LRR K, L, ML	
	pipedon (A2) istic (A3)		MLRA 149 Thin Dark Suit	,					ox (A16) (L <b>RR</b> or Peat (S3) (L	
	en Sulfide (A4)		Loamy Mucky						(LRR K, L, M)	
	d Layers (A5)		Loamy Gleye		-	, <b>-</b> /			Surface (S8) (L	
	d Below Dark Surfac	æ (A11)	Depleted Mat		•		-		(S9) (LRR K,	
	ark Surface (A12)		Redox Dark 5						Masses (F12) (I	
	Aucky Mineral (S1)		Depleted Darl		7)				ain Soils (F19)	
	Gieyed Matrix (S4)		Redox Depre	ssions (F8)					6) (MLRA 144/	A, 145, 149B)
	Redox (S5)							arent Maler		a)
	i Matrix (S6) Irface (S7) (LRR R, I	MI RA 149	8)					(Explain in I	k Surface (TF1. Remarks)	2)
							0.1101	(Expicit) in	(Containey	
<sup>3</sup> Indicators o	f hydrophytic vegeta	ition and w	etland hydrology m	ust be prese	ent, unles	s disturbed	l or problemati	Ċ.		
Restrictive	Layer (if observed)	:						• • •		
Type:	· · · · · · · · · · · · · · · · · · ·		<u> </u>							
Depth (in	ches):		_				Hydric Soi	Present?	Yes	No
Remarks:					-					. *
	Find soils.									
	2									
								-		

WETLA	AND DETERMINATION DA	ATA FORM – North	ncentral and Northeas	t Region
Project/Site: <u>Timber Roa</u>	d III Wind Farm	City/County: Pa	aulding County	Sampling Date: 9/23/15
Applicant/Owner:EDPR			State: OH	Sampling Point: IW@ Wet
Investigator(s): <u>C. Liddell</u> ,		Section, Township	. Range:	
		<i>*</i> :		<u>₹</u> Slope (%): <u>0</u> - <u>5</u>
Subregion (LRR or MLRA):	. <b>.</b> .			Datum: WGS 84
		K. 1		
	a stilly day token Argu	1	NWI classifi	1
Are climafic / hydrologic conditio	ons on the site typical for this time			
Are Vegetation, Soil	, or Hydrology signific	antly disturbed?	Are "Normal Circumstances"	present? Yes <u>K</u> No
Are Vegetation, Soil	, or Hydrology natural	ly problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDING	S – Attach site map show	ving sampling poi	nt locations, transect	s, important features, etc.
Hydrophytic Vegetation Preser	nt? Yes 🗡 No	Is the Sam		
Hydric Soil Present?	Yes 📈 No	within a W		
Wetland Hydrology Present?	Yes 🗡 No	If yes, optic	onal Wetland Site ID:/	Hend F
Remarks: (Explain alternative	procedures here or in a separate	report.)		
HYDROLOGY		,		
Wetland Hydrology Indicato	5:	,	Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum c	of one is required; check all that an	eply)	Surface So	l Cracks (B6)
🛫 Surface Water (A1)		ained Leaves (B9)	🔟 Drainage P	
📈 High Water Table (A2)	<u>k</u> Aquatic F		Moss Trim	
<u>gC</u> Saturation (A3)		osits (B15)		Water Table (C2)
Kater Marks (B1)		i Sulfide Odor (C1) Rhizosobaros on Living	🗽 Crayfish Bu Boots (C3) — Saturation	(isible on Aerial Imagery (C9)
Drift Deposits (B3)		of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4)		on Reduction in Tilled S		
Iron Deposits (B5)		k Surface (C7)	Shallow Aq	
Inundation Visible on Aeri		plain in Remarks)		raphic Relief (D4)
Sparsely Vegetated Conc		-		al Test (D5)
Field Observations:			1	
Surface Water Present?	Yes 📐 No 💁 Depth (ir			i
Water Table Present?	Yes K No Depth (in	iches): Surfall		
Saturation Present? (includes capillary fringe)	Yes <u>K</u> No Depth (in		Wetland Hydrology Pres	ent?Yes <u>K</u> No
Describe Recorded Data (stre	am gauge, monitoring well, aerial	photos, previous inspec	ctions), if available:	
Remarks:		·		
				· · · · · · · · · · · · · · · · · · ·

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VEGETATION	Use	scientific	names	of	plants.
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1990 B. S. B.

Sampling Point.	IWQWAF
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	-			
The solution (Distance)	·	Dominant	A	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
۳. <u></u>	·		<u> </u>	That Are OBL, FACW, or FAC: (A)
2				
				Total Number of Dominant
3			<u> </u>	Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
				· · · · · · · · · · · · · · · · · · ·
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	ог <sup>.</sup>	OBL species x 1 =
		- 10141 001	<b>(</b> ,	
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1				FAC species x 3 =
				FACU species x 4 =
2		·	. <u></u>	UPL species x 5 =
3		·	·	Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
ő			<u> </u>	Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
· 7.	· · · · · · · · · · · · · · · · · · ·		·	2 - Dominance Test is >50%
#		= Total Cov	er	3 - Prevalence index is ≤3.0 <sup>1</sup>
<u>Herb Stratum</u> (Plot size: $10$ )	Bo%	Ŷ	FACU	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Pholoris Arundiancia		· <u> </u>		data in Remarks or on a separate sheet)
	15%	<u> </u>	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Alisma Subcordation	20%	<u> </u>	<u>06L</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4 LEEFSIA DAIZOIDES	16%	<u>الا</u>	0BL	be present, unless disturbed or problematic.
		<u> </u>		
5. Ribes 3R	<u> </u>	. <u>. N</u>	FACW	Definitions of Vegetation Strata:
6 Ascledias incorrota	57-	N	066	Tree - Woody plants 3 in. (7.6 cm) or more in diameter
			<u> </u>	at breast height (DBH), regardless of height.
7	· . <u></u>			
8		. <u></u>		Sapling/shrub – Woody plants less than 3 in, DBH and greater than or equal to 3.28 ft (1 m) tall.
9		<u> </u>		and greater than or equal to 3.20 (F( ) my tail
	•		· <del></del> .	Herb - All herbaceous (non-woody) plants, regardless of
10	·	<u></u>	-	size, and woody plants less than 3.28 ft tall.
111 <u>,</u>	_ ,		·	777 - 37 - 4 - 4 - 4 - 4 - 4 4
12				Woody vines – All woody vines greater than 3.28 ft in height.
	135		() <del></del>	riorgine.
	<u> </u>	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				
1				
				Hydrophytic
.2		·		Vegetation
3,	<u> </u>			Present? Yes 🔛 No
4				
			· <u> </u>	
		_ = Total Cov	/er	
Remarks: (Include photo numbers here or on a separate	e sheel.)			
1				

والمراجع معتبك يصطابنا

	oth needed to documer	it the indicator of	confirm	the absence o	i muicatoi	a')		
Depth <u>Matrix</u>	Redox F	eatures						
inches) Color (moist) %	Color (moist)	<u>%</u> Type <sup>1</sup>		Texture		Remarks	<u>.</u>	
0-20 104R 3/1 100				11-20	ha m	weky/	loan Muse	
	* 101R 2/1 3	30 C	M (	Joaniz del	<u>is</u> -1	I Garia	dela3_	
····			r	<u> </u>	t ŝ		<u></u>	
·	. <u> </u>			223 19 <sup>1814</sup>	<u>throy</u>	<u>10001"</u>	. 1	
			<u> </u>	··· ·	<u>-50p</u>	er Satu	aneo -	
	·							
				·		· .	··· ·	
	·	; · <b>_</b> ; · <b>_</b>		·				
	·			·			<u> </u>	
							<u></u>	
	·							
	····						<u> </u>	
					0.5			
Type: C=Concentration, D=Depletion, RN lydric Soil Indicators:	I=Reduced Matrix, MS=	Masked Sand Grail	15.			<u>ining, M=Mat</u> natic Hydric		
	Polyasius Relaw 9	Surface (S8) (LRR	2.			LRR K, L, MI		
Histosol (A1) Histic Epipedon (A2)	MLRA 149B)					x (A16) (LRF		
Black Histic (A3)		(S9) (LRR R, MLF	(A 149B)				LRR K, L, R)	
Hydrogen Sulfide (A4)	🟒 Loamy Mucky Min		-)			(LRR K, L, N		
Stratified Layers (A5)		Loamy Gleyed Matrix (F2)			Polyvalue Below Surface (SB) (LRR K, L)			
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)			Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)				
Thick Dark Surface (A12)	Redox Dark Surfa Depleted Dark Sü						) (MLRA 149B)	
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Redox Depression						IA, 145, 149B)	
Saпdy Redox (S5)	·				rent Materi			
Stripped Matrix (S6)					Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
					Evelain in F	(emarks)		
Dark Surface (S7) (LRR R, MLRA 14)	9B)			Other (		•		
		be present, unless	disturbed	•				
Indicators of hydrophylic vegetation and a		be present, unless	disturbed	•				
Indicators of hydrophylic vegetation and a		be present, unless	disturbed	•				
Indicators of hydrophytic vegetation and v Restrictive Layer (if observed):		be present, unless	disturbed	•	<u>.</u>		No	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>		No	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>		No	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	distûrbed	or problematic	<u>.</u>		<u>No</u>	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>		<u>No</u>	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>		No	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>		<u>No</u>	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>		<u>No</u>	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>		No	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>		<u>No</u>	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>		<u>No</u>	
<sup>a</sup> Indicators of hydrophytic vegetation and v Restrictive Layer (if observed): Type:		be present, unless	disturbed	or problematic	<u>.</u>		<u>No</u>	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>	<u></u>	No	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>	<u></u>	No	
Indicators of hydrophytic vegetation and a Restrictive Layer (if observed): Type: Depth (inches):		be present, unless	disturbed	or problematic	<u>.</u>	<u></u>	<u>No</u>	

(b) 1. Second states were defined as the second states and the second states are second as a second state of the second states of the second states are second states.

•			
	Qualitative Habitat E and Use Assessme		QHEI Score: 57
Stream & Location: Flat re	ck Creek Westo	FRd 33 RI	M: Date: <u>04/24/15</u>
Wetland 6	Scorers Fu	Il Name & Affiliation: <u></u>	Liddell + R.Farchione EAR
River Code:	STORET #:L	at./Long.: 41.1569	184.1479 Office verified location
1] SUBSTRATE Check ONLY Two su estimate % or note e BEST TYPES POOL RIFFLE	bstrate TYPE BOXES; very type present OTHER TYPES POOL BIE	ORIGIN	(Or 2 & average) QUALITY
Image: Decision of the second state	HARDPAN [4] DETRITUS [3] MUCK [2] SILT [2] ARTIFICIAL [0] (Score natural substrates, ic or more [2] studge from point-sou or less [0]	□ LIMESTONE [1] □ TILLS [1] □ WETLANDS [0] □ XHARDPAN [0] □ SANDSTONE [0] □ RIP/RAP [0]	SILT   MODERATE [-1] SILT   MODERATE [-1] FREE [1] DED   EXTENSIVE [-2] Maximum NONE [1]
Turbid Waters, Clay	Substrates most do	m not	
2] INSTREAM COVER indicate pre- quality; 3-Highest quality in moderate or diameter log that is stable, well develope 2_UNDERCUT BANKS [1] 2_OVERHANGING VEGETATION [1] 2_SHALLOWS (IN SLOW WATER) [ [] \$ ROOTMATS [1] Comments	derate amounts, but not of highes greater amounts (e.g., very large b d rootwad in deep / fast water, or d POOLS > 70cm [2] 1ROOTWADS [1]	totality of in small amounts of in oulders in deep or fast water, larg eep, well-defined, functional poo OXBOWS, BACKWATERS AQUATIC MACROPHYTES LOGS OR WOODY DEBRIS	Ignest Check ONE ( <i>Or</i> 2 & <i>average</i> ) Is □ EXTENSIVE >75% [11] [1] ■ MODERATE 25-75% [7] [1] □ SPARSE 5-<25% [3]
1 $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$	instream Cover, 19	as Ideb is from hear	6 G 1 1 1 20
- TIA AMOUNTS OF 3] CHANNEL MORPHOLOGY Ch SINUOSITY DEVELOPMEN HIGH [4] EXCELLENT [7] [2] MODERATE [3] [2] GOOD [5]	eck ONE in each category (Or 2 & T CHANNELIZATION		Y GOD EVEN
DIONE [1] DIFAIR [3] DINONE [1] DOOR [1] Comments Multiple microha	□ RECOVERING [3] □ RECENT OR NO RECOVE Situts. Water Glue	nn semi-develope	Channel Maximum Had W/ highly trbio
4] BANK EROSION AND RIPAR River right looking downstream RIPA	IAN ZONE Check ONE in each	Category for EACH BANK (OF 2 P	per bank & average) Water
	> 50m [4]	ST, SWAMP [3] IB OR OLD FIELD [2] JENTIAL, PARK, NEW FIELD [1] IED PASTURE [1] I PASTURE, ROWCROP [0]	CONSERVATION TILLAGE [1] CURBAN OR INDUSTRIAL [0] URBAN OR INDUSTRIAL [0] CURBAN OR INDUSTRIAL [0] URBAN OR INDUSTRIAL [0] CONSTRUCTION [0] Indicate predominant land use(s) past 100m riparian Ripari Riparian Riparian Ripari Riparian Riparian Rip
Comments 2	, 2	<u>1</u> .5	Maximum 10
Check ONE (ONLY!) Check	ANNEL WIDTH ONE (Or 2 & average) DTH > RIFFLE WIDTH [2] □ TOF	CURRENT VELOCITY Check ALL that apply RENTIAL [-1] [2] SLOW [1]	Recreation Potential Primary Contact Secondary Contact
□ 0.4~<0.7m [2]	DTH < RIFFLE WIDTH [0]	DERATE [1] DEDDIES [1] dicate for reach - pools and riffie:	NT [-2] Current
Indicate for functional riffle of riffle-obligate species:	s, Best areas must be lar Check ONE (Or	ge enough to support a p 2 & average).	Dopulation
□ BESTAREAS > 10cm [2] □ MAXIM □ BESTAREAS 5-10cm [1] □ MAXIM □ BESTAREAS < 5cm [metric=0]	a service and	(e.g., Large Gravel) [1] g., Fine Gravel, Sand) [0]	□ NONE [2] □ LOW [1] □ MODERATE [0] Riffle / O □ EXTENSIVE [-1] Maximum
Comments Lack of it	ffles, deep slow moving	stream	8
DRAINAGE AREA	VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6]		GLIDE: Gradient Gradient 3 RIFFLE: Maximum 10

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Sampling observations, Concerns, Access directions, etc. <i>E] ISSUES</i> <i>WWTP / CSO 1.NPDES / INDUSTRY</i> <i>WWTP / CSO 1.NPDES / INDUSTRY</i> <i>HARDENED / URBAN / DIRT&amp;GRIME</i> <i>CONTAMINATED / LANDFILL</i> BMPs-CONSTRUCTION-SEDIMENT CONTAMINATED / LANDFILL BMPs-CONSTRUCTION-SEDIMENT CONTAMINATED / LANDFILL MATURE / LANN / FLOW MATURE / MALURE / LANN / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	
Carment RE. Reach consistency/is reach typical of stearm?, Recreation/ Observed - Inferred, Othor/ Sampling observations, Concerns, Access directions, etc.         BJAESTHETICS       DI MaliNTE/VANGE         BJSCOLORATION       Exclose transmervice         BJSCOLORATION       Exclose transmervice         BJSCOLORATION       Exclose transmervice         BJSCOLORATION       Exclose transmervice <t< th=""><th></th></t<>	
Aj SAMPLED REACH       Comment RE. Reach consistency/ is         Check ALL that apply       METHOD       STAGE         MeTHOD       STAGE       Ist-semple pass- 2nd         MeTHOD       STAGE       Intent apply         MeTHOD       STAGE       Intent apply         MeTHOD       STAGE       Intent apply         MeTHOD       STAGE       Intent apply         I. Line       UP       Intent apply         I. Line       UP       Intent apply         I. Line       UP       Intent apply         I. Lune       Intent apply       Intent apply         I. Lune       Intent apply       Invasive marchophytics         I. Lune       Intent apply       Invasive marchophytics         I. Loo       Intent applytics       Invasive marchophytics         I. Loo       Intent applytics       Invasive marchophytics         I. Lane       Invasive marchophytics       Invasive marchophytics         I. Loo       Intent applytics       Invasive marchophytics         I. Loo       Intent applytics       Invasive mar	Stream Drawing: SEE Fyuce

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# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

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Project/Site: Timber Road III Wind Farm City/County: Paulding County sampling Date: 9/24/15
Applicant/Owner: <u>EDPR</u> State: <u>OH</u> Sampling Point: <u>JW @ Wet</u> 6
Investigator(s): <u>C. Liddell, R. Farchione</u> Section, Township, Range: <u>Benton</u>
Landform (hillslope, terrace, etc.): Terrale Oppression Local relief (concave, convex, none): 600600 Slope (%): 0-32
Subregion (LRR or MLRA): MLRA 99 Lat: 41.0545 Long: -24.74.89 Datum: WGS.84
Soil Map Unit Name: Wb - Wabasha si Ity day loan - frequently file MWi classification: PS/PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>K</u> No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes K. No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No

Hydric Soil Present?	Yes 📉 No	within a Wetland? Yes 🔨 No
Wetland Hydrology Present?	Yes <u>X</u> No	If yes, optional Wetland Site ID: Wetland G
Remarks: (Explain alternative proc	edures here or in a separate report	.).
	·····	

#### HYDROLOGY

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Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9)	X Drainage Patterns (B10)
High Water Table (A2) X Aquatic Fauna (B13)	Moss Trim Lines (B16)
K Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	✓ Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living R	Roots (C3) 🔝 Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunied or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled So	ils (C6) 🛛 🗶 Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	🔀 Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	EAC-Neutral Test (D5)
Field Observations:	en e
Surface Water Present? Yes Nor X Depth (inches):	
Water Table Present? Yes No X_ Depth (inches):	
Saturation Present? Yes <u>K</u> No <u>Depth</u> (inches): 6 The (includes capillary fringe)	Wetland Hydrology Present? Yes 👗 No
Describe Recorded Data (stream gauge, monitoring well, aertal photos, previous inspect	tions), if available:
, NI 	
Remarks: Large Stroom floodplain.	
	,
4.	
	· · · · · · · · · · · · · · · · · · ·

· · · · · · · · · · · · · · · · · · ·		Dominant		Sampling Point: JW&We
ree Stratum (Plot size:)		Species?		Number of Dominant Species 4 That Are OBL, FACW, or FAC: (A)
	e			Total Number of Dominant
			·	Species Across All Strata: (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/
			- <del></del>	
			·	Prevalence Index worksheet: Total % Cover of: Multiply by:
		= Total Cov	/er	OBL species x 4 =
apling/Shrub Stratum (Plot size; 15)				FACW species x 2 =
Fraxinus nigra	15	ALLA Y	FACW	FAC species x 3 =
				FACU species × 4 =
			• <b></b>	UPL species x 5 =
				Column Totals: (A) (
				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	ver	2 - Dominance Test is >50%
erb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0 <sup>1</sup>
Lara se.	45	<u> </u>	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide suppor data in Remarks or on a separate sheet)
Lysimachia numnulacia	70	<u> </u>	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Symphystichen anicen	<u>65</u>	<u> </u>	<u>06(</u>	<sup>1</sup> Indicators of hydric soil and welland hydrology mus
Asclepias incurnation	25	N	ORL.	be present, unless disturbed or problematic.
Wetarossys	<u>    35                                </u>	<u>N</u>	FACW	Definitions of Vegetation Strata:
Erthumia gramminitolia	15	<u>N</u>	FAC	Tree - Woody plants 3 in. (7.6 cm) or more in diamo
Toxicodention radicens	15	_N	FAL	at breast height (DBH), regardless of height.
Isis Vasicoloc	<u> </u>	<u>N</u>	DBL	Sapling/shrub – Woody plants less than 3 in, DBH and greater than or equal to 3,28 ft (1 m) tall.
Sneezewood Helenium autumna	12 10	<u>N</u>	FACU	Herb All herbaccous (non-woody) plants, regardless o
0				size, and woody plants less than 3.28 ft fall.
1				Woody vines - All woody vines greater than 3.28 ft in
2		= Total Co		height.
Voody Vine Stratum (Plot size:)				
·				
2				Hydrophytic
3.				Vegetation Present? Yes X No
[				
ан сайтаан айсан айс Айсан айсан айс		_ = Total Co	over	
Remarks: (Include photo numbers here or on a separa	e sheet.)	· · · · · · · · · · · · · · · · · · ·		

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А.,

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epth	nprion: (Describe	to the dep	th needed to docu			or confir	m the absenc	e of indicators.)		
iches)	Matrix Color (moist)		Color (moist)	ox Featun %	es Type <sup>1</sup>	Loc <sup>2</sup>	Texture		emarks	
11	104R371	100	57R.4/4	5	<u>(</u>	P)	CI-Lo			
$\frac{1-6}{9}$			7.54R6/8			 M	<u>C1-Lo</u>	:		
$\frac{n}{2} - \frac{1}{8}$	1042-3/2	100	<u>-1-27K48</u>	<u> </u>	<u> </u>	1.			•	<u> </u>
8-26+	104R-4/2	100	<u> </u>	· <u> </u>			<u>CI-ho</u>		-	<u></u>
			<i>,</i>							
	<u> </u>									
	·					<u> </u>			<del></del>	1
					<u> </u>					
	ж. С									
									<u></u>	
			an a					on: PL=Pore Linin	a M=Matrix	· · · .
	indicators:	DIELION, RAV	Reduced Matrix, N	IO-IVIASK		<u>anis.</u>		rs for Problemation		s <sup>3</sup> :
Histosol			Polyvalue Bek	ow Surfac	e (S8) (LR	RR,	2 crt	Muck (A10) (LRR	K, L, MLRA	149B)
	oipedon (A2)		MLRA 149	3)				st Prairie Redox (A		
_ Black Hi			Thin Dark Sur					Mucky Peat or Pt		ικ, L, R)
	n Sulfide (A4) I Layers (A5)		Loamy Mucky		· · · ·	<b>、</b> ∟}		: Surface (S7) (LR value Below Surfa		(K. L)
	d Below Dark Surfa	ce (A11)	Depleted Matr		~)	•		Dark Sürface (S9		<u>/</u>
- /	ark Surface (A12)	· · · /	Redox Dark S	urface (Fi				Manganese Mass	· · · · · · · · · · · · · · · · · · ·	
Constant II.	Aucky Mineral (S1)		Depleted Dark		(F7)		Diad.	mont Floodplain S	ioils (F19) (M	LRA 149B)
								•		
Sandy G	Sleyed Matrix (S4)		Redox Depres	ssions (F8	3)		Mes	ic Spodic (TA6) (N	ILRA 144A,	
Sandy G Sandy F	Bleyed Matrix (S4) Redox (S5)			ssions (Fe	3)		Mes Red	•	ILRA 144A, 21)	
Sandy G Sandy F Stripped	Sleyed Matrix (S4)	MLRA 149	Redox Depres	ssions (F8	3)		Mes Red Ven	ic Spodic (TA6) (N Parent Material (F	ILRA 144A, 2 21) face (TF12)	
Sandy G Sandy F Stripped Dark Su	Sleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR R,		Redox Depres				Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem	ILRA 144A, 2 21) face (TF12)	
Sandy G Sandy F Stripped Dark Su	Sleyed Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic vegeta	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem	ILRA 144A, 2 21) face (TF12)	
Sandy G Sandy F Stripped Dark Su ndicators o estrictive	Sleyed Matrix (S4) Redox (S5) I Matrix (S6) Irface (S7) (LRR R,	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem	ILRA 144A, 2 21) face (TF12)	
Sandy G Sandy F Stripped Dark Su ndicators o estrictive	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem	ILRA 144A, 21) face (TF12) arks)	
Sandy G Sandy F Stripped Dark Su ndicators o estrictive	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su ndicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su dicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su dicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su dicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su dicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su dicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			ss disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su dicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su ndicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su ndicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			ss disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su dicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)
Sandy G Sandy F Stripped Dark Su ndicators o estrictive Type: Depth (in	Sleved Matrix (S4) Redox (S5) I Matrix (S6) Inface (S7) (LRR R, I hydrophytic veget Layer (if observed	ation and y	Redox Depres			s disturb	Mes Red Very Othe	ic Spodic (TA6) (N Parent Material (F Shallow Dark Su er (Explain in Rem attic.	ILRA 144A, 21) face (TF12) arks)	145, 149B)

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WETLAND DETERMINATION DATA FORM North	- * *
Are Vegetation, Soil, or Hydrology naturally problematic?         SUMMARY OF FINDINGS – Attach site map showing sampling poil         Hydrophytic Vegetation Present?       Yes	State: OH Sampling Point: IU(@In/k119 , Range: Ben 40h convex, none): Olling / Slope - N Slope (%): 1-37. Long: - 84, 7445 Datum: WGS 84 p <s -="" are="" classification:="" i&hurcz<br="" nwi="" upland="">No (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) Int locations, transects, important features, etc. pied Area</s>
- Act WC agricultares/Soy.         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)	Stunted or Stressed Plants (D1)         oils (C6)       Geomorphic Position (D2)         Shallow Aquitard (D3)
	Microtopographic Relief (D4) FAC-Neutral Test (D5) Wetland Hydrology Present? YesNo

and the Lifzbarr  $(1-1)^{-1}$  , where  $\beta = 1$  .

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1,1,2,1,1,2,3,3

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VEGETATION -	Use	scientific names of	of plants.
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Sampling	Point:	U	W	√ <del>d∕</del>	Ę

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~~	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	
1		<u> </u>		Number of Dominant Species. That Are OBL, FACW, or FAC:(A)
2				
				Total Number of Dominant Species Across All Strata: (B)
.3				
4. <u>.</u>	·			Percent of Dominant Species
.5	·	·	<u> </u>	That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet;
7				Total % Cover of: Multiply by:
		= Total Co	ior	OBL species         x1 =
÷				FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1	•			· · · · · · · · · · · · · · · · · · ·
2			· '	FACU species x 4 =
. 3				UPL species         x 5 =
4				Column Totals: (A) (B)
				Prevalence index = $B/A = 7$ 3
5			a:	·······
6 <u>.</u>	•	<u></u>	·	Hydrophytic Vegetation Indicators:
7		<u></u>		<u> <u> </u> 1 - Rapid Test for Hydrophylic Vegetation </u>
	<u> </u>	= Total Co	/er	$\underline{\mathcal{M}}$ 2 - Dominance Test is >50%
Herb Stratum (Plot size: 15	·			<u> </u>
1. Poa Sp.	107-	N	FACU	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
	70	 	JPL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. (Hycine mix	- <u></u>			
3 Caret SP	10%	N	FACW	Indicators of hydric soil and wetland hydrology must
4 Fraxinus nigra Sudings	57.	M	FACU	be present, unless disturbed or problematic.
5.				Definitions of Vegetation Strata;
6				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
7				Configuration ( Woods a factor law streep 0 in DDF)
8			·	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9	,			
10			<u></u>	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11		a		
12				Woody vines - All woody vines greater than 3.28 ft in
<u> </u> <u></u>	05	= Total Co	<del>.</del>	height.
			ver	
Woody Vine Stratum (Plot size:)				
1	<u> </u>		<u>.</u>	
2				Hydrophytic Vegetation
3.				Present? Yes (No)
Λ				$\checkmark$
		=:Total Co	ver	
Remarks: (Include photo numbers here or on a separate	e sneet.)			

and the Name of States of the second

rofile Desc								Sampling P	roint: We Wetl
· - · · ·	ription: (Describe	to the dep	th needed to docum	ent the indicator	or confirm	n the absence o			
Depth	Matrix			Features					
(inches)	Color (moist)	%	Color (moist)	<u>% Type'</u>	Loc <sup>2</sup>	Texture .		Remarks	
<u>O-20"+</u>	101R 4/2	40			· <u> </u>	CI-LO			[
	loge Siy	60	1			(I-La	-Light	15 Soil	s, moist
	<u></u>				·		- i - T		A 1
·	<u> </u>		,				bt r	104 Dat	tus noted
<u> </u>		<b>_</b>							
									· · · · · · · · · · · · · · · · · · ·
			、	<u></u>		·		· · · ·	
	·			<u></u>		, -			
		<u>.</u>		·					
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			·						
Type: C=C	oncentration, D=Dej	pletion, RM	=Reduced Matrix, MS	-Masked Sand Gr	ains:		PL=Pore Li		
Hydric Soil )	Indicators:		* .			Indicators f		-	
Histosol				Surface (S8) (LR	RR,		uck (A10) (L		
	pipedon (A2)		MLRA 149B) Thin Dark Surfac	æ (S9) (LRR R, M			rairie Redox		(LRR K, L, R)
Black Hi Hydrone	n Sulfide (A4)			ineral (F1) (LRR F			utry reat of Inface (S7) (I		
	d Layers (A5)		Loamy Gleyed N		· · · · ·		ue Below Su		
	d Below Dark Surfa	ce (A11)	Depleted Matrix				irk Surface (		
Thick Da	ark Surface (A12)		Redox Dark Sur			Iron-Ma	inganese Ma	isses (F12)	(LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark S						3) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depressi	ons (FB)					4A, 145, 149B)
	(Matrix (S5)			. A			rent Materia hallow Dark (		510).
	Matrix (S6) Inface (S7) (LRR R,	MI RÅ 149	B)	NIA			Explain in Re		(2)
		116051 144	0,	4					
			etland hydrology must	be present, unles	s disturbe	d or problematic	· ·	=	
	Layer (if observed								
			<del>.</del>						X
Depth (in	ches):					Hydric Soil	Present?	Yes	_ No <u>^</u>
Remarks:	·	<b></b>	···- <u>-</u>		•-				

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WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region
roject/site: Timber Road III Wind Farm City/county: Paulding County sampting Date: 9/24/15
ppficant/Owner: <u>EDPR</u> State: <u>OH</u> Sampling Point: <u>L=VVCSVV</u>
vestigator(s): <u>C. Liddell, R. Farchione</u> Section, Township, Range: <u>Benten</u>
andform (hillslope, terrace, etc.): Torrace degrossion Local relief (concave, convex, none): Concave Slope (%): 1-37.
ubregion (LRR or MLRA): MLRA 99 Lat: 41.055 Long: -84,7494 Datum: WGS 84
oil Map Unit Name: Wh- Wabasha silty clay loam, frepently floed NWi classification: FEO
re climatic / hydrologic conditions on the site typical for this time of year? Yes K_ No (If no, explain in Remarks.)
re Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 🗶 No
•
re Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 🔀 No Is the Sampled Area
within a Wetland? Yes <u>No</u> No
Wetland Hydrology Present? Yes X No If yes, optional Wetland Site ID: Wetland G
IYDROLOGŸ
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leaves (B9) X Drainage Patterns (B10)
High Water Table (A2)     Aquatic Fauna (B13)     Moss Trim Lines (B16)
Autorition (A3)       Marl Deposits (B15)       Dry-Season Water Table (C2)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       X Crayfish Burrows (C8)
Sediment Deposits (B2)      Oxidized Rhizospheres on Living Roots (C3)      Saturation Visible on Aerial Imagery (C9)         X_Drift Deposits (B3)      Presence of Reduced Iron (C4)      Stund or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Sürface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) X Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes No X Depth (inches):
Saturation Present? Yes <u>Yes</u> No Depth (inches): SUCFOC Wetland Hydrology Present? Yes <u>X</u> No (includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Deventer
Remarks:

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(1) South Charles (1) and a state of the second se second sec

### VEGETATION - Use scientific names of plants.

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Sampling Point: 2.W. WetG

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?		Number of Dominant Species 7
1. Salix nigia	10	N	OBL	That Are OBL, FACW, or FAC: (A)
2. Ulmus anecicana	20	<u> </u>	EACH	Total Number of Dominant
3. Poplos deltaides	15	_ <u> </u>	FAC	Species Across All Strata: (B)
4. Frexings Migson	15	y	FACH	Percent of Dominant Species
5Snay5"	30			That Are OBL, FACW, or FAC: 100 (A/B)
5	<u></u>		·	
. <u></u>		······	<u> </u>	Prevalence Index worksheet:
7			·	Total % Cover of: Multiply by:
· · · ·	40	= Total Co	/er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1_ FLAXING NIGLA	10	Ý	FACH	FÁC species x 3 =
2. (ceptalanthus occidentalis	35	Y	OBL	FACU species x 4 =
		!	<u> </u>	UPL species x 5 =
3		· <u> </u>		Column Totals; (A) (B)
4			- <u> </u>	Prevalence index = B/A.=
5				Hydrophytic Vegetation Indicators:
6		···		1 - Rapid Test for Hydrophytic Vegetation
7	<u> </u>	 _ = Total Co		✓ 2 - Dominance Test is >50%
		_ = Total Co	ver	 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Herb Stratum (Plot size: 5	70	N	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1. Lyst machini numetavila	40	. <u></u> 	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Symphys triching punican	25	· <u> </u>		
3. Toxicodendron padicions	<u>.                                    </u>	<u>_N</u> _	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Asulepins incorrata	20	<u>N</u>	OBL	be present, unless disturbed of problematic.
5. Carent Spi	35	<u> </u>	FACU	Definitions of Vegetation Strata:
6. Leursie Anzoides	15	N	OBL	Tree - Woody plants 3 in. (7.6 cm) or more in diameter
PILICIN	10	N	OBL	at breast height (DBH), regardless of height
Cine Ande	5	<u></u>	OBL	Sapling/shrub – Woody plants less than 3 in. DBH
		- <u>p</u>	oBL	and greater than or equal to 3.28 ft (1 m) tall.
9. Icis Versicolar		- <u>- N</u>		Herb – All herbaceous (non-woody) plants, regardless of
10. Carex Sylaforson	15	N	OBL	size, and woody plants less than 3.28 ft tall.
				Woody vines - All woody vines greater than 3.28 ft in
12	- :			height.
	250	_= Total Co	ver	
Woody <u>Vine Stratum</u> (Plot size:)				
1.				•
				Hydrophytic
2			<u> </u>	Present? Yes <u>No</u>
] <sup>3</sup>	<u> </u>	<u>.</u>		
4	<u> </u>			
		_ = Total C	over	
Remarks: (Include photo numbers here or on a separat	e sheet.)			
1				
}				
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Dooth		to the del	A 41.			61				
	ription: (Describe Matrix		544 114 Red	ox Features	<u> </u>	41	61-10			
(inches)	Color (moist)	<u>%</u>	<u>Color (moist)</u>	75	Type <sup>1</sup>	$\frac{Loc^2}{ct}$	<u>Texture</u>		<u>Rémarks</u>	
103-12	10182/2	100	7.54RG/9	35_	6	PL/M		Keloe	presente_	
10-20%	104R 2/2	100	754R618	<b>P</b>	<u>C</u>	PL/M	4Lo	<del></del>		
	· · · · · · · · · · · · · · · · · · ·	·	·					·		
	- <u> </u>		·		<u> </u>					
· <u>····</u> ·······························		·				<u></u>				· · · · · · · · · · · · · · · · · · ·
							··			
<sup>1</sup> Typë: C=C Hydric Soil	oncentration, D=Dep	letion, RN	I=Reduced Matrix, N	/IS=Masked	Sand G	rains.			Lining, M=Mat matic Hydric (	
Hydroge     Stratifier     Deplete     Thick D     Sandy M     Sandy C     Sandy F     Stripped	istic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surfac ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) J Matrix (S6) urface (S7) (LRR R, 1	MLRA 149		Mineral (F1 d Matrix (F2 rix (F3) Surface (F6) k Surface (F ssions (F8)	1) (LRR ) ) 7)	Κ, Ί.)	Dark 9 Dark 9 Polyve Thin I Iron-M Piedm Mesic Red F Very 9 Other	Surface (S7) alue Below S Dark Surface Manganèse M nönt Floodpl Spodic (TA Parent Mater Shallow Dark (Explain in i	k Surface (TF1	) LRR K, L) LRR K, L, (MLRA 14 A, 145, 14
			wetland hydrology m	ust be prese	ent, unle:	ss disturbed	or problemati	<b>C</b> .		
<sup>a</sup> indicators c	f hydrophytic vegeta									
<sup>a</sup> indicators c Restrictive	of hydrophytic vegeta Layer (if observed)	):					1			
<sup>a</sup> Indicators c Restrictive Type:	Layer (if observed)	l:	_				Hydric Soi	1 Precent?	ves X	No
<sup>3</sup> Indicators c Restrictive Type: Depth (in	Layer (if observed)	): 					Hydric Soi	1 Present?	Yes X	No
<sup>a</sup> Indicators c Restrictive Type:	Layer (if observed)	)2 					Hydric Sol	1 Present?	Yes X	No
<sup>3</sup> Indicators c Restrictive Type: Depth (in	Layer (if observed)		- 			. ·	Hydric Sol	1 Present?	Yes X	<u>No</u>
<sup>3</sup> Indicators c Restrictive Type: Depth (in	Layer (if observed)						Hydric Sol	1 Present?	Yes X	<u>No</u>
<sup>3</sup> Indicators c Restrictive Type: Depth (in	Layer (if observed)	)2 					Hydric Sol	1 Present?	Yes X	No

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			HALL SCOLE (S	um of metrics 1, 2, 3):	
SITE NAME/LOCATI		- NWO+	Northern end	····	
	SITE NUMBER M REACH (ft) 250-Ff		ASIN MAUMER	DRAINAGE AREA (mi <sup>2</sup> ) R CODE RIVER MILE	4
	IS scorer CL/RF			of steam So Jlh of whete	
- 1 1			/a. 1	hio's PHWH Streams" for In	
STREAM CHANN	ana na katala da " ana 1995.		A CONTRACTOR OF		oversener:
and the second of second of the inproving a second				nd horth to Flat Roc	
	ande en service en service de la service Recentration de la service d				
				edominant substrate TYPE boxes core is sum of boxes A & B.	HH
	<u>P</u> LABS [16 pts]	ERCENT TYPE	SUTISPI	PERCENT O	Met Poir
D BOULD	ER (>256 mm) [16 pts] 📃	<u>Š</u> sv dď	LEAF PACKWOODY [	DEBRIS [3 pts] 20	Subst
	CK [16 pt] _( = (65-256 mm) [12 pts]		FINE DETRITUS [3 pt CLAY or HARDPAN [0	· · · · · · · · · · · · · · · · · · ·	Max =
GRAVE	 [9 pts]	<u>107.</u>	MUCK [8 pts]	<u> </u>	16
	<2 mm) [6 pts]	<u>-4:61</u>	ARTIFICIAL [3 pls]	i de la construcción de la constru La construcción de la construcción d	
	of Percentages of Boulder, Cobble, Bedrock	O (A) 9		(8) 〒	A+1
SCORE OF TWO M	DST PREDOMINATE SUBS	TRATE TYPES:		OF SUBSTRATE TYPES:	*
	ool Depth <i>(Measure the m</i> Avoid plunge pools from roat			evaluation reach at the time of	Pool D Max =
🛛 > 30 centime	ters [20 pts]		> 5 cm - 10 cm [15 pt		
□ > 22.5 - 30 0 □ > 10 - <u>22.5 0</u>			NO WATER OR MOI	ST CHANNEL [0 pts]	20
COMMENT	s Pools frequer	t along steen	Larchs MAXIMUM POO	31. DEPTH (centimeters):	
3. BANK FUL	K WIDTH (Measured as the			ONLY one box):	Bank
2 > 4.0 meters	(> 13') <b>[30 pts]</b> m. (> 9' 7''- 13') <b>[25 pts]</b>		] >1.0 m, −1.5 m (>3'3 ] ≤1.0 m (≤3'3")[5 pd	"- 4" 8") [15 pts]	Wid Max=
	m (> 4' 8" - 9' 7") [20 pts]		n (n india (n india i India india	3.5	
<ul> <li>A start of second se Second second sec</li></ul>					
□ >1.5m = 3.0	s Fluctuates due	to sinuasity	AVERAGE BA	NKFULL WIDTH (meters)	
□ >1.5m = 3.0	s. Fluctuates due		and the second	NKFULL WIDTH (meters)	
☐ >1.5m = 3.0 COMMENT	ARIAN ZONE AND FLOOD	This information PLAIN QUALITY &	i <u>must</u> also be completed NOTE: River Leff (L) and R	NKFULL WIDTH (meters)	
☐ >1.5m = 3.0 COMMENT RIP. <u>RI</u> P.		This information PLAIN QUALITY & FLOODPLAIN QUAL L R (Most Pred	i <u>must</u> also be completed NOTE: River Leff (L) and R	NKFULL WIDTH (meters)	
□ >1.5m-30 COMMENT RIP L R L R ( ) 2 2 1	ARIAN ZONE AND FLOOD! PARIAN WIDTH Per Bank) Vide >10m	This information PLAIN QUALITY & FLOODPLAIN QUAL L R (Most Pred Mature Fo	n <u>must</u> also be completed NOTE: River Left (L) and F <u>LITY</u> dominant per Bank) rest, Wetland	NKFULL WIDTH (meters)	
□ > 1.5m - 30 COMMENT RIP L R Q Q N I I I T	ARIAN ZONE AND FLOOD! PARIAN WIDTH Per Bank)	This information PLAIN QUALITY & FLOODPLAIN QUAL L R (Most Prev Mature Fo Mature Fo Field	n <u>müst</u> also be completed NOTE: River Leff (L) and F <u>LITY</u> dominant per Bank)	NKFULL WIDTH (meters)	•
□ >1.5m-30 COMMENT RIP 上 R 反 反 1 □ □ 1	ARIAN ZONE AND FLOOD! PARIAN WIDTH Per Bank) Vide >10m ∕oderate 5-10m	This information PLAIN QUALITY & FLOODPLAIN QUAL L R (Most Pred D Mature Fo Mature Fo Field D Residentia	a <u>must</u> also be completed NOTE: River Left (L) and F <u>ITY</u> dominant per Bank) rest, Wetland Forest, Shrub or Old al, Park, New Field	NKFULL WIDTH (meters)	
□ >1.5m-30 COMMENT RIP 2 2 2 2 2 2 2 2 2 2 1 2 1 1 1 1 1 1 1 1	ARIAN ZONE AND FLOOD! PARIAN WIDTH Per Bank) Vide ≥10m /joderate 5-10m	This information PLAIN QUALITY & <u>FLOODPLAIN QUAI</u> L R (Most Pre- D Mature Fo Mature Fo Field Residentia D Fenced Pa	n <u>müst</u> also be completed NOTE: River Left (L) and F <u>LTY</u> dominant per Bank) rest, Wetland Forest, Shrub or Old al, Park, New Field: asture	NKFULL WIDTH (meters)	e ion ,
□ > 1.5m - 3.0 COMMENT RIP 2 2 2 2 2 3 2 3 3 3 4 5 3 3 3 4 5 5 5 5 5 5 5 5 5 5 5	ARIAN ZONE AND FLOOD! PARIAN WIDTH Per Bank) Vide >10m Aoderate 5-10m Iarrow <5m Ione	This information PLAIN QUALITY & <u>FLOODPIAIN QUAI</u> L R (Most Pre- D Mature Fo Mature Fo D Residentia D Residentia D Fenced Pro- Field	n <u>must</u> also be completed NOTE: River Leff (L) and F <u>LTY</u> dominant per Bank) rest, Wetland Forest, Shrub or Old al, Park, New Field: asture Lossed Contained	NKFULL WIDTH (meters)	e ion ,
□ > 1.5 m - 3.0 COMMENT RIP 2	ARIAN ZONE AND FLOOD! PARIAN WIDTH Per Bank) Vide > 10m Addetate 5-10m Narrow <5m Narrow <5m Narrow <5m Narrow <5m NMENTS Section C VW REGIME (Af Time of Eve am Flowing	This information PLAIN QUALITY A FLOODPLAIN QUAL L R (Most Pred D Mature Fo Mature Fo Mature Field D Residentia D Fenced Pr Field D Fenced Pr Field Auation) (Check ONLY	n <u>uist</u> also be completed NOTE: River Leff (L) and F <u>LTY</u> dominant per Bank) rest, Wetland Forest, Shrub or Old al, Park, New Field asture <u>Lrests ch</u> ( <u>orthonoc</u> A one box); Moist Channe	NKFULL WIDTH (meters)	
□ > 1.5 m - 3.0 COMMENT RIP L R ( S Ø Ø V □ □ r □ □ r C 0 FLC Strei Strei Sub	ARIAN ZONE AND FLOOD! PARIAN WIDTH Per Bank) Vide > 10m Moderate 5-10m Narrow <5m None VMENTS <u>Section C</u> VM REGIME (Af Time of Eve am Flowing surface flow will isolated poor	This information PLAIN QUALITY A <u>FLOODPLAIN QUAL</u> L R (Most Pred D Mature Fo XI X Immature Field D Residentia Field Fenced P. Fenced P. Fenced P. Auation) (Check ONLY of (Interstitial)	a <u>must</u> also be completed NOTE: River Left (L) and F <u>ITF</u> dominant per Bank) rest, Wetland Forest, Shrub or Old al, Park, New Field asture (	NKFULL WIDTH (meters)	
□ > 1.5m - 3.0 COMMENT RIP L R ( V V V □ □ r □ 0 r 0 0 r CO Stres CO Stres CO	ARIAN ZONE AND FLOOD! PARIAN WIDTH Per Bank) Vide > 10m Aodetate 5-10m Narrow <5m Ione VMENTS <u>Section</u> DW REGIME (Af Time of Eve am Flowing surface flow with isolated poor MMENTS <u>Stechon</u> UOSITY (Number of bends)	This information PLAIN QUALITY & FLOODPLAIN QUAL L R (Most Prec D Mature Foo X) X Immature Field D Residentit D Residentit Field Fonced Pr fonced	a <u>must</u> also be completed NOTE: River Left (L) and F <u>ITY</u> dominant per Bank) rest, Wetland Forest, Shrub or Old al, Park, New Field al, Park, New Field al, Park, New Field al, Park, New Field asture <u>Lassed</u> ( <u>Ortains 4</u> one box): <u> </u>	NKFULL WIDTH (meters)	
□ > 1.5m - 3.0 COMMENT RIP L R ( V V V □ □ r □ 0 r 0 0 r CO FLC Strei CO Strei CO	ARIAN ZONE AND FLOOD! PARIAN WIDTH Per Bank) Vide > 10m Aodetate 5-10m Narrow <5m Ione VMENTS <u>Section</u> DW REGIME (Af Time of Eve am Flowing surface flow with isolated poor MMENTS <u>Stechon</u> UOSITY (Number of bends)	This information PLAIN QUALITY & FLOODPLAIN QUAL L R (Most Pred D Mature Foo X) X Immature Field D Residentia D Residentia Forced Proceed Proc	a <u>must</u> also be completed NOTE: River Left (L) and F <u>ITY</u> dominant per Bank) rest, Wetland Forest, Shrub or Old al, Park, New Field asture <u>Crossed</u> ( <u>Ortance</u> A one box); ☐ Moist Channel Ory channel, Crith TOWALDS f	NKFULL WIDTH (meters)	

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June 20, 2006 Revision

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	ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):
	QHEI PERFORMED? - C Yes No QHEI Score (17 Yes, Attach Completed QHEI Form)
	DOWNSTREAM DESIGNATED USE(S)
	WWH Name: Distance from Evaluated Stream      Distance from Evaluated Stream
	CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
	MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
	USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order
	county: Paulding Township/city Benton
	MISCELLANEOUS
	Base Flow Conditions? (Y/N): X Date of last precipitation: 9/19/15 Quantity:
	Photograph Information:
	Elevated Turbidity? (Y/N): Canopy (% open): <u>20 % Ope</u>
	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/)       pH (S.U.)       Conductivity (umbos/cm)
	Is the sampling reach representative of the stream (Y/N) Y. If not, please explain:
	Additional comments/description of pollution impacts:
	<u>i na serie de la construcción de la cons</u>
	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
,	
	ORAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
	Include important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location
منید : یہ <u>سب</u> سر	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 Trastion
CM	Stub A LOOK CON STATE
<u></u>	
10	A ANNA A A A A A A A A A A A A A A A A
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	1719 USAN (19MAR COSTAN)
and the second second	PHWH Form Page - 2]

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Stream & Location: S	tierm H	ssessment Fi		RM: Dat	e:01/24/15
	1((2)) 14	Scorers Full Nam	· · ``		
River Code: -	- STORET #:	Lat/Lo	na.	/8	Office verifi locati
1 SURSTRATE Check O	NLY Two substrate TYPE BO	<u> </u>			
	% or note every type present			E (Or 2 & average)	LITY
D BLDR /SLABS [10]		N [4] L	LIMESTONE [1]		
		Z	/TILLS [1] ] WETLANDS [0]		RATE [-1] Sub:
COBBLE [8]     GRAVEL [7]		<u>60</u> E	HARDPAN MI		ran 👘 🕴 🖌
			] SANDSTONE [0] [0]		NSIVE [-2] RATE [-1] May
	PFS: 4 or more [2] slud	ge from point-sources)	LACUSTURINE [0]		
Comments	[2] 3 or less [0]	-	SHALE [-1] COAL FINES [-2]		<b>21</b>
					<u></u>
2] INSTREAM COVER	Indicate presence 0 to 3: 0-A quality; 2-Moderate amounts,	bsent; 1-Very small amou	nts or if more common of		IOUNT
quality; 3-Highest quality in n diameter log that is stable, w	noderate or greater amounts	<i>ίe</i> σ i vervi latoe bouldets i	in deep or fast water, la		(Or 2 & average) VE >75% [11]
UNDERCUT BANKS [		S > 70cm [2] OXI	BOWS, BACKWATERS		TE 25-75% [7]
1 OVERHANGING VEG	a ta se ta serie se se Ta se	nang berupakan di kabalah di kaba			5-<25% [3] ABSENT <5% [1]
SHALLOWS (IN SLOV ROOTMATS [1]	WWATER) [1] BUUL	DERS [1] _ LOO	3S OR WOODY DEBR		Cover
Comments					Maximum ((
					20
3] CHANNEL MORPHO		category (Or 2 & average			
	LOPMENT CHANI	NELIZATION			
∐ HIGH [4] ∐ EAC		RED [4]	MODERATE [2]		
	R [3] 🛛 🗌 RECOVE	이 같은 것 같은 것이 있는 것이 있다. 이 가지 않는 것이 있는 것이 있다. 이 것이 있는 것이 있는 것이 있는 것이 있는	[]/LOW [1]		
I NONE [1] 🗹 PO	OR DISCOUNT OF REGENT	OD NO DECOVERY M	a de la companya de la		Channel 🚺
(a) Sector on the gradient of the sector	n a statistik in the source of	OR NO RECOVERY [1]	A BULLING BURLE OF THE REAL		Channel Maximum
Comments	anaan∎ana ka ing ang ang ang ang ang ang ang ang ang a				Maximum 20
Comments 4] BANK EROSION AN	ID RIPARIAN ZONE CI	eck ONE in each calegory			Maximum 20
Comments 4] BANK EROSION AN River right looking downstream	ID RIPARIAN ZONE CH RIPARIAN WIDT	eck ONE in each category	D PLAIN QUALITY	Y i ir	Maximum 20
Comments 4] BANK EROSION AN River right looking downstream L R EROSION	ID RIPARIAN ZONE CI	Heck ONE in each category	D PLAIN QUALITY AMP [3]		Maximum 20 TION TILLAGE [ INDUSTRIAL [0]
Comments 4] BANK EROSION AN River right looking downstream REROSION CONCE   LITTLE [3] MODERATE [2]	ID RIPARIAN ZONE CI RIPARIAN WIDT WIDE > 50m [4] MODERATE 10-50m [ NARROW 5-10m [2]	INCK ONE in each calegory FLOO FLOO FOREST, SW I SHRUB OR C I RESIDENTIAL	D PLAIN QUALIT' AMP [3] DLD FIELD [2] , PARK, NEW FIELD [1	Y	Maximum 20 TION TILLAGE [ INDUSTRIAL [0] DNSTRUCTION [0]
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FJ MEASUREMENTS bankfull max. depth floodprone x<sup>2</sup> width 加いた bankfull X depth X bankfull width entrench ratio Comment RE: Reach consistency/ Is reach typical of steam?, Recreation/ Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc. Legacy Tree: max. depth W/D ratio x depth X width it eaters donated LOGGING / IRRIGATION / COOLING FALSE BANK / MANURE / LAGOON HARDENED / URBAN / DIRT&GRIME BMPs-CONSTRUCTION-SEDIMENT NATURAL / WETLAND / STAGNANT WWTP / CSO / NPDES / INDUSTRY ACID / MINE / QUARRY / FLOW ATMOSPHERE / DATA PAUCITY **BANK / EROSION / SURFACE** WASH H20 / TILE / H20 TABLE PARK / GOLF / LAWN / HOME CONTAMINATED / LANDFILL EJ ISSUES (J NUC ÷ Stream Circle some & COMMENT 40 Jechan WA DET FLOOD CONTROL / DRAINAGE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA MODIFIED / DIPPED OUT / NA RELOCATED / CUTOFFS MOVING-BEDLOAD-STABLE IMPOUNDED / DESICCATED YOUNG-SUCCESSION-OLD SPRAY / SNAG / REMOVED DT MAINTENANCE Multhny. **ARMOURED / SLUMPS** LEVEED / ONE SIDED **SLANDS / SCOURED** É annics INVASIVE MACROPHYTES BIAESTHETICS INUISANCE ALGAE SLUDGE DEPOSITS **JEXCESS TURBIDITY** POOL: 0>100ft20>3ft AREA DEPTH NUISANCE ODOR <del>ا</del>لم TRASH / LITTER R F F F F FOAM / SCUM **OIL SHEEN** CJ RECREATION 202 П Ę E 1st --sample pass-- 2nd п 1st-sample pass-2nd STAGE ' C > 70 cm/ CTB CLARITY ∏∕20-<40 cm AJ SAMPLED REACH 🗌 40-70 cm ∐ < 20 cm Check ALL that apply Nossed 2 CISCLOSED □ > 85%- OPEN CANOPY DISTANCE □ 55%-<86% □ 10%-<30% ⊡⁄30%~55% 0.2 Km 0.2 Km 0.15 Km C BOAT WADE L. LINE OTHER 0.12 Km METHOD OTHER meters

Stream Drawing:

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	NAMERICCATION STREA	171 AA MBER	RIVER BASIN MAUMI	EF-RIVER.DA	AINAGE AREA (m/3)	0.46
LENG	SITE NU	000 LAT. <u>41</u>	1295 LONG, -84.765	RIVER CODE	RIVER MILE	
	$\frac{9 \partial \partial  15}{15} = \text{scorer}_{1}$ TE: Complete All items On T					uctions
			ANNEL CRECOVERED			
MOI	DIFICATIONS:					
	(Max of 40). Add lefe) number E BLDR SLABS [16 pis] BOULDER (>256 mm) [16	of significant substra <u>PERCENT</u>			of boxes A & B. <u>PERCENT</u>	HHEI Metric Points Substrate
			G G FINE DETRITUS			aunarraio Max = 40
	GRAVEL (2-64 mm) (9 pls		図口 MUCK [8 pis] 口口 ARTIFICIAL [3 p		50	5
	Total of Percentages of Bidr Sigbs, Boulder, Cobble, B RE OF TWO MOST PREDOMINA		(A) 3	MBER OF SUBST	(B)	Ă≁B
2.			ool depth within the 61 meter (2 r slom Waler pipes) (Check O/		ach at the time of	Poct Depth Max = 30
Ø	<ul> <li>&gt; 30 centimelers [20 pts]</li> <li>&gt; 22.5 - 30 cm [30 pts]</li> </ul>		0 > 5 cm - 10 cm 0 < 5 cm [5 pts]			20
Ē	>10 - 22.5 cm [25 pts]			R MOIST CHANNE	70	
-	COMMENTS		MAXIMU		centime(ers): <b>Ferenal</b>	
	BANK FULL WIDTH (Measur > 4.0 meters (> 13) [30 pis] > 3.0 m - 4.0 m (> 9' 7' - 13) [2! > 1.5 m - 3.0 m (> 4' 8' - 9' 7') [2	i þls]		:heck ONLY one [ (> 3' 3" - 4' 8") [15 j ) [5 pts]	(e)	Bankfull Width <u>Max≓30</u>
	COMMENTS		AVERAG	e gankfull ŵi	OTH (moters)	[ 15 ]
<u>موجوع</u>	<u></u>		niomation <u>must</u> also be com	pleted	nand <sub>an</sub> tailee <mark>that a sabara</mark>	
	NIPARIAN ZONE AND <u>RIPARIAN WIDTH</u>		ALITY &NOTÉ: River Lott (L) <u>Plain Quality</u>	and Right (R) as io	ooking downstream 🕯	
	. L. R. (Per Bank) D. D. Wide >10m	ůů ůů	(Most Predeminant per Bank) Mature Forest, Weiland		Conservation Tillage	
	🗍 🗐 🛛 Moderate 5-10m	00	immalure Forest, Shrub or Old Field		Urban or Industrial	
	K X Narrow <5m □ □ None COMMENTS	00 00	Residential, Park, New Field Fenced Pasture		Open Pasture, Row Crop Mining or Construction	-
	FLOW REGIME (Al Tin Stream Flowing Subsurface flow with iso ECOMMENTS		🖓 Molst Ci	hannel, isolated po nnel, no water (Ep	els, no ilow (intermilitent) hemeral)	· ,

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June 30, 2008 Revision

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PHWR Form Page - 1

	ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed);
	AHEI PERFORMED7 - 🗍 Yes 🙀 No QHEI Score (If Yes, Attach Completed QHEI Form)
	DOWNSTREAM DESIGNATED USE(S)
	CWH Name: Distance from Evaluated Stream     Distance from Evaluated Stream     Distance from Evaluated Stream
	MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
	USGS Quadrangle Name: PATINE, OHIONRCS Soll Map Page;NRCS Soll Map Bircam Order
	County: PAULDING TOwnship/City: HARRISON TWP
	MISCELLANEOUS
	Base Flow Conditions? (YN); Y Date of last precipitation: UNKNDW N Quantity:
	Phetograph Information: <u>VES</u>
•	- Elevated Turbidity? (Y/N): <u>N</u> Canopy (% open): <u>100 %</u>
· ,	Were samples collected for water chemistry? (Y/N): N (Note tab sample no. or id, and attack results) Lab Number:
	Fleid Measures; Temp (°C) Dissolved Oxygen (mg/) pH (&U) Conductivity (umhos/cm),
	is the sampling reach representative of the stream (YAV). Y Irrot, please explain:
	,
	Additional comments/description of pollution impacts: NUNE
	BIOTIC EVALUATION
	Performed? (Y/N):
	Pencentiouri (174), (iii 199, Head a base valient, Youche Constructs spacing, You head valient Hadital Substant Ministry (174), [B number. Include appropriate (lefd data sheets from the Primary Headwater Habital Assessment Manual)
	Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
	Frogs or Tadpoles Observed? (Y/N) Y Voucher? (Y/N) N Aqualic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) 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 marrative description of the stream's location
	include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location $RON$ CROP
•	include important landmarks and other features of interest for site evaluation and a marrative description of the stream's location
	Include Important landmarks and other features of Inferest for site evaluation and a neurative description of the stream's location ROW CRUP
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	Include Important landmarks and other features of Interast for site evaluation and a neuralive description of the stream's location ROW CROP MA MM VEGETATION MA FLOW MM MM MM MM MM

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Sanah Malanda ang Kabupatèn Malawakén Makékéké na harang kékéké di Sanahan kadané (Malanda) na saharé sa sa ka

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	Ohio Rapid Assessment Metho 10 Page Form for Wetland Cat	
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

#### Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <u>http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</u>

Background Information	
JAMIE BERARDINELU	
Date: 9/22/15	
ATTILLATION THE MANNIK SMITH GROUP	
Address: 1800 INDIAN WOOD CIRCLE, MAUMEE	OHIO
Phone Number: 419.891.2222	
e-mail address: JBERARDINECLIE MANNIK SMITHEROUP. CON	~~{
Name of Wetland: WETLALTS AA	·
Vegetation Communit(les):	
HGM CLASS (05): RIVERINE - HEADWATER DEPRESSION	(A)
Location of Welland: Include map, address, north arrow, landmarks, distances, roads, etc.	
N WETCAND AA NETLAND AA WETLAND AA	
Lat/Long or UTM Coordinale	
USGS Quad Name	OH SPB PAYNE, OH
Township	PAULIDINH HARRISON
Section and Subsection	TINRIE
Hydrologic Unit Code	04100007
Site Visli	9/20/15
National Welland Inventory Map	
Onio Wetland Inventory Map	4-1)
Soil Survey	YES
Delineation report/map	YES

# Background Information

-

Netland Size	acres, hecta	TLAND AA	<u> </u>		
Sketch: Inclu	ide north arro	res): $\sim$ O · $ $ Ack w, relationship with other surface	waters, vegetation zones, etc.		
	SEE	DELINEATION	TIGURE		
-					
				•	
			<u> </u>		
Comments, I	Varrative Disc	ussion, Justification of Category	Unanges:		
	Non	F.			
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	ore: )		Cate		

#### Scoring Boundary Worksheet

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INSTRUCTIONS. The initial step in completing the ORAM is 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 "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous 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. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, 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 patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or milroad 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 Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	$\checkmark$	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human- induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or fails, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wellands or parts of a single wetland.	$\checkmark$	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	~	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, rairoad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	$\checkmark$	
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 boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	$\checkmark$	

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

## **Narrative Rating**

1.1.2

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on Information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <u>http://www.dnr.state.oh.us/dnap</u>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetfland types. Note: "Critical habitat" is legally defined in the Budangared Species Act 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 3 Headquarters 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.

ŧ	Question	Circle one	
[	Critical Habitat, is the welland in a township, section, or subsection of	YES	NO
	a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical	Welland should be	Go to Question 2
	habitat" for any threatened or endangered plant or animal species?	evaluated for possible	
	Note: as of January 1, 2001, of the ferterally listed endangered or	Category 3 status	
	threatened species which can be found in Ohio, the indiana Bal has		1
	had critical habital designated (50 CFR 17.95(a)) and the piping plover	Go to Question 2	
	has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES	(NO.)
2	Threatened or Endangered Species, is the welland known to contain an individual of, or documented occurrences of federal or state-listed	160	
	threatened or endangered plant or animal species?	Welland is a Calegory	Go to Question 3
		3 welland.	
		Go to Question 3	NO
	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	100	
	Naturai Hentage Database as a high quality webahor	Welland is a Category	Go to Question 4
	·	3 wetland	
		Go to Question 4	
	Significant Breeding or Concentration Area. Does the welland	YES	(NO)
	contain documented regionally significant breeding or nonbreeding		
	waterfowl, neotropical songbird, or shorebird concentration areas?	Weiland is a Calegory	Go to Question 5
		3 welland	
		Go to Question 5	125
5	Category 1 Wetlands. Is the welland less than 0.5 hectares (1 acre)	YES	(NO)
	in size and hydrologically isolated and either 1) comprised of		Go to Question 6
	vegetation that is dominated (greater than eighty per cent areal cover)	Wetland is a Category 1 wetland	Go to Question o
	by Phalarts arundinacea, Lythrun salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or	I WELIAITU	1
	2) an acidic point created of excavated on minet ratios that has had been on pegetation?	Go to Question 6	
3	Bons. Is the welland a peal-accumulating welland that 1) has no	YES	(NO)
-	significant inflows or outflows, 2) supports actionabilic messes,		
	narticularly Sphacoum spp., 3) the acidophilic mosses have >30%	Welland is a Calegory	Go to Question 7
	cover, 4) at least one species from Table 1 is present, and 5) the	3 wetiand	
	cover of invasive species (see Table 1) is <25%?	Go to Question 7	
7	Fens, is the wetland a carbon accumulating (peat, muck) wetland that	YES	(NO)
-	is saturated during most of the year primarily by a discharge of free		
	1 flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0)	Wetland Is a Category	Go to Question 8
	and with one or more plant species listed in Table 1 and the cover of	3 wetland	
	invasive species listed in Table 1 is <25%?	Go to Question 8a	
Ba	"Old Growth Forest." Is the walland a forested welland and is the	YES	(NO)
ц	forest characterized by, but not limited to, the following characteristics;		
	overstory canopy trees of great age (exceeding at least 50% of a	Wetland is a Calegory	Go to Question 8
	projected maximum attainable age for a species); little or no evidence	3 wetland.	1
	of human-caused understory disturbance during the past 80 to 100	Go to Question 8b	
	years; an all-aged structure and mullilayered canoples; aggregations of	GO LO GLUBALION OU	
	canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?		ł

in the statement of the state

Bb	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
	50% or more of the cover of upper forest canopy consisting of deciduous frees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	3
)a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	NO On the Olynomian (7)
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the welland's hydrology result from measures designed to prevent erosion and the loss of equatic plants, i.e. the welland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Welland shouid be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
	i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with take and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, niver mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	Go to Question 10
9d	Does the welland have a predominance of native species within its	YES	NÓ
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland Is a Category 3 wetland	Go to Queslion 9e
		Go to Question 10	
9e	Does the welland have a predominance of non-native or disturbance	YES	'NO
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Calegory 3 status	Go to Question 10
		Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the welland be characterized by the following description: the welland has a sandy substrate with interspersed organic matter, a water table often within	Wetland is a Category 3 wetland.	Go to Question 11
	several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohlo Department of Natural Resources Division of	Go to Question 11	
	Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.		
11	Relict Wet Prairies Is the wetland a relict wet prairie community	YES	NO
	dominated by some or all of the species in Table 1. Extensive prairies	Welland should be	Complete
	were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erle, Huron, Lucas, Wood Counties),	evaluated for possible Category 3 status	Quanilitative Rating
	and portions of western Ohio Countles (e.g. Darke, Mercer, Mlami, Montgomery, Van Wert etc.).	Complete Quantitative Rating	

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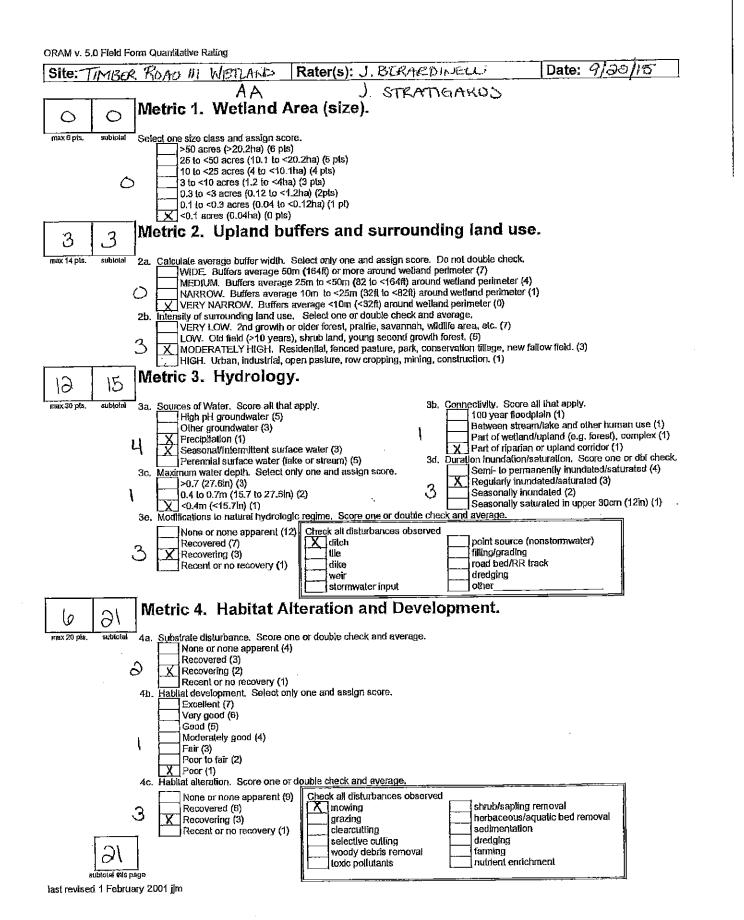
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invasive/exotic spp	fen species	bog species	Dak Opening spectes	wet prairie species
Tythrun salicaria Myriophyllun spicatum Najas minor Phalar is arundinacea Phragmites australis Potomogeton crispus Ranunculus ficaria Rhannus frangula Typha angustifolia Typha xglauca	Zpgademus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis Carex sterilis Carex sterilis Carex stricia Deschampsia caespitosa Eleocharis rostellata Eriophorum vitidicarinotum Genitanopsis syp. Lobelia halani Parnassia glauca Potentilla fruticosa Riamnus alnifolia Rhymchospora capillacea Salix candida Salix nyricoides Salix serissima Solidago ohioensis Tofieldia glulhosa Triglochin maritimum	Calla palusiris Carex adantica var. capillacea Carex eclinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Ertophorum virginicum Larix larichta Nemopanthus mucronatus Schechzeria palusiris Sphagnunt spp. Vaccinium macrocarpon Vaccinium macrocarpon Vaccinium macrocarpon Vaccinium conyvoboxum Vaccinium conyvoboxum Vaccinium conyvoboxum Vaccinium conyvoboxum Vaccinium conyvoboxum	Carex eryptolepis Carex lasiocarpa Carex stricta Cladium mariseoidex Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensi. Calamogrostis strict Carex atherode. Carex buxbauht Carex pellik Carex satwell Gentiand andrewsi Helianthus grosseserratu Liatris spicata Lysimachia quadriflor Lythrum alatun Pychanthenuan virginiama Silphium terebinthinacean Sorghastrum mutan Spartina pectinati Solidago riddelii

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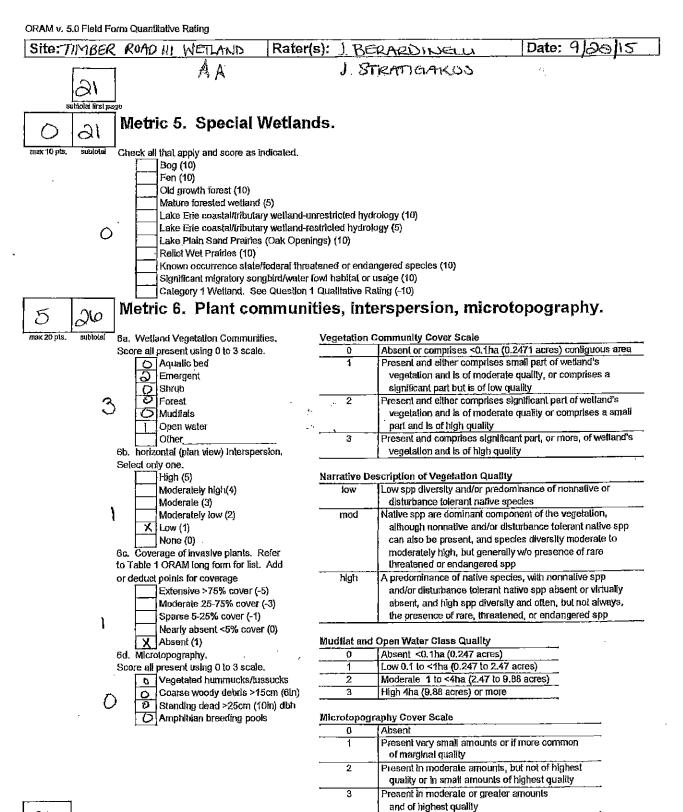
End of Narrative Rating. Begin Quantitative Rating on next page.



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End of Quantitative Rating. Complete Categorization Worksheets.

# **ORAM Summary Worksheet**

		circle	
		answer or	
		insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Calegory 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wellands	YES NO	If yes, Category 1,
	Question 6. Bogs	YES (NO)	If yes, Category 3,
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b, Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e, Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
i wing	Metric 2. Buffers and surrounding land use	3	
	Metric 3. Hydrology	la	
	Metric 4. Habitat	6	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	26	Category based on score breakpoints

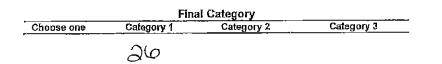
Complete Wetland Categorization Worksheet.

Choices	Circle one	~	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES ( Welland is categorized as a Category 3 wetland		Is quantitative rating score <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the welfand using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over- categorized by the ORAM
Did you answer "Yes" to any of the following questlons: Namative Rating Nos. 1, 8b, 9b, 9e, 11	YES Welland should be evaluated for possible Category 3 status		Evaluate the welland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the welland is determined to be a Category 3 welland using either of these, it should be categorized as a Category 3 welland. Detailed biological and/or functional assessments may also be used to determine the welland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the welland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM.
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 weiland?	YES Wetland is assigned to the appropriate category based on the scoting range	NO	If the score of the weiland is located within the scoring range for a particular category, the welland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the <i>"gray zone"</i> for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Dees the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES (Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a welland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

# Wetland Categorization Worksheet

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# End of Ohio Rapid Assessment Method for Wetlands.

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

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Project/Site: _Timber Road III			City/County: Paul	lding	Sa	mpling Date: 9/	22/15
Applicant/Owner: EDP Renew	ables	• <b>200</b> 0		State:		Sampling Point:	
Investigator(s): J. Stratigakos,	J.Berardinelli	•	Section, Township				
Investigator(s):	Riparian Frir			, range Col	ncave		(0()) -
Landform (hillslope, terrace, etc.			Local relief (concave,	, convex, none):		Siope	(%):
Subregion (LRR or MLRA): LRI		_ Lat: <u>1347062</u>	<u>-</u>	Long: 5308370.6		Datum:	
Soil Map Unit Name: Hoytville	silty clay, 0 to	percent slope (	HtA)		/l classificatio	n: <u>None</u>	
Are climatic / hydrologic conditio	ins on the site typ	ical for this time of	fyear? Yes X	No (lfno,e»	plain in Rema	arks.)	
Are Vegetation, Soil				Are "Normal Circum			No
Are Vegetation, Coll			•	(If needed, explain a			
					•		
SUMMARY OF FINDING	S – Attach s	ite map showi	ng sampling po	int locations, tra	ansects, in	nportant fea	tures, etc.
Hydrophytic Vegetation Prese	nt? Yes	× No		pled Area			
Hydric Soil Present?		× No	within a W		es <u>×</u>		
Wetland Hydrology Present?		× No	If yes, option	onal Wetland Site ID:	Wetland A	A	
Remarks: (Explain alternative	procedures here	or in a separate re			<u> </u>		
HYDROLOGY							
Wetland Hydrology Indicato						s (minimum of tv	vo required)
Primary Indicators (minimum (	of one is required	; check all that app	oly)		rface Soil Cra		1
Surface Water (A1)		Water-Stain	ied Leaves (B9)		ainage Patter		
High Water Table (A2)		Aquatic Fau	ına (B13)		oss Trim Lines		
Saturation (A3)		Marl Depos				ter Table (C2)	
Water Marks (B1)			Sulfide Odor (C1)		ayfish Burrow		(20)
Sediment Deposits (B2)			hizospheres on Living			le on Aerial Imag	
Drift Deposits (B3)			f Reduced Iron (C4)			sed Plants (D1)	
Algal Mat or Crust (B4)			Reduction in Tilled S	• • • • • • • • • • • • • • • • • • • •	eomorphic Por allow Aquitar		
Iron Deposits (B5)	ol Imagood (D7)	Thin Muck S	ain in Remarks)		crotopograph	• •	
Inundation Visible on Aer	-				C-Neutral Te		
Sparsely Vegetated Cond Field Observations:			······	<u></u> _'			
	Voo No	X Dopth (inc	hes):				
Surface Water Present? Water Table Present?			hes):				
Saturation Present?		Depth (inc		Wetland Hydrolo	av Present?	<sub>Yes</sub> X	No
(includes capillary fringe)							
Describe Recorded Data (stre	am gauge, moni	oring well, aerial p	hotos, previous inspe	ctions), if available:			
Remarks:			····				<u> </u>
(internet)							

and a summer of the APA ( ) and the second state was the Strength

VEGETATION - Use	e scientific names of plants.
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				······································
Tree Stratum (Plateiza)		Dominant Species?		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)				Number of Dominant Species That Are ORL EACW or EAC: $2$ (A)
1				That Are OBL, FACW, or FAC: (A)
2			. <u> </u>	Total Number of Dominant
3				Species Across All Strata:2 (B)
				Dereent of Deminant Species
4				Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
5		,	·	
6			·	Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
	0	= Total Co	ver	OBL species x 1 =0
Quality = 20 km sh Other hanne (Diet einer				FACW species x 2 =0
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =0
1		·		FACU species $x 4 = 0$
2				UPL species
3				Of L species
4				Prevalence Index = B/A =
5				
6		- <u> </u>		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Co	ver	2 - Dominance Test is >50%
Line Stratum (Blat size)		-		3 - Prevalence Index is ≤3.0 <sup>1</sup>
Herb Stratum (Plot size:) Phalaris arundinacea	50	×	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
I				data in Remarks or on a separate sheet)
2. Carex sp.	40	<u> </u>	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Juncus effusus	10			1. If the first of the set of the
4. Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Asclepias syriaca	5		UPL	
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
				and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines – All woody vines greater than 3.28 ft in
	115	_ = Total C	over	height.
		_		
Woody Vine Stratum (Plot size:)				
1				-
2				-
3				_ Hydrophytic
4.				Vegetation
·*·				Present? Yes X No
		_ = Total C	over	
Remarks: (Include photo numbers here or on a separate	e sneet.)			

SOIL

# 

Sampling Point: \_\_\_\_\_\_SP-AA-1\_\_\_\_

 $1 \leq 1 \leq N_{\rm ex}$ 

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	ription: (Describe f	o the depti				or confirm	the absence of	indicators.)
Depth (inches)	<u>Matrix</u> Color (moist)	%	Redo Color (moist)	<u>x Features</u> %	s Type <sup>1</sup> _	Loc <sup>2</sup>	Texture	Remarks
(inches)			Color (moist)	%	ype			
0-12	10YR 3/1	_100 _					Clay	Moist
								<u></u>
					·			
<sup>1</sup> Type: C=C	oncentration, D=Dep	etion. RM=	- Reduced Matrix. M	- S=Masker	d Sand Gr	ains.	<sup>2</sup> Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil								r Problematic Hydric Soils <sup>3</sup> :
Histosol			Polyvalue Belo	w Surface	(S8) (LR	RR,		* (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 1498			•		airie Redox (A16) (LRR K, L, R)
	istic (A3)	-	Thin Dark Surf	ace (S9) (I	LRR R, M	LRA 149B)	5 cm Muc	ky Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)	-	Loamy Mucky			(, L)		ace (S7) ( <b>LRR K, L</b> )
	d Layers (A5)	-	Loamy Gleyed		2)			Below Surface (S8) (LRR K, L)
·	d Below Dark Surface	e (A11)	Depleted Matri	• •				Surface (S9) (LRR K, L)
	ark Surface (A12)	-	Redox Dark Su					ganese Masses (F12) (LRR K, L, R)
	/lucky Mineral (S1) Gleyed Matrix (S4)	-	Depleted Dark Redox Depress		-7)			: Floodplain Soils (F19) ( <b>MLRA 149B</b> ) odic (TA6) ( <b>MLRA 144A, 145, 149B</b> )
	Redox (S5)	-						ent Material (F21)
	Matrix (S6)							llow Dark Surface (TF12)
	Inface (S7) (LRR R, M	ILRA 149B	)				· ·	(plain in Remarks)
	f hydrophytic vegetal		iland hydrology mu	st be pres	ent, unles	s disturbed	or problematic.	
Restrictive	Layer (if observed):							
Type:		_						
Depth (in	ches):						Hydric Soil Pr	resent? Yes <u>×</u> No
Remarks:								
ł								
		-	-					· · · · · · · · · · · · · · · · · · ·

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site:	City/County: Paulding	Sampling Date: <u>9/22/15</u>
Applicant/Owner: EDP Renewables	State: Ohio	Sampling Point: SP-AA-1
	Section, Township, Range: Harrison Twp	
Landform (hillslope, terrace, etc.): Riparian Fringe Subregion (LRR or MLRA): LRR L Lat: 13470 Soil Map Unit Name: Hoytville silty clay, 0 to 1 percent slop Are climatic / hydrologic conditions on the site typical for this tim	Local relief (concave, convex, none):         Concave           62         Long:         5308370.6           pe (HtA)         NWI classifier	Datum: OH SP 83 cation: None
Are Vegetation, Soil, or Hydrology signi		
Are Vegetation, Soil, or Hydrology natu	-	
SUMMARY OF FINDINGS – Attach site map sho		
Hydrophytic Vegetation Present?     Yes X     No       Hydric Soil Present?     Yes X     No	within a Wetland? Yes <u>×</u>	No
Wetland Hydrology Present? Yes X No Remarks. (Explain alternative procedures here or in a separa		
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that	apply) Surface Soi	I Cracks (B6)
		atterns (B10)
	Fauna (B13) Moss Trim I	
		Water Table (C2)
	en Sulfide Odor (C1) Crayfish Bu	
		/isible on Aenal Imagery (C9) Stressed Plants (D1)
		c Position (D2)
	uck Surface (C7) Shallow Aq	
		raphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	× FAC-Neutra	al Test (D5)
Field Observations:		
Surface Water Present? Yes No X Depth		
Water Table Present? Yes No X_ Depth		~
Saturation Present? Yes X No Depth (includes capillary fringe)	(inches): Surface Wetland Hydrology Prese	ent? Yes <u>×</u> No
Describe Recorded Data (stream gauge, monitoring well, aer	ial photos, previous inspections), if available:	
Demaker		
Remarks:		
· ·		
	·	

VEGETATION – Use scientific names of plan
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and the statement of th

	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	<u>Species?</u>	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
3				Total Number of Dominant Species Across All Strata:2 (B)
4				Percent of Dominant Species
5	·			That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	•	= Total Co	wor	OBL species         x1 =         0
		- Total Ct	WCI	-
Sapling/Shrub Stratum (Plot size:)				FACW species X 2
1	· <u> </u>			
2				1 ACO species X 4 =
3				UPL species x 5 =
				Column Totals: (A) (B)
4				Brownlands Index - B/A -
5	·			Prevalence Index = B/A =
6		. <u> </u>		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Co		✓ 2 - Dominance Test is >50%
			IVEI	$\ldots$ 3 - Prevalence Index is $\leq 3.0^1$
Herb Stratum (Plot size:)	- 0			4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Phalaris arundinacea	50	X	FACW	data in Remarks or on a separate sheet)
2. <u>Carex sp.</u>	40	×	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Juncus effusus	10		OBL	
Leersia oryzoides	10	-	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Asclepias svriaca	5		UPL	be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7	·			at breast height (DBH), regardless of height.
8		<u> </u>		Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb - All herbaceous (non-woody) plants, regardless
				of size, and woody plants less than 3.28 ft tall.
11	·			
12			·	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
		= Total Co	ver	noight
Woody Vine Stratum (Plot size:)				
1				
1				
2	·			
3				Hydrophytic
4				Vegetation Present? Yes X No
	0	= Total Co	wer	Present? Yes <u>×</u> No
Remarks: (Include photo numbers here or on a separate s		10001-00		
	,			

s (4) z o nasla jeznici i Dužena stanovo u 1

Sampling Point: \_\_\_\_\_\_SP-AA-1

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Profile Desc	ription: (Describe t	o the depth	needed to docur	nent the i	ndicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Features			<b>T</b> (	
(inches)	Color (moist)	<u>    %                                </u>	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>		Remarks
0-12	10YR 3/1						Clay	Moist
	<u></u>					<u> </u>		
							_	
						<u> </u>	<u> </u>	
			<u>-</u> ·					
	· · ·							
	oncentration, D=Depl	etion, RM=F	Reduced Matrix, M	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil								r Problematic Hydric Soils <sup>3</sup> :
Histosol	· /	_	Polyvalue Belo		(S8) ( <b>LR</b>	R,		ck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149B			DA 440D		airie Redox (A16) (LRR K, L, R)
	istic (A3) Sp. Sulfide (A4)	_	Thin Dark Surfa Loamy Mucky I					cky Peat or Peat (S3) (LRR K, L, R) face (S7) (LRR K, L)
	en Sulfide (A4) d Layers (A5)	_	Loamy Mucky I Loamy Gleyed			s, <b>⊑</b> /		e Below Surface (S8) (LRR K, L)
	d Below Dark Surface	e (A11)	Depleted Matrix		/			k Surface (S9) (LRR K, L)
	ark Surface (A12)	. , _	Redox Dark Su				Iron-Man	ganese Masses (F12) (LRR K, L, R)
	Aucky Mineral (S1)	-	Depleted Dark		7)			t Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)	_	Redox Depress	sions (F8)				odic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)							ent Material (F21)
	l Matrix (S6)							allow Dark Surface (TF12) xplain in Remarks)
Dark Su	Iface (S7) (LRR R, N	ILKA 149B)	,					
<sup>3</sup> Indicators o	f hydrophytic vegetat	ion and wet	land hydrology mu	st be pres	ent, unles	s disturbed	or problematic.	
	Layer (if observed):			•			T	· · · · · · · · · · · · · · · · · · ·
Type:							Į	
Depth (in	ches):						Hydric Soil P	resent? Yes <u>×</u> No
Remarks:			<u> </u>	· · · ·	n the day			
			1. C.				· · ·	
1								
1								

<b>OTHER</b> Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) :	<u>B</u>
SITE NUMBER	lons
1.       SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 40). Att4 tetal number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.         TYPE       PERCENT       TYPE         BLDR SLAB9 [18 pts]       PERCENT       TYPE         BUD BOULDER [>256 mm) [18 pts]       PERCENT       D         BEDROCK [16 pt]       D       Fine DETRITUS [3 pts]       D         BEDROCK [16 pt]       D       Fine DETRITUS [3 pts]       D         BEDROCK [16 pt]       D       CLAY or HARDPAN [0 pt]       D         BEDROCK [16 pts]       D       ARTIFICIAL [3 pts]       D         BEDROCK [10 pts]       D       ARTIFICIAL NUMBER OF SUBSTRATE TYPES:       E	HHEI Metric Points Substrato Max = 40 (8) A + B
2.       MaxImum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Aveid plange pools from road culveris or storm water pipes) (Check ONLY one box):         > 30 confineters [20 pts]       > 5 cm + 10 cm [15 pts]         > 22.5 - 30 cm [30 pts]       > 6 cm + 10 cm [15 pts]         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0 pts]         COMMENTS       MAXIMUM POOL DEPTH [centimeters]:         3.       BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box):         > 4.0 meters (> 13) j30 pte]       10 × 1.5 m (> 3 3*- 4*8*) [45 pts]         > 3.0 m - 4.0 m (> 9*7*-13) [25 pts]       > 1.0 m (≤ 3*3*) [6 pts]         GOMMENTS       AVERAGE BANKFULL WIDTH (meters)	Paol Depth Max = 30 25 Bankfull Width Max=30 20
This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY         ANOTE: River Leit (L) and Right (R) as Jooking downstream to RIPARIAN WIDTH         FLOODPLAIN QUALITY         L       R         (Per Bank)       L         R       (Per Bank)         L       R         (Moderate 5-10m       Immature Forest, Welland         Immature Forest, Shrub or Old       Immature Forest, Shrub or Old         R       Narrew <sm< td="">         Immature Forest, New Field       Immature, Row Crop         None       Immature Forest Residential, Parit, New Field         R       Residential, Parit, New Field         None       Immature Forest Residential, Parit, New Field         R       Residential, Parit, New Field         R       Residential, Parit, New Field         R       Residentis co</sm<>	
SINUOSITY (Number of bends per \$1 m (200 ft) of channel) (Check ONLY on a box): Nene 1.0 2.0 3.0 0.5 1.5 2.5 3.0 STREAM GRADIENT ESTIMATE Flat (0.5 m for n) Plat is Moderate Moderate Moderate Severe Severe (10 m/so) PHWH Form Page - 1	ft)

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	ADDITIONAL STREAM INFORMATION (This information Must Also be Completed);	
•	QHEI PERPORMED? - [] Yes X No QHEI Score (If Yes, Allach Completed QHEI Form)	
	DOWNSTREAM DESIGNATED USE(S)           AWWH Name:         BIG         RUN   Distance from Evaluated Stream	
	CWH Name: Distance from Evaluated Stream	
	MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. DLEARLY MARK THE SITE LOCATION	
	USGS Quadrangle Name: PAYNE, DHID NRCS Soil Map Page: NRCS Soil Map Stream Order	
	County: TAVLDING Township/City: HARRISUN TINP	
	MISCELLANEOUS	
	Base Flow Conditions? (Y/N): 1 Date of fast presiplication: UNKNUWN Quantity:	
	Photograph Information: 155	
	Eleveled Turblally? (Y/N): N Canopy (% open): 100 %	
· · ·	Were samples collected for water chemistry? (YM); N (Note lab sample no, or id, and altach results) Lab Number;	
	Field Magsuras:       Temp (*C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/em),         Is the sampling reach representative of the stream (Y/N) If not, please explain:	
	· · · · · · · · · · · · · · · · · · ·	
•	Additional camments/description of pollution impacts:	
	BIOTIC EVALUATION	
	Performed? (Y/N): <u>N</u> (IFYee, Record all observations, Voucher collections optional, NOTE; all voucher samples must be tabeled with the site ID pumber, include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)	
	Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquallo Macroinveitebraics Observed? (Y/N) N Voucher? (Y/N) N	
	Commonis Regarding Blology:	
1		
	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	
	Hurt Hurt	
	NA VEGETATION VAR	
	- in the second se	
	FLOW CASTING	
	and the second of the second s	
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7	wel Fre	
	OHID 21# STOR	දුය

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ROW CROP

Ch		iry Headwater H		sum of metrics 1, :	2,3): 51
LENGTHO	OCHID_ SCORER ) O	NCC IERRIVER BY LAT.41.0993 LOI 2000000000000000000000000000000000000	NG 84, 7764RIVA WILO CAT	IVIEL DRAINAGE A IR CODER CREEK	
STREAM		E/NATURAL CHANNEL 🏼 R	ECOVERED X RECO	OVERING 🗍 RECENT	OR NO RECOVERY
	BSTRATE (Estimate percent ax of 40). Add letal number of 1 BLOR SLABS [16 pis] BOULDER (>256 mm) [16 pis BEDROCK [16 pi] COB9LE (65-256 mm) [12 pis GRAVEL (2-64 mm) [19 pis] SAND (<2 mm) [6 pis] Total of Percenteges of 1 Steps, Boulder, Cobble, Bedr TWO MOST PREDOMINATE		(Max of 8). Final metrie : Silt [3 p[] LEAF PACKWOODY FINE DETRITUS [3 p CLAY of HARDPAN ] MUCK [0 pts] ARTIFICIAL [3 pts]	scora i a sum of boxas A <u>PEF</u> DEBRIS (3 p(s) (s) 10 p() <u>10 p()</u> <u>10 p()</u>	A B.     HHEI       ICENT     Metric       Substrate     Max = 40       ICENT     I       ICENT     I
ov → 3 → 2 → 1	ximum Pool Depth (Maasure Juation, Avoid plange pools fro I centimeters [20 pts] 6 - 30 cm [30 pts] 6 - 22,5 cm [25 pts] MMENTS	the maximum pool depth with m road culveris or storm water p 	blpes) (Check ONLY o > 5 cm - 10 cm [15 p < 5 cm [5 pis] NO WATER OR MOI	ne box):	
⊠ >4. □ >3. □ >1.	1 meters (> 13') [30 pts] 3 m - 4 0 m (> 9' 7" - 13') [25 pt 6 m - 3 0 m (> 4' 8" - 9' 7') [20 p		>1,0m -1.5m (>33 ≤1.0m (≤333)[6pt		s) 15 30
۵	RIPARIAN ZONE AND FL <u>RIPARIAN WIDTH</u> R (Per Bank) Wide >10m Moderale 5-10m Moderale 5-10m Nerrew <5m None COMMENT8	COODPLAIN QUALITY SANG <u>PLOODPLAIN QUALIT</u> L R (Most Predio D Mature Fore D D Mature Fore Field	minant per Bank) st, Welland xest, Shrub or Old Park, New Fleid	Right (R) as tooking down	llon Tillago ndustrial
		of Evaluation) (Check ONLY on		l, isolated pools, no flow	(intermitiont)
	FLOW REGIME (Al Time of Stream Flowing Subsurface flow with Isolate COMMENTS	ed pools (interstitiet)	Dry chennel, r	o water (Ephemeral)	

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	IONAL STREAM INFORMATION (This information Must Also be Completed):
<u>, 1991,1</u>	QHEI PERFORMED? - DYES X NO QHEI Score (IIYes, Altach Completed QHEI Form)
Xww Dcw	DOWNSTREAM DESIGNATED USE(S) /H Nature: FLAT ROCK CKEEK Distance from Evaluated Stream_4.5 MILES
_	H Name: Distance from Evaluated Biream H Name: Distance from Evaluated Stream
	MAPPING: Attach dopies of maps, including the <u>entire</u> watershed area. Clearly mark the site location
USGS	Quadrangle Name: PAYNE, OHID NRCS Soil Map Page: NRCS Soil Map Stream Order
	TOWNSHIP / City HARRISON TWP
	MISCELLANEQUS
Base Fl	low Condilions? (YN): Date of last precipitation: UNKNOWN Quantity:
Pholog	raph Information: <u>VES</u>
- Elevato	ed Turbidily? (Y/N): N Canopy (% open); 100°/6
Were s	amples collected for water chem(stry? (Y/N): (Note tab sample no. or id, and attach results) Lab Number
Field M	easures: Tamp (°C) Dissolved Oxygen (mgd) pH (S.U.) Conductivity (umhosicm)
is the s	empling reach representative of the stream (Y/N) Y I find, please explain:
<b></b>	
Addition	nal comments/description of pollution impacts: NONE
	BIOTIC EVALUATION
Perform	nsd? (Y/N): 11/ (If Yes, Record all observations, Voucher collections optional, NOTE; all voucher samples must be labeled with the sile
	D number. Indude appropriate tield data sheets from the Primary Headwater Habital Assessment Manual)
Fish Ob Frogs o	bserved7 (Y/N) N
Comme	ente Regerding Biology;
	DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
I	include Important landmarks and other features of Interest for sile evaluation and a narralive description of the stream's location
	POULDERS, FLOW ROW CROP
	~ <u>************************************</u>
CONTRAL	A MACOCOSSO
FLOV	
	0 28.90800
	VECIETATION
	BOULDERS

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Name: JAMIE BERARDINELLI	
Date: 9/80/15	
Affiliation: THE MANNIK SSMITH EIRINP	
Address: 1800 INDIAN WOOD CIECCE, MANNAGE OHIO	
Phone Number: 419 891, 2227	
e-mail address: JBERARDINELLIE MANNILSMITHERIDP. CURA	
Name of Wetland: WETLAND CC	
Vegetation Communit(les): ENTERMENT	
HGM Class(es): RIVERINE - HEADWATTER DEFRESSION (A) Location of Wetland: Include map, address, north arrow, landmarks, distances, roads, etc.	
NN	
WETLAND CC WILD CAT C	REEK
Lallong or UTM Coordinate LAT: 134107233634, LONG-530196.48	13 OH SP83
USOS Quad Name	PAYNE, OHIO
County	PAULDING
Township	HARRISUN
Section and Subsection	TINRIE
Hydrologic Unit Code	04100007-
Site Visit	9/20/15
National Welland Inventory Map	
Ohio Welland Inventory Map	
Solf Survey	VES
Delineation report/map	YES

## **Background Information**

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me of Welland: WETLAND CC		
etland Size (acres, hectares): ~0.1 ACRES		
etland Size (acres, hectares): $\sim 0.1$ ACRES (etch: Include north arrow, relationship with other surface water	srs, vegetation zones, etc.	
SEE DELINEATION FLOUR		
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omments, Narrative Discussion, Justification of Category Char	nges:	
NONE		•

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#### Scoring Boundary Worksheet

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INSTRUCTIONS. The initial step in completing the ORAM is 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 "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous 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. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, 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 patchwork on the landscape, wetlands divided by artificial boundaries 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 Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further chrification of the appropriate scoring boundaries of a particular wetland.

£	Steps in properly establishing scoring boundaries	done?	not applicable
step 1	Identify the welland area of Interest. This may be the sile 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- induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single welland.	1	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	1	
Step 4	Determine If artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., 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 logether wellands that could be scored separately.		$\checkmark$
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, configuous to streams, takes or rivers, or for dual classifications.	1	

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

### **Narrative Rating**

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <u>http://www.dnr.state.oh.us/dnap</u>. The remaining 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 habitat" is legally defined in the Endangered Species Act 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 3 Headquarters 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 one	7
1	Critical Habitat, is the welfand in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).		NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Welland is a Category 3 welland. Go to Question 3	NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	N N	NO Go to Question 4
4	SignIficant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowi, neotropical songbird, or shorebird concentration areas?	· ∖-	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea, Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES (1 Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland Is a Category 3 wetland Go to Question 7	NO Go to Question 7
Z	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that Is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species ilsted in Table 1 and the cover of invasive species listed in Table 1 is <25%?	Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 82
82	"Old Growth Forest," Is the welland a forested welland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?		NO Go to Question 81

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		Mature forested wetlands, is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Welland should be evaluated for possible Calegory 3 status.	NO Go to Question 9a
	•		Go to Question 9a	
	9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES ( Go to Question 9b	NO Go to Question 10
•	9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erle due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 9d
			Go to Question 10	
	96	Are Lake Erie water levels the wetland's primary hydrological influence, I.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
	9d	Does the welland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wettand is a Category 3 wettand	NO Go to Question 96
		Does the wetland have a predominance of non-native or disturbance	Go to Question 10	NO
	9e	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
			Go to Question 10	
	10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation 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 type of wetland and its quality.	YES ( Wetland Is a Category 3 wetland. Go to Question 11	NO Go to Question 11
	11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erle, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Mlami, Montgomery, Van Wert etc.).	YES ( Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

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Table 1. Characteristi	a prante oproces	esicies	Cak Opening species	wet prairie species
invasivelexotic spp Lythrum satioaria Myriophyllum spicohum Najas minor Phalartis anundunacea Phalartis anundunacea Phalartis anundunacea Phalartis anundus sicaria Rannnus frangula Typha agustifolia Typha sglauca	ten species Zygadenus elegans var. glancus Cavadia plantaginea Carex stavila Carex sta	Calla pahustris Carex allantica var. capillacea Carex echinata Carex oligosperma Carex itisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nenopondhus mucronatus Schechzeria palusiris Sphagnum spp. Yaccinium macrocarpon Yaccinium macrocarpon Yaccinium macrocarpon Yaccinium ayycoccos Woodwardia virginica Xysts difformis	Carex azyptolepis Carex lasiocarpa Carex stricta Cladium wariscoldes Calamagrosils stricta Calamagrosils canadensis Quercus palustris	Calamagrostis canadensa Calamagrostis stril Carex atherodu Carex palli Carex palli Carex palli Gentiana andrevs Helianthus grosseserrati Liairts spica Lysiwachia quadriflo Lythrum alatu Pychanthannun virginiatm Silphium terebinthinaceu Sorghastrum vada Spartina pectina Solidago riddel

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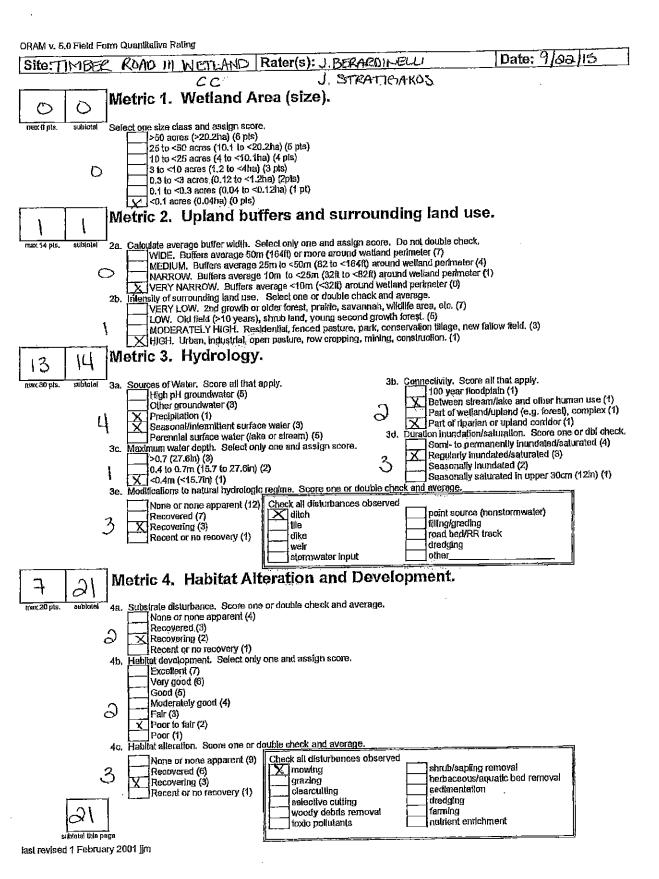
- 1

End of Narrative Rating. Begin Quantitative Rating on next page.

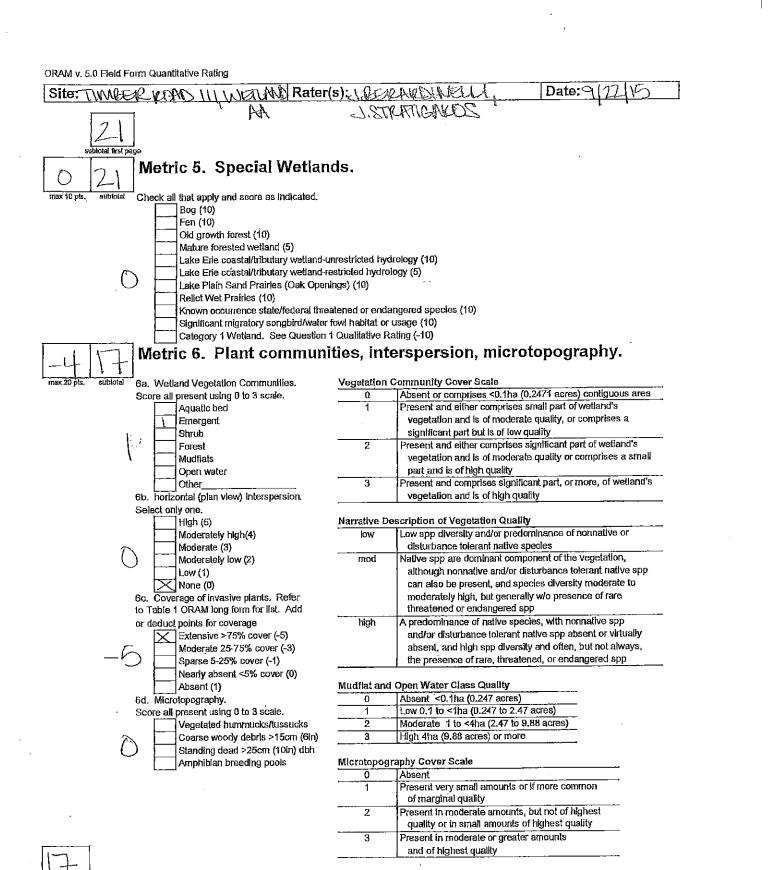
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End of Quantitative Rating. Complete Categorization Worksheets.

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# **ORAM Summary Worksheet**

· · ·		- 340 [ 0	· · · · ·
		circle	
		answer or	Deput
		insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3,
	Question 5. Category 1 Wetlands	YES	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Ene Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands ~ Unrestricted with invasive plants	YES ('NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2,
Quantitative Rating	Metric 1, Size	0	
-	Metric 2. Buffers and surrounding land use	(	
	Metric 3. Hydrology	13	
	Metric 4. Habitat	7	
	Metric 5. Special Wetland Communities		
•	Metric 6. Plant communities, interspersion, microtopography	-4	
	TOTAL SCORE	IT	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

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# Wetland Categorization Worksheet

Choices ·	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Welland is categorized as a Category 3 wetland	NO	Is quantitative rating score less than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluale the category of the welland using the narrative criteria in OAC Rule 3745-1-54(C) and bloiogical and/or functional assessments to determine if the welland has been over- categorized by the ORAM
Did you answar "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the welland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the watland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score greater than the Category 2 scoring threshold (Including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been, under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Welland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the <i>"gray zone"</i> for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's hotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

		al Category .	
Choose one	Category 1	Category 2	Category 3
	1 1		
		)	

End of Ohio Rapid Assessment Method for Wetlands.

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### WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

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Project/Site: Timber Road III		City/County: Paul	ding	Sampling Date:
Applicant/Owner: EDP Renewables			 State: Ohio	Sampling Point: SP-AA-1
Investigator(s): J. Stratigakos, J.Bei	ardinelli	Section Townshin	, Range: Harrison Twp	
Landform (hillslope, terrace, etc.): Rip	arian Fringe	Logal roliof (conceve	convex none). Concave	Slope (%) <sup>, –</sup>
Landform (hillslope, terrace, etc.):	1347062		5308370.6	OH SP 83
Subregion (LRR or MLRA): LRR L Soil Map Unit Name: Hoytville silty c	Lat:	·	Long:	Datum
Soil Map Unit Name: Hoytville silty c	ay, u to T percent slope		NWI classi	fication:
Are climatic / hydrologic conditions on				
Are Vegetation, Soil, o	r Hydrology signific	antly disturbed?	Are "Normal Circumstances	" present? Yes <u>×</u> No
Are Vegetation, Soil, o	r Hydrology natura	lly problematic?	(If needed, explain any answ	wers in Remarks.)
SUMMARY OF FINDINGS -	Attach site map show	wing sampling poi	nt locations, transec	ts, Important features, etc.
Hydrophytic Vegetation Present?	Yes <u>×</u> No	is the Sam		
Hydric Soil Present?	Yes X No	within a W		< No
Wetland Hydrology Present?		If yes, optic	onal Wetland Site ID: Wetla	and AA
Remarks: (Explain alternative proce				
	· · · · · · · · · · · · · · · · · · ·	<u> </u>	Secondary Ind	icators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one	is required: check all that a	nnlv)		oil Cracks (B6)
		ained Leaves (B9)		Patterns (B10)
Surface Water (A1) High Water Table (A2)	Aquatic F		—	Lines (B16)
Saturation (A3)	Marl Dep			on Water Table (C2)
Water Marks (B1)		n Sulfide Odor (C1)		Burrows (C8)
Sediment Deposits (B2)		Rhizospheres on Living		visible on Aerial Imagery (C9)
Drift Deposits (B3)		of Reduced Iron (C4)		r Stressed Plants (D1)
Algal Mat or Crust (B4)		on Reduction in Tilled S	oils (C6) X Geomorp	hic Position (D2)
Iron Deposits (B5)		k Surface (C7)		quitard (D3)
Inundation Visible on Aerial Ima	igery (B7) Other (Ex	oplain in Remarks)		graphic Relief (D4)
Sparsely Vegetated Concave S	urface (B8)		× FAC-Neu	tral Test (D5)
Field Observations:				
	No <u>×</u> Depth (i			
Water Table Present? Yes	No <u>×</u> Depth (i	nches):		
	<u>×</u> No Depth (i	nches): Surface	Wetland Hydrology Pre	sent? Yes X No
(includes capillary fringe) Describe Recorded Data (stream ga	uge monitoring well aeria	Inhotos, previous inspe	ctions), if available:	
Describe Recorded Data (stream ga	ruge, morntoning weil, dend	photos, promode mopo		
Remarks:	· · · · ·			

Following to the first

#### **VEGETATION** – Use scientific names of plants.

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	Absolute	Dominant	Indicator	Denie - Tester febref
<u>Tree Stratum</u> (Plot size:)		Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
				(A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
				That Are OBL, FACW, or FAC: 100 (A/B)
5		<u></u>	·	
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	•	= Total Co		OBL species         x1 =         0
			vei	-
Sapling/Shrub Stratum (Plot size:)				FACW species XZ =
1				
2				FACU species x 4 =0
				UPL species x 5 =0
3		<u> </u>	·	Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6			·	
7			·	1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Co	ver	✓ 2 - Dominance Test is >50%
Herb Stratum (Plot size: )				3 - Prevalence Index is ≤3.0 <sup>1</sup>
Phalaris arundinacea	50	~	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
I,		X	PACVV	data in Remarks or on a separate sheet)
2. <u>Carex sp.</u>	40	X	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Juncus effusus	10		OBL	
4. Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Asclepias syriaca	5		UPL	Definitions of Vegetation Strata:
C				Deminions of vegetation strata.
6			·	Tree - Woody plants 3 in. (7.6 cm) or more in diameter
7		·		at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				of size, and woody plants less than 5.26 it tall.
12				Woody vines - All woody vines greater than 3.28 ft in
	115	- T-t-l C-		height.
		= Total Co	IVEI	
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4		~ <u></u>		Vegetation Present? Yes X No
	0	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet )			
Remarks. (include proto numbers here of on a separate	sneet.)			

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Sampling Point: \_\_\_\_\_SP-AA-1

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Profile Desc	cription: (Describe	to the dept	h needed to docur	nent the in	dicator	or confirm	the absence of in	dicators.)
Depth	Matrix			x Features	<u></u> 1	1 a c <sup>2</sup>	Texture	Domades
(inches)	Color (moist)	<u>%</u>	<u>Color (moist)</u>		Type <sup>1</sup>	_Loc <sup>2</sup>		Remarks
0-12	10YR 3/1	100					Clay	Moist
		· ·	-					
	<u> </u>						·	
		· ·						
		· ·						
				<u> </u>		- <u></u>		
						<u> </u>		
	·			·				
		· ·				<u> </u>		
		· ·						Deer Links Maketer
	Concentration, D=Dep	pletion, RM=	Reduced Matrix, M	S=Masked	Sand Gr	ains.		=Pore Lining, M=Matrix. Problematic Hydric Soils <sup>3</sup> :
Hydric Soil								•
Histoso	· ·		Polyvalue Belo MLRA 1498		58) (LRI	<b>К</b> ,		(A10) ( <b>LRR K, L, MLRA 149B</b> ) e Redox (A16) ( <b>LRR K, L, R</b> )
	pipedon (A2)		Thin Dark Surf	,		DA 1408)		Peat or Peat (S3) (LRR K, L, R)
	listic (A3) en Sulfide (A4)		Loamy Mucky					e (S7) (LRR K, L)
	en Sunde (A4) ed Layers (A5)		Loamy Gleyed			, <b>-</b> )		elow Surface (S8) (LRR K, L)
-	ed Below Dark Surfac	:e (A11)	Depleted Matri					Surface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Su					nese Masses (F12) (LRR K, L, R)
—	Mucky Mineral (S1)		Depleted Dark		7)		Piedmont F	loodplain Soils (F19) (MLRA 149B)
_ ·	Gleyed Matrix (S4)		Redox Depres				Mesic Spoc	ic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)							Material (F21)
Strippe	d Matrix (S6)							w Dark Surface (TF12)
Dark Si	urface (S7) (LRR R,	MLRA 149E	3)				Other (Expl	ain in Remarks)
	of hydrophytic vegeta		tland hydrology mu	st be prese	nt, unles	s disturbed	or problematic.	
Restrictive	Layer (if observed)							
Туре:								
Depth (ii	nches):						Hydric Soil Pres	sent? Yes <u>×</u> No
Remarks							1	

Construction (Construction Construction)

#### WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

(1) A set of the se

Project/Site: Timber Road III		City/C	ounty: Paulding		Sampling Date: 9/22/15
Applicant/Owner: EDP Renew	ables	,	<u>,</u>		Sampling Point: SP-AA-1
Investigator(s): J. Stratigakos,		Sectio	n Township, Range		<u> </u>
Landform (hillslope, terrace, etc.)		Local reli	ef (concave, convex	none). Concave	Slope (%) <sup></sup>
Subregion (LRR or MLRA): LRF					OH SP 83
Soil Map Unit Name: Hoytville		rcent slope (HtA)		NIMI classifi	Datum
Are climatic / hydrologic conditio					
		-			
Are Vegetation, Soil					present? Yes X No
Are Vegetation, Soil	, or Hydrology	naturally problema	tic? (If neede	ed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS	S – Attach site	map showing sam	pling point loca	ations, transects	, important features, etc.
Hudrophytic Vegetation Broson	t2 Vac X	No	is the Sampled Ar	ea	
Hydrophytic Vegetation Preser Hydric Soil Present?	Yes X	No	within a Wetland?		No
Wetland Hydrology Present?	Yes X	No	If yes, optional Wet	land Site ID: Wetlan	d AA
Remarks: (Explain alternative				<u></u>	
HYDROLOGY					
Wetland Hydrology Indicator	S:			Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum o	f one is required; che	eck all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	_	_ Water-Stained Leave	s (B9)	Drainage Pa	atterns (B10)
High Water Table (A2)	_	Aquatic Fauna (B13)		Moss Trim L	ines (B16)
Saturation (A3)		_ Marl Deposits (B15)		-	Water Table (C2)
Water Marks (B1)		_ Hydrogen Sulfide Ode		Crayfish Bu	
Sediment Deposits (B2)		_ Oxidized Rhizosphere			/isible on Aerial Imagery (C9)
Drift Deposits (B3)     Algal Mat or Crust (B4)	_	Presence of Reduced Recent Iron Reductio			Stressed Plants (D1) : Position (D2)
Iron Deposits (B5)	—	_ Thin Muck Surface (C		Shallow Aqu	
Inundation Visible on Aeria		_ Other (Explain in Ren			aphic Relief (D4)
Sparsely Vegetated Conca	ave Surface (B8)			X FAC-Neutra	l Test (D5)
Field Observations:		2			
Surface Water Present?		Depth (inches):			
Water Table Present?		Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes X No	Depth (inches): Surf	wetla	nd Hydrology Prese	nt? Yes <u>X</u> No
Describe Recorded Data (strea	arn gauge, monitorinç	g well, aerial photos, pre	vious inspections), if	f available:	
. Remarks:					

(177) I. A. S. M. S. S. S. S. S. M. Markov, "Phys. Rev. Lett. 101 (1976).

Sampling Point:	_SP-AA-1
• •	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
				Total Number of Dominant Species Across All Strata:2 (B)
3				
4			·	Percent of Dominant Species That Are OBL, FACW, or FAC; 100 (A/B)
5				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
··· <u>··································</u>	0	= Total Co	vor	OBL species         x1 =         0
		- 10(a) 00	ver	FACW species x 2 =0
Sapling/Shrub Stratum (Plot size:)				FAC species x3 =0
1			·	FACU species $x = 0$
2			· ·	UPL species
3				Column Totals: (A) (B)
4.				
				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
	0	= Total Co	ver	$3$ - Prevalence Index is $\leq 3.0^{1}$
Herb Stratum (Plot size:)				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. <u>Phalaris arundinacea</u>	50	<u> </u>	FACW	data in Remarks or on a separate sheet)
2. Carex sp.	40	×	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Juncus effusus	10		OBL	4
Leersia oryzoides	10		OBL	<sup>1</sup> indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Asclepias syriaca	5		UPL	Definitions of Vegetation Strata:
6				
7				<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.				
				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				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
12	 115	_ = Total Co		height.
Woody Vine <u>Stratum</u> (Plot size:)				
1			_	
2				
3				Vegetation
4		•		Present? Yes <u>X</u> No
	0	_ = Total C	over	
Remarks: (Include photo numbers here or on a separate	sheet.)			

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Sampling Point: \_\_\_\_

Depth	Matrix	·		x Feature	<u>s</u>	· .			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-12	10YR 3/1	100					Clay	Moist	
					·				
			<u>.</u> -						
		<u> </u>					·		
								<u>_</u>	
	·				· ·			······································	
					· ·				
			·						
				,	· ·			<u> </u>	
 1 <del></del>	oncentration, D=Depl		Poducod Matrix, M		d Sand Gra	ine -	<sup>2</sup> Location: PL=Pc	re Lining, M=Matrix.	
Hydric Soil I			Veuluced Malinx, M					plematic Hydric Soils <sup>3</sup> :	
Histosol			Polyvalue Belo	ow Surface	(S8) (LRR	R.		0) (LRR K, L, MLRA 14	9B)
	pipedon (A2)	-	MLRA 149E		() (			edox (A16) (LRR K, L, I	
Black Hi		_	Thin Dark Surl		LRR R, ML	RA 149B)	5 cm Mucky Pe	at or Peat (S3) (LRR K,	L, R)
	en Sulfide (A4)	-	Loamy Mucky	Mineral (F	1) ( <b>LRR K,</b>	L)	Dark Surface (		
	d Layers (A5)	-	Loamy Gleyed		2)			w Surface (S8) (LRR K,	L)
·	d Below Dark Surface	e (A11)	Depleted Matr		、 、			ace (S9) (LRR K, L)	I D
	ark Surface (A12)	-	Redox Dark S Depleted Dark					e Masses (F12) (LRR K dplain Soils (F19) (MLR	
_	Aucky Mineral (S1) Gleyed Matrix (S4)	-	Redox Depres					TA6) (MLRA 144A, 145	
	Redox (S5)	-					Red Parent Ma		
	1 Matrix (S6)							Dark Surface (TF12)	
	Inface (S7) (LRR R, N	ILRA 149B	)				Other (Explain	in Remarks)	
	of hydrophytic vegetat	ion and we	land hydrology mu	ust be pres	ent, unless	disturbed	or problematic.		
Restrictive	Layer (if observed):								
Туре:		<u> </u>						<b>v</b>	
Depth (in	nches):						Hydric Soil Presen	t? Yes <u>×</u> No	
Remarks:							L		
									÷

	NAME/LOCATION _	SIZEAT I		RIVER BAS	IN MAUMER	- RIVER DR	AINAGE AREA (m <sup>p</sup> )_0	.17
LENG			LAT.	LON	G	RIVER CODE	RIVER MILE	
							/H Streams" for Instru	ictions
	EAM CHANNEL DIFICATIONS:		URAL CHA	NNEL 🗍 RE		Recovering [	RECENT OR NO RECO	VERY
1.	SUBSTRATE (Es	limate percent of ever	ry type of s	ubstrate pres	ent. Check ONLY	wo predominant s	ubsirate <i>TYPE</i> boxes	11)15-6
<u>TYP</u>	E		ant substrate ERCENT	TYPE		elric score is sum	PERCENT	HHEI Metric Points
		: [16 pIs] 256 mm) [16 pIs]			SILT [3 pl] LEAF PACK/WO	ody debris <b>(3</b> p	<u>30</u> [s] <u>70</u>	
					FINE DETRITUS			Substrate Max = 40
		256 mm) {12 pis] i4 mm) [9 pis]			CLAY or HARDP MUCK [0 pts]	AN LUPUJ		
00	□ SAND (<2 mm	n) [6 pts]		00	ARTIFICIAL [3 P	s]		8
		rcentages of er, Cobble, Bedrock		(A)			(B)	A+B
SCOF		REDOMINATE SUBS		ES;	TOTAL NUM	BER OF SUBST		
2	Maximum Pool F	Depth (Measure the ma	aximum no	ol denth withi	n the fil meter (2)	N ft) evaluation to	ach al the lime of	Pool Dept
- -	evaluation. Avoid	plunge pools from road	I culverts or	storm waler pl	pes) (Check O/	ILY one box):		Мах = 30
ğ	> 30 centimeters [ > 22.5 - 30 cm [3)				> 5 cm - 10 cm < 5 cm [5 pts]	[15 pls]		
_[]	> 10 - 22.5 cm [2:	i pls]		<u> </u>	NO WATER OF	MOIST CHANNE		L
	COMMENTS				MAXIMU	I POOL DEPTH (		-
3.		TH (Measured as the	average of					Bankfull
ğ	> 4.0 meters (> 13) > 3.0 m - 4.0 m (>			Ц Х	>1.0m -1.5m ≤1,0m (≤3′3″)	(> 3' 3" - 4' 8") [15 j [5 p(s]	ots]	Width <u>Max=30</u>
	> 1.5 m - 3.0 m (>	4' 8" - 9' 7") [20 pts]		-			2.5	5
	COMMENTS				AVERAG	E BANKFÜLL ŴI	DTH (meters)	
·	···		This		ust also be comp	lefed		
		N ZONE AND FLOODP AN WIDTH	'LAIN QUAL	LITY & NO PLAIN QUALIT	TE: River Left (L)	and Right (R) as l	≫king downstream쇼	
	<u>LR</u> (PerBa	-		(Most Predion Mature Fores	ninant per Bank) It Wetland		Conservation Tillage	
	Wide >		00	immature For	rest, Shrub or Old		Urban or Industrial	
	□□ Wide> □□□ Moder;	ale 5-10m		Field			Open Pasiure, Row	
	Moder:		шч	Residential	Dark Nam Field	nn,		
			00 00	Residential, F Fenced Pasta	Park, New Field ure	00 00	Crop Mining or Construction	
	Modera	/ <5m	00 00	-		00	Crop Mining or Construction	
	Modera     Modera     Modera     Modera     Narrow     None     COMMEN     FLOW RE     Stream Flo     Subsurface	r <5m ITS GIME (At Time of Evel wing tow with isolated pool	ualion) (Cl	Fenced Past	e box): Moist Cl	00	Mining or Construction	
	Modera     Modera     Modera     Modera     None     COMMEN     FLOW RE     Stream Flo     Subsurface     COMMEN	r <5m ITS GIME (At Time of Evel wing tow with isolated pool	Ualion) (Cl	Fenced Paste	a box): A Moist Cl Dry char	annel, isolated po nnel, no water (Ep	Mining or Construction	

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ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):

- 1

QHEI PERI					•		
L DOWNSTR	EAM DESIGNATI	ED USE(S)					10
						valuated Stream	
EWH Name:						valuated Stream	
MAPPING:	ATTACH COPIES	OF MAPS, INCL	UDING THE <u>ENT</u>	IRE WATERSHE	JAREA CLEARLY	MARK THE SITE LOC	ATION
JSGS Quadrangle N	ame: <u>PNINE</u>	OHIO		NRCS Soll Map	Page: NR(	CS Soil Map Stream (	Order
County: DAULS		•					
MISCELLA	NEOUS						
Base Flow Conditions	67 (Y/N): <u>Y</u>	Date of last pro	ecipitation: UN	KNOWN	Quantity:		
Pholograph Informati	on: YES	·					
Elevated Turbldity? (					· .		
					and atlach resulls)	Lab Number	
						vity (µmhos/cm)	
is the sampling read	representative o	í (he stream (Y/)	1) Y	please explain:			
, -							
			NONE				
Appigonal comments	vesa ipriori ot po	notion pubacia:	NOIGE				
			<u> </u>			· _ ·	
BIOTIC E	VALUATION		<u></u>		. <u> </u>	· · · · · · · · · · · · · · · · · · ·	
<u>BIOTIC E</u> Performed? (Y/N):	N (If Yes					er samples must be lai	
Performed? (Y/N):	N (If Yes ID num	nber. Include app	ropriate field data	a sheels from line (	Primary Headwater H	abitat Assessment Ma	nual)
Performed? (Y/N):	N (If Yes ID num	nber. Include app	ropriate field data	a sheels from line (	Primary Headwater H	abitat Assessment Ma	nual)
Performed? (Y/N):	N (If Yes ID num ) N vouch bserved? (Y/N)	nber. Include app er? (Y/N)_N Voucher? (	ropriate tield data Salamanders O Y/N) <u>N</u> Aquat	a sheets from the : bserved? (Y/N)_ le Macroinverteb	Primary Headwater H	(abitat Assessment Ma N) N N) N Voucher? (*	nual)
Performed? (Y/N): Fish Observed? (Y/I Frogs or Tadpoles C	N (If Yes ID num ) N vouch bserved? (Y/N)	ober. Include app or? (Y/N) N Voucher? (	ropriate tield data Salamanders O Y/N) <u>N</u> Aquat	a sheets from the bserved? (Y/N)_ lo Macroinverteb	Primary Headwaler H Voucher? (Y/ rales Observed? (Y/	(abitat Assessment Ma N) N N) N Voucher? (*	nual)
Performed? (Y/N): Fish Observed? (Y/I Frogs or Tadpoles C	N (If Yes ID num ) N vouch bserved? (Y/N)	ar? (Y/N <u>) N</u> ar? (Y/N <u>) N</u> Voucher? (	ropriate field data Salamanders O Y/N) <u>N</u> Aquat	a sheets from the bserved? (Y/N)_ lo Macroinverteb	Primary Headwaler H Voucher? (Y/ rales Observed? (Y/	(abitat Assessment Ma N) N N) N Voucher? (*	nual)
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Performed? (Y/N): Fish Observed? (Y/N Frogs or Tadpoles C Comments Regardin  DRA\ Include Impo	N (If Yes ID num ) N Vouch bserved? (Y/N) g Biology VING AND NA	nber. Include app er? (Y/N) N Voucher? ( RRATIVE D and other featur GIKA	ropriate field data Salamanders O Y/N) N Aquat ESCRIPTION es of Interest fo	a sheets from the bserved? (Y/N)_ le Macroinverteb lo OF STREAN or site evaluation D 94	Voucher? (Y/ rales Observed? (Y/ Ales Observed? (Y/ A REACH (This and a narrative des	iabitat Assessment Ma N) N N) N Voucher? (* <u>must</u> be comple	mual) Y/N) <u>N</u> eted):
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<b>ChieFPA</b> Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) :	3
SITE NAME/LOCATION STREAM REACH (n) COMMENTS NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	
STREAM CHANNEL ON NONE / NATURAL CHANNEL RECOVERED RECOVERING RECOVERING RECENT OR NO RECO	VERY
1.       SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 40). Add lotal 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 (>255 mm) [16 pts]       QI       SILT [3 pt]       GO         BEDROCK [16 pt]       DI       FINE DETRITUS [3 pts]       GO         BEDROCK [16 pt]       DI       FINE DETRITUS [3 pts]       GO         COBBLE (65-256 mm) [12 pts]       DI       CLAY or HARDPAN [0 pt]       GI         GRAVEL (2-64 mm) [3 pts]       DI       MUCK [6 pts]       GI         Total of Percentages of       (A)       (B)       GI         Bldr Slabs, Boulder, Cobble, Bedrock       GI       TOTAL NUMBER OF SUBSTRATE TYPES:       TOTAL NUMBER OF SUBSTRATE TYPES:	HHEI Metric Points Max = 40 Max = 40
2.       MaxImum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the line of evaluation. Avoid plange pools from read culverts or slorm water pipes) (Check ONLY one box):         > 30 centimeters [20 pts]       > 5 cm - 10 cm [15 pts]         > 22.5 - 30 cm [30 pts]       > 5 cm [5 pts]         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0 pts]         COMMENTS       MAXIMUM POOL DEPTH (centimeters);	Pool Depth Max = 30
COMMENTS	Bankfull Width Max=30
This Information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY & NOTE: River Left (L) and Right (R) as looking downstream in the readominant per Bank)         I. R. (Per Bank)       I. R. (Mest Predominant per Bank)       L. R.         I. P. (Per Bank)       I. R. (Mest Predominant per Bank)       L. R.         I. Moderate 5-10m       Immature Forest, Wetland       Immature Forest, Shrub or Old       Immature, Row Crop         I. None       Immature Forest Pasture       Immature, Row Crop       Immature, Row Crop         I. None       Immature Forest Pasture       Immature, Row Crop         I. None       Immature forestitue <td></td>	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box); None 1.0 2.0 1.0 1.0 0.5 1.5 2.5 5 3 STREAM GRADIENT ESTIMATE Flat (0.5 1/300 m) A Flat to Moderate I Moderate (2 1/100 m) Moderate Io Severe II Severe (10 1/10	0 đ)
PHWH Form Page - 1	

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June 20, 2008 Revision

•	ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed);
1	QHEI PERFORMED? - 🗌 Yes 🕅 No QHEI Score (If Yes, Attach Completed QHEI Form)
	DOWNSTREAM DESIGNATED USE(S) WWH Name: WILD CAT CREEK Distance from Evaluated Stream ~1.0
	O'CWH Name: Distance from Evaluated Stream
	Distance from Evaluated Stream
	MAPPING; ATTACH COPIES OF MAPS, INCLIDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
	USGS Quadrangle Name: PAYNE, OHID NRCS Soil Map Page: NRCS Soil Map Stream Order
	county: PAULDINKT Township/City: HARRISON TINP
	MISCELLANEOUS
	Base Flow Conditions? (Y/N): Y Date of last precipitation: UNKNUWN Quantity.
	Photograph Information: NCS
	Elevated Turbidity? (Y/N): N Canopy (% open): 100 %
	Were samples collected for water chemistry? (Y/N): <u>N</u> (Note lab sample no. or id. and attach results) Lab Number.
	Field Measures:       Temp (*C) Dissolved Oxygen (mg/l) pH (S.U.)       Conductivity (umbos/cm),
	Field Measures: Temp (*C) Dissolved Oxygen (mg/) pr (5.0.) Contractivity (printosech) ,
	Is the sampling reach representative of the stream (Y/N) If not, please explain:
	Additional comments/description of pollution impacts: NONE
	BIOTIC EVALUATION
	Performed? (Y/N): 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 Habital Assessment Manual)
	Fish Observed? (Y/N) <u>N</u> Voucher? (Y/N) <u>N</u> Salamanders Observed? (Y/N) <u>N</u> Voucher? (Y/N) V Voucher? (Y/N) <u>N</u> Voucher? (Y/N) <u>N</u> Voucher? (Y/N) <u>N</u> Voucher? (Y/N) <u>N</u> Voucher? (Y/N) V Voucher? (Y/N) V Voucher? (Y/N) <u>N</u> Voucher? (Y/N) V Voucher? (Y/N) V Voucher? (Y/N) V V Voucher? (Y/N) V V Voucher? (Y/N) V V V V V V V V V V V V V V V V V V V
	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
	ROW CEUP
	was veg was well way.
	the second se
	FLOW VEG BOTTOM (CAREX)
	WA WE VED
	had why very my
	ASPHART ROAD OHION # STEEP
	BANK
	위WH Form Page - 2 આ 20,2008 Revision

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SITE NAMELOCATION	RIVER BASIN MACHMER R. LAT. 41.04.47 LONG. 84.47.04 RIVER	DRAINAGE AREA (m <sup>P</sup> ) $\leq 1.0 \leq 9.0$
DATE 7/23/15 SCORER RKC	COMMENTSGASSALLS	Sitch
•	m - Refer to "Field Evaluation Manual for Oi	· · ·
STREAM CHANNEL UNONE / NA MODIFICATIONS:	TURAL CHANNEL CORECOVERED CORECON	ZERING A RECENT OR NO RECOVERY
I. SUBSTRATE (Estimate percent of ev (Max of 40). Add total number of signific	ery type of substrate present. Check ONLY <u>two</u> prices of substrate types found (Max of 8). Final metric so	core is sum of boxes A & B.   HHE
TYPE BLDR SLABS [16 pts]	PERCENT TYPE	PERCENT Points
BOULDER (>256 mm) [16 pts]     BEDROCK [16 pt]		si Substrate
COBBLE (65-256 n/m) [12 pts]	CLAY or HARDPAN [0     CLAY or HARDPAN [0     MUCK [0 pts]	pl] Max = 40
GRAVEL (2-64 mm) [9 pts]     SAND (<2.mm) [6 pts]	, 2 U MUCK [0 pts]	
Total of Percentages of	(A)	(B) A+B
Bidr Slabs, Boulder, Cobble, Bedrock _ CORE OF TWO MOST PREDOMINATE SUB	STRATE TYPES:	OF SUBSTRATE TYPES
Maximum Pool Depth (Measure the r	naximum poöl depth within the 61 meter (200 ff) o	evaluation reach at the time of Pool Dept
evaluation. Avoid plunge pools from ro- > 30 contimeters [20 pts]	ad culverts or storm water pipes) (Check ONLY on	$\frac{Max = 30}{s}$
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]		ST CHANNEL [0 pts]
COMMENTS		DL DEPTH (centimeters);
BANK FULL WIDTH (Measured as th	e average of 3-4 measurements) (Check Check (> 3 3	ONLY one box): Bankfull "- 4' 8" (15 pts). Width
U > 4.0 meters (> 13') [30 pts]	□ × 1,0 m (≤ 3' 3') [5 pts	1 0 / (11 Proj.
> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pls]		Z 20
$60^{\circ}, 52^{\circ}, 55^{\circ}, 55^{\circ}$	// AVERAGE BA	NKFULL WIDTH (meters)
	This information <u>must</u> also be completed	l light (R) às looking downstream☆
<ul> <li>RIPARIAN ZONE AND FLOOR</li> </ul>	FLOODPLAIN QUALITY	
<u>RIPARIAN WIDTH</u>	L R .(Most Predominanl per Bank)	L R Conservation Tillage
	🗂 🗂 Immature Forest, Shrub or Old	🗍 🗍 Urban or Industrial
L R (Per Bank)	Field	
L R (Per Bank)	1 1 1	Open Pasture, Row Crop
L R (Per Bank) Wide >10m Moderate 5-10m	Eleid Field	Open Pasture, Row
L R (Per Bank) Wide >10m Moderate 5-10m Narrew <5m XBJX None COMMENTS	Field  Field  Fenced Pasture  Veluation) (Check ONLY one box);  Moist Channe	Open Pasture, Row Crop

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QHEI PERFORMED? - 🗍 Yes 📈 No - QHEI Score	_ (If Yes, Attach Completed QHELForm)
DOWNSTREAM DESIGNATED USE(S)	rd at a
WWH Name: South (Cecil	Distance from Evaluated Stream 7 Manade
CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE N	
GS Quadrangle Name: Payne, Chito, NRC	
Inty: Tara Atra Township / C	city_Harrison Twp
MISCELLANEOUS	
se Flow Conditions? (Y/N): $Y$ Date of last precipitation: $CY mK$	March Quantity:
plograph Information: V4-3	
vated Turbldity? (Y/N): N Canopy (% open): 100	
· · · · · ·	
re samples collected for water chemistry? (Y/N): $\mathcal{N}_{-}$ (Noie lab samp	
ld Meaisures: Temp (°C)Dissolved Oxygen (mgA)	_pH (S.U.) Conductivity (µmhós/čm)
he sampling reach representative of the stream (Y/N) )[ not, pleas	a explain:
ditional comments/description of pollution impacts:	
mments Regarding Biology. <u>Mane</u>	· · · · · · · · · · · · · · · · · · ·
	· · · · · · · · · · · · · · · · · · ·
<u>HIR LUGARAN MARANA /u>	
DRAWING AND NARRATIVE DESCRIPTION OF Include important (andmarks and other features of interest for site	
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at an i	We want the second s
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and the second	NARONALISAN ARAN INTERNA ARAN MANUNA A Manuna aran manuna aran manu
NoA / S. P. P. P.	
	ning kan unga cana alam kang ing manya na kang ang ang ang ang ang ang ang ang ang

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PHWH Form Page - 2

<b>ChieFPA</b> Primary H	leadwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) :	6
	196 ( ). Arabler Dich)	
SITE NUMBER	RIVER BASIN Mailinge, R., DRAINAGE AREA (mi <sup>2</sup> ) Control DRAINAGE (mi <sup>2</sup> ) Control DRAINAGE (mi <sup>2</sup>	
	COMMENTS	
NOTE: Complete All Items On This Form	- Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ictions
STREAM CHANNEL	URAL CHANNEL 🗇 RECOVERED 🗇 RECOVERING 🖾 RECENT OR NO RECO	VERY
MODIFICATIONS;	•	
	an na an an ann an ann an an an an an an	
	y type of substrate present. Check ONLY <u>two</u> predominant substrate TYPE boxes — Int substrate types found (Max of 8). Final metric spore is sum of boxes A & B.	HHEI
TYPE PLDR SLABS (16 pls)	RCENT TYPE PERCENT	Metric Points
BOULDER (>256 mm) [16 pts]	LEAF PACKWOODY DEBRIS [3 p(s)	Substrate
□□□□ BEDROCK [16 pt] □□□□ COBBLE (65-256 mm) [12 pts]	[] [] FINE DETRITUS [3 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts]		E
SAND (<2 mm) [6 pts]		
Tolal of Percentages of Bidr Stabs, Bouldar, Cobble, Bedrock	0 (A) Z (B) Z	A+B
SCORE OF TWO MOST PREDOMINATE SUBST		
2. Maximum Pool Depth (Measure the ma	aximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Paol Depth
evaluation. Avoid plunge pools from road	culverts or storm water pipes) (Check ONLY one box);	Max = 30
D > 30 centimeters [20 pts] □ > 22.5 - 30 cm [30 pts]	[_] > 5 ແກຸ - 10 cm [15 pis] [_] < 5 ເກ [5 pis]	20
∠ > 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pis]	
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the		Bankfull Width
□ > 4.0 meters (> 13') [30 pts] >2 → 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts]	□ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15.pts] □ ≤ 1.0 m (≤ 3' 3") [5 pts]	Max=30
> 1,5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]     > 20 pts]	35	25
COMMENTS	AVERAGE BANKFULL WIDTH (molers)	
MATCHING THE REPORT OF THE		
RIPARIAN ZONE AND FLOODP		
<u>RIPARIAN WIDTH</u> L R (Per Bank)	<u>FLOODPLAIN QUALITY</u> L <u>R</u> (Most Predominant per Bank) <u>L</u> R_	
U C C Dailly Wide >10m	🛛 💭 Mature Forest, Wetland 🛛 🖓 🔲 Conservation Tillage	
Moderale 5-10m	Immature Forest, Shrub or Old     I	
ДІЯ — Narrow <5m	D Residential Park New Field Open Pasture, Row	
O O None	Fenced Pasture     Crop     G     G     Mining or Construction	
COMMENTS		-
FLOW REGIME (At Time of Evel	luation) (Check ONLY one box);	
Subsurface flow with Isolated pool		
		-
🔲 None 🛛 🎾	er 61 m (200 ft) of channel) (Check ONLY one box): 1.0	
G 0.5 O	1.5 🖸 2.5 🚺 >3	
STREAM GRADIENT ESTIMATE	Moderate (2 (/100,8) Moderate to Severe Severe (10 ///1)	
$\bigcup$ Flat (0.5 M100 F) $\bigcup$ Flat to Moderate		N R)

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ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

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QHEI PERFORMED? - TYee	Attach Completed QHEI Form)
	Distance from Evaluated Stream <u>/ / ////</u> Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MARS, INCLUDING THE ENTIRE WATERS USGS Quadrangle Name: <u>Payne</u> OHA NRCS Soil M County: <u>Paunahar</u> NRCS Soil M County: <u>Paunahar NRCS NRCS NRCS NRCS NRCS NRCS NRCS NRCS</u>	SHED AREA. CLEARLY MARK THE SITE LOCATION Map Page: NRCS Soil Map Stream Order
Elevated Turbidity? (Y/N): Canopy (% open): Were samples collected for water chemistry? (Y/N): (Note lab sample no. of Field Measures: Temp (*C) Dissolved Oxygen (mgA) pH (S.U Is the sampling reach representative of the stream (Y/N) If not, please explain	J.) Conducăvity (µmhos/em)
Additional comments/description of pollution impacts:       Additional comments/description of pollution impacts:         BIOTIC EVALUATION         Performed? (Y/N):       (if Yes, Record all observations. Voucher collections op ID number. Include appropriate field data sheets from the Fish Observed? (Y/N)         Fish Observed? (Y/N)       Voucher? (Y/N)         Salamanders Observed? (Y/N)       Voucher? (Y/N)         Aquatic Macroinvert       Comments Regarding Biology.	vional, NOTE; all voucher eamples must be labeled with the site he Primary Headwater Habitat Assessment Manual) N Voucher? (Y/N) tebrates Observed? (Y/N) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREE Include important landmarks and other features of interest for site evaluation Arctive Ag, Fr FLOW	ion and a narrative description of the stream's location

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June 20, 2008 Revision

PHWH Form Page - 2

SITE NAME/LOCATION	LAT 4.04 58 LONG 7 4.05 RIVER CODE RIVER MILE	7 <i>0</i> s <sub>7</sub> , ,
DATE <u>978 973 -</u> SCORER <u>K</u>	S Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction	tions
STREAM CHANNEL		ERY
(Max of 40). Add total number of s TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (66-256 mm) [12 pts]	Image: Signed state     Image: Signed st	HHEI Metric Points Substrate Max = 40
GRAVEL (2-54 mm) [9 pts] SAND (<2 mm) [8 pts] Total of Percentages of Bidr Siebs, Boulder, Cobble, Bedr SCORE OF TWO MOST PREDOMINATE	(B) (B) (B) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	<u></u> А+в
Maximum Pool Depth (Measure evaluation. Avoid plunge pools fro 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	com road culverts or storm water pipes) (Check ONLY one box): 5 cm 10 cm [15 pts] 5 cm [5 pts]	Pool Depth Max = 30 25
3. BANK FULL WIDTH (Measured → 4.0 meters (> 13) [30 pts] → 3.0 m - 4.0 m (> 9.7 - 13) [25 pt → 1.5 m - 3.0 m (> 4' 6' - 9' 7' ]20 ;	l as the average of 3-4 measurements) (Check ONLY one box):	Bankfull Width Max=30
	This information must also be completed	
na an in the second		
RIPARIAN ZONE AND FI <u>RIPARIAN WIDTH</u> L R (Per Bank) I Wide>10m I Moderate 5-10m II Nanrow <5m III Nane COMMENTS		
RIPARIAN WIDTH           L R         (Per Bank)           Image: Description of the state	FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream from the stream fro	
RIPARIAN WIDTH         L       R       (Per Bank)         Image: Colspan="2">Image: Colspan="2" Image: Colspa	FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream from the stream fro	

	EAM INFORMATI <u>ON (This Information Must Also be Completed):</u> ERFORMED7 - 🗍 Yes,Æ No - QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNS ZWWH Name:	TREAM DESIGNATED USE(S)
CWH Name:	Distance from Evaluated Stream
JEWH Name:	Distance from Evaluated Stream
	IG: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
JSGS Quadrangle	Name: Yayne, Ohto NRCS Soll Map Page: NRCS Soil Map Stream Order
County:	Name: <u>Payne, 0640</u> NRCS Soll Map Page: NRCS Soil Map Stream Order Mine: Township/City: <u>Addressed Twp :</u>
MISCEL	LANEOUS
Base Flow Conditio	ons? (Y/N): Date of last precipitation: Quantity:
Photograph Inform	
· 1	? (Y/N): N Canopy (% open): 100
Nere samples colls	ected 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)
s the sampling rea	ach representative of the stream (Y/N) / If not, please explain:
	nts/description of pollution Impacts:
	EVALUATION
Performed? (Y/N):	(If Yes, Record all observations, Voucher collections optional, NOTE: all voucher samples must be labeled with the s ID number, Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y	
Frogs or Tadpoles	Objerved? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regard	fing Biology. N/A
	<u></u>
DRA	WING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
DRA	WING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): ortant landmarks and other features of interest for site evaluation and a narrative description of the stream's location
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June 20, 2008 Revision

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PHWH Form Page - 2

CrisEPA Primary H	eadwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) : 50
DATE <u>7/73/15</u> SCORER <u>KAC</u> NOTE: Complete All Items On This Form	REVER BASIN Mailunge Z. DRAINAGE AREA (m <sup>2</sup> ) <u>CD</u> AT. <u>410410</u> LONG <u>84.4407</u> RIVER CODE RIVER MILE COMMENTS <u>ACCENTING</u> DECOVERING RECENT OF NO RECOVERY Refer to "Field Evaluation Manual for Ohio'S PHWH Streams" for Instructions IRAL CHANNEL RECOVERED RECOVERING RECENT OF NO RECOVERY
MODIFICATIONS	y type of substrate present. Check ONLY two predominant substrate TYPE boxes
(Max of 40). Add total number of significan	Artificial (Max of 8). Final metric score is sum of boxes A & B.       HHEI         Mathematical structure       Mathematical score is sum of boxes A & B.         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       Mathematical score is sum of boxes A & B.         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       HHEI         Mathematical score is sum of boxes A & B.       Substrate         Mathematical score is sum of boxes A & B.       Substrate         Mathema
Bidr Slabs, Boulder, Cobble, Bedrock	ximum pool depth within the 61 meter (200 ft) evaluation reach at the time of culverts or storm water pipes) (Check ONLY one box):       Pool Depth Max = 30         > 5 cm = 10 cm [15 pts]       20
	MAXIMUM POOL DEPTH (contimeters):
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. (> 4'8' - 9'7') [20 pts]	average of 3-4 measurements) (Check ONLY one box): $2 \times 10 \text{ m} = 1.5 \text{ m} (>3.3^{\circ} + 4.8^{\circ}) (15 \text{ pts})$ $2 \times 10 \text{ m} (< 3^{\circ} 3^{\circ}) (5 \text{ pts})$ $3 \times 10 \text{ m} (< 3^{\circ} 3^{\circ}) (5 \text{ pts})$ $3 \times 10 \text{ m} (< 3^{\circ} 3^{\circ}) (5 \text{ pts})$ $3 \times 10 \text{ m} (< 3^{\circ} 3^{\circ}) (5 \text{ pts})$ $3 \times 10 \text{ m} (< 3^{\circ} 3^{\circ}) (5 \text{ pts})$ $3 \times 10 \text{ m} (< 3^{\circ} 3^{\circ}) (5 \text{ pts})$ $3 \times 10 \text{ m} (< 3^{\circ} 3^{\circ}) (5 \text{ pts})$ $3 \times 10 \text{ m} (< 3^{\circ} 3^{\circ}) (5 \text{ pts})$ $3 \times 10 \text{ m} (< 3^{\circ} 3^{\circ}) (5 \text{ pts})$
COMMENTS	AVERAGE BANKFULL WIDTH (meters)
RIPARIAN ZONE AND FLOODP <u>RIPARIAN WIDTH</u> L R (Per Bank) I I Wide >10m I II Wide >10m	This Information must also be completed         LAIN QUALITY         FLOODPLAIN QUALITY         L       R         (Most Predominant per Bank)       L         R       Mature Forest, Wetland         Mature Forest, Shrub or Old       Immature Forest, Shrub or Old
23.□ Narrow <5m □ □ None COMMENTS	Image: Description     Image: Description     Open Pasture, Row Crop       Image: Description     Image: Description     Open Pasture, Row Crop       Image: Description     Image: Description       Image: Description     Image: Description
FLOW REGIME (At Time of Eval Stream Flowing Subsurface flow with isolated poo COMMENTS	Moist Channel, isolated pools, no flow (intermittent)
SINUOSITY (Number of bends p 	er 61 m (200 11) of channel) (Check ONLY one box): 1.0
STREAM GRADIENT ESTIMATE	☐ Moderate (2 #/190 ft)

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WHEI PERFORMEDY - LJ YES (20,NO	o QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	e)
WWH Name: Flateroul Care	Distance from Evaluated Stream 2.2-141
CWH Name:	
_ EWH Name:	Distance from Evaluated Stream
	, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
ISGS Quadrangle Name: Taivide, C	CAPE NRCS Soil Map Page: NRCS Soil Map Stream Order
nymuun) é ghi, if thé	Township/City: Harrisen Twe
	/ Output prise price by the control of the price of the control of the con
MISCELLANEOUS	× 1×
ase Flow Conditions? (Y(N): Date of las	ast precipitation: CA b f
· · · · · · · · · · · · · · · · · · ·	1 10-23
levated Turbidity? (Y/N);Canopy (	
Vere samples collected for water chemistry? (Y/N)	a): (Note lab sample no. or id, and attach results) Lab Number:
ield Measures: Temp (*C) Dissolved i	d'Oxygen (mg≬)pH (S.U.)Conductivity (µmhos/cm)
the sampling reach représentative of the stream	nt (Y/N)If not, please explain:
dditional comments/description of pollution impac	icts: Application Destimate Difth
BIOTIC EVALUATION	
	observations. Voucher collections optional, NOTE all voucher samples must be labeled with th e appropriate field data sheels from the Primary Headwater Habitat Assessment Manual)
rogs or Tadpoles Observed? (Y/N) Voucher	Salamanders Observed? (Y/N) Voucher? (Y/N) er? (Y/N) Aquatic Macroinvertebrales Observed? (Y/N) Voucher? (Y/N)
comments Regarding Biology. /////	
Constituents regarding biology. V V V	· · · · · · · · · · · · · · · · · · ·
DRAWING AND NARRATIVE	E DESCRIPTION OF STREAM REACH (This <u>must</u> be completed);
DRAWING AND NARRATIVE	E DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
DRAWING AND NARRATIVE	E DESCRIPTION OF STREAM REACH (This <u>must</u> be completed);
DRAWING AND NARRATIVE	E DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
DRAWING AND NARRATIVE	E DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
DRAWING AND NARRATIVE	E DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): batures of Interest for sile evaluation and a narrative description of the stream's location where A.S. F.S. H. Fall Hull Fall Hull Very Manuel Content of the stream's location
DRAWING AND NARRATIVE	EDESCRIPTION OF STREAM REACH (This <u>must</u> be completed): patures of Interest for sile evaluation and a narrative description of the stream's location where As, FFR A Fruit Mu
DRAWING AND NARRATIVE Include Important landmarks and other fea	EDESCRIPTION OF STREAM REACH (This <u>must</u> be completed): patures of Interest for sile evaluation and a marrative description of the stream's location where AS, FSO FROM H
DRAWING AND NARRATIVE Include Important landmarks and other fea	E DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): batures of Interest for sile evaluation and a narrative description of the stream's location where A.S. F.S. H. Fall Hull Fall Hull Very Manuel Content of the stream's location
DRAWING AND NARRATIVE Include Important landmarks and other fea	EDESCRIPTION OF STREAM REACH (This <u>must</u> be completed): satures of Interest for sile evaluation and a narrative description of the stream's location while As. Fred Full Fred Hard and Crassel Ergation and Crassel Ergation

June 20, 2009 Revision

<b>ChieFPA</b> Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) :	
SITE NUMBER RIVER BASIN MALAWARE R DRAINAGE AREA (m <sup>P</sup> ) <u>C1</u> LENGTH OF STREAM REACH (#) <u>200</u> LAT. <u>41.03</u> <u>44</u> LONG <u>54.44</u> <u>D7</u> RIVER CODE RIVER MILE DATE <u>9103/15</u> SCORER <u>FAC</u> COMMENTS <u>ROADSLE STREAM</u> NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruc-	<u></u>
STREAM CHANNEL ON NONE / NATURAL CHANNEL OR RECOVERED RECOVERING RECENT OF NO RECOVERING RECENT OF NO RECOVERED MODIFICATIONS	udiouètedée d
TYPE       PERCENT       IVPE       PERCENT       IVPE         Image: Description of the state	HHEI Metric Points Substrate Max = 40
Bidr Slebs, Boulder, Cobble, Bedrock	A + B Pool Depth Max = 30
COMMENTS	Bankfull Width Max=30
This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream or <u>RIPARIAN WIDTH</u> L       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         I       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         I       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         I       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         I       Moderate 5-10m       I       R       Residential, Park, New Field       Immature Forest, Shrub or Old       Open Pasture, Row Crop         I       Narrow <5m       I       Residential, Park, New Field       Immature Grop       Mining or Construction	
FLOW REGIME (At Time of Evaluation)       (Check ONLY one box):         Stream Flowing       Image: Stream Flowing         Subsurface flow with isolated pools (Interstitial)       Image: Stream Flowing         COMMENTS       Image: Stream Flowing         Subsurface flow with isolated pools (Interstitial)       Image: Stream Flowing         COMMENTS       Image: Stream Flowing         Subsurface flow with isolated pools (Interstitial)       Image: Stream Flowing         Stream Flowing       Image: Stream Flowing         Subsurface flow with isolated pools (Interstitial)       Image: Stream Flowing         Stream Flowing       Image: Str	
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       >5         STREAM GRADIENT ESTIMATE       Moderate (2 M/100 ft)       Moderate to Severe       Severe (10 M/100 ft)	

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QHEI PERFORMED? - 🗍 Yeş 🖾 No - QHEI Score	
DOWNSTREAM DESIGNATED USE(S)	to an and a second s
	Distance from Evaluated Stream
	Distance from Evaluated Stream
	Distance from Evaluated Stream
interesting to the second s	THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
ISGS Quadrangle Name: <u>Fay Ne, Oh 90</u>	NRCS Soll Map Page: NRCS Soll Map Stream Order
County: Pacifating	Township/City. Harrison Tup.
MISCELLANEOUS /	च च
Base Flow Conditions? (Y/N): Date of last precipitation	n: La hike Quantity:
	un <u>t for second</u> Quantity.
Photograph Information:	(.a.)
Elevated Turbidity? (Y/N): Canopy (% open);	
Vere samples collected for water chemistry? (Y/N): $N$ (N	lole lab sample no, or id, and attach results) Lab Number:
feld Measures: Temp (°C) Dissolved Oxygen (mg/	1) pH (S.U.) Conductivity (µmhos/cm)
the sampling reach representative of the stream (Y/N)	if not, please explain:
Additional comments/description of pollution impacts:	nikstele Dertmage Ditch
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations, N	1/anakan alƙadan anƙana) NÖYEr-Uninisha a'anata minika tatut tu Mustan d
	Voucher collections optional. NOTE: all voucher samples must be labeled with the site ield data sheets from the Primary Headwaler Habitat Assessment Manual)
Fish Observed? (Y/N)	nders Observed? (Y/N) Voucher? (Y/N)
rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N)	, Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
	·····
· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
an a	an a
DRAWING AND NARRATIVE DESCRIP	PTION OF STREAM REACH (This must be completed):
Include Important landmarks and other features of Inte	rest for site evaluation and a narrative description of the stream's location
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ChieFFA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3 SITE NAMELOCATION	A (m <sup>12</sup> ) <u>260</u> 39.111 A MILE A DATA for Instructions
1.       SUBSTRATE (Estimate percent of every type of substrate present, Check ONLY two predominant substrate TYPE (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B         TYPE       BLDR SLABS [16 pts]       PERCENT       TYPE         BOULDER (>256 mm) [16 pts]       DIM       SILT [3 pt]       PERCENT         BEDROCK [16 pt]       DIM       PERCENT       PERCENT         SCOBBLE (65-256 mm) [12 pts]       DIM       CLAY or HARDPAN [0 pt]       PI         SAND (<2 mm) [9 pts]	HHEI Metric Points Substrate Max = 40 G A+B
> 22.5 - 30 cm [30 pts]       < 5 cm [5 pts]	Bankfull Width Max=30 9
This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY       CNOTE: River Left (L) and Right (R) as looking downshing         RIPARIAN WIDTH       FLOODPLAIN QUALITY       CNOTE: River Left (L) and Right (R) as looking downshing         L       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         I       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         I       R       (Per Bank)       L       R       (Most Predominant per Bank)       L       R         I       Moderate S-10m       Immature Forest, Shrub or Old       Urban or Ind         Moderate S-10m       Immature Forest, Shrub or Old       Urban or Ind         Moderate S-10m       Immature Forest, Shrub or Old       Urban or Ind         Moderate S-10m       Immature Forest, Shrub or Old       Urban or Ind         Moderate S-10m       Immature Forest, Shrub or Old       Urban or Ind         Moderate S-10m       Immature Forest, New Field       Moderate Science       Open Pasture Crop         None       Flock       Flock ONLY one box):       Moist Channel, isolated pools, no flow (Ir Science)       Moist (Epherneral)         Sthubost TY (Number of bends per 61 m (200 ft) of channel	n Tillage lustrial re, Row anstruction

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ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

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QHEI PERFORMED? - 🗌 Yes 🖾 No QHEI Score (If Yes, Attach C	ompleted QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	12 1127
Downstradin Designated out of the contract of	Istance from Evaluated Stream <u>7. <u>7797</u></u>
	stance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED ARE	
USGS Quadrangle Name: Payha Ohto NRCS Soll Map Page	NRCS Soll Map Stream Order
county: Paul Ming Township / City: Hor	risan Twp.
MISCELLANEOUS	
Base Flow Conditions? (YAN): Date of last precipitation:K.	Quantitic
Photograph Information: YL	
Elevated Turbidity? (Y/N): N Canopy (% open); 100	
Were samples collected for water chemistry? (Y/N): <u>M</u> (Note lab sample no. or id. and a	No 6
Were samples collected for water chemistry? (Y/N): <u>J</u> (Note lab sample no, of id, and a	ittach results) Lad Number;
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
	1
Additional comments/description of pollution impacts: ASTICAL (11.1731) 210	Muge difen
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. No	
Fish Observed? (Y/N)       Voucher? (Y/N)       Salamanders Observed? (Y/N)         Frogs or Tadpoles Observed? (Y/N)       Voucher? (Y/N)       Aquatic Macroinvertebrates Observed?	Voucher? (Y/N)
Comments Regarding Biology.	
· · · · · · · · · · · · · · · · · · ·	
	ACH (This must be completed):
DRAWING AND NARRATIVE DESCRIPTION OF STREAM RE	parrative description of the stream's location
A Kilaa Geld	
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Active ag field narrow sensort r	1 amonth -
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PHWH Form Page

	Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization	
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

#### Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <u>http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</u>

Name: C/ Y Date: Affillation: Smith Group F Address: Mannee, OH Stall 77 Phone Number: to be had e-mail address: itham. 10. COM Name of Wetland: Vegetation Communit(ies): 11111 HGM Class(es): Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. ALES LES YUN ha ha Acture As. Freld Lat/Long or UTM Coordinate / 342708.953, 515795555 USGS Quad Name County Township Section and Subsection Hydrologic Unit Code Site Visit National Wetland Inventory Map Ohio Wetland Inventory Map Soil Survey المريد بيريد المريد Delineation report/map 

## **Background Information**

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Wetland Size (acres, hectares): 🦯 🏹 🟦 🔿 🔿	
Skotobi (politido porte grani al-ti- ti- titi titi	
Wetland Size (acres, hectares): < 0,10 a.c. Sketch: Include north arrow, relationship with other surface SEE DECLINERTON FIGURE	waters, vegetation zones, etc.
SER DELIVERYON HENKE	ີ່. ນາຍແລ້
	*
	•
Comments, Narrative Discussion, Justification of Category C	hanges
	nanges.
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## Scoring Boundary Worksheet

Martin Carlos de 
INSTRUCTIONS. The initial step in completing the ORAM is 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 "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaties. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous 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. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly, Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, 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 patchwork on the landscape, wetlands divided by artificial boundaries 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 Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 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- induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.		
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., 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.		V
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, takes or rivers, or for dual classifications.		2

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 obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <u>http://www.dur.state.oh.us/dnap</u>. The remaining 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 habitat" is legally defined in the Endangered Species Act 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 3 Headquarters 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	Círcie one	_ <del> </del>
1	Critical Habitat. Is the wetland in a township, section, or subsection of		1 allow
	I a United States Geological Survey 7.5 minute Quadrangle that has	YES	(NO-
	been designated by the U.S. Fish and Wildlife Service as "edition"	Wetland should be	Go to Question 2
	habitat" for any threatened or endangered plant or animal species?	evaluated for possible	
	Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the indiana Bat has	Category 3 status	
	had critical habital designated (50 CER 17,95(a)) and the pining ployer	Go to Question 2	
2	has had critical habitat proposed (65 FR 41812 July 6, 2000)		
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed	YES	NO
	threatened or endangered plant or animal species?	Wetland is a Category	Go to Question 3
		3 wetland.	Go to Question 5
3	Documented High Quality Wetland. Is the wetland on record in	Go to Question 3	
	Natural Heritage Database as a high quality wetland?	100	NO
		Wetland is a Category	Go to Question 4
		3 wetland	
		Go to Question 4	
4	Significant Breeding or Concentration Area. Does the wetland	YES	NO)
	contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Motoria - Out	
	the stores chick culds at a support concentration steas t	Wetland is a Category 3 wetland	Go to Question 5
5	Category 1 Wetlands, is the wetland less than 0.5 hectares (1 acre)	Go to Question 5	
-	in size and hydrologically isolated and either 1) comprised of	YES	NO
	vegetation that is dominated (greater than eighty per cent area) cover	Wetland is a Category	Ga lo Question &
	by Phalaris arundinacea, Lythrum salicaria, or Phragnities australis, or 2) an acidic pond created or excavated on mined lands that has little or	1 wetland	
	no vegetation?	Go to Question 6	
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES'	( NO
	significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagnum spp., 3) the acidophilic mosses have >30%		Construction of the second sec
	cover, 4) at least one species from Table 1 is present, and 5) the	Wetland is a Category 3 welland	Go to Question 7
	cover of invasive species (see Table 1) is <25%?	o would he	
7	Ease la the wetlend o review and the day of the	Go to Question 7	Same and the second
<u>.</u>	Fens, Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free	YES	NO
	flowing, mineral rich, ground water with a circumneutral nh (5.5-9.0)	Wetland is a Category	Go to Question 8a
	and with one or more plant species listed in Table 1 and the cover of Invasive species listed in Table 1 is <25%?	3 wetland	
		Go to Question 8a	
3a	"Old Growth Forest," Is the wetland a forested wetland and is the	YES	NO
	forest characterized by, but not limited to, the following characteristics		Comment
	overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence	Wetland is a Category 3 wetland.	Go to Question 8b
	of human-caused understory disturbance during the nest an to 100	o weganu.	
1	Vears; an all-aged structure and multilayered caponies; angregations of	Go to Question 8b	
	canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?		

8b	Mature forested wattands to the		5
	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trace with long of	YES	(NO)
	deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	1
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	- <u>N</u>
95	I SISYCHOL, UL BIDID & TIDI I'ATV to I SKA Eria that is accomplete to the Lo	Go to Question 9b	Go to Question 10
9U	prevent erosion and the loss of arruatic plante, i.e. the welland to	YES	NO <sup>2</sup>
	partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
9c:	Are Lake Erie water levels the welland's primary hydrological influence,	Go to Question 10	( NO)
	Let the welland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an		NO
	estualine weband with lake and over influenced by the target	Go to Question 9d	Go to Question 10
	moluus samuudi uebusiiion wetiandis estriarine motionde et en a p		
9d	wellands, or those dominated by submersed aquatic vegetation. Does the wetland have a predominance of native species within its		
	Vegelation communities, although non-neffice or distudement to the	YES	(NO)
ļ	native species can also be present?	Wetland is a Category	Go to Question 9e
·Í	· · · · · · · · · · · · · · · · · · ·	3 wetland	
9e	Does the wetland have a predominance of non-native or disturbance	Go to Question 10	and the second s
	tolerant native plant species within its vegetation communities?	YES	NO
		Wetland should be evaluated for possible Category 3 status	Go to Question 10
10		<u>Go to Question 10</u>	
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be	YES	(NO)
	substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the within	) Wetland is a Category 3 wetland,	Go to Question 11
1	grammeous vegetation tasted in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance to configurate the	Go to Question 11	
	THE COMPLETE AND IS CLEARN		·
	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies	YES	$\langle NO \rangle$
·	Counties), Sandusky Plains (Myandot, Crawford, and Union	Wetland should be evaluated for possible	Complete
1	and portions of western Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Category 3 status	Quantitative Rating
	Montgomery, Van Werl etc.).	Complete Quantitative Rating	

#### Table 1. Characteristic plant species.

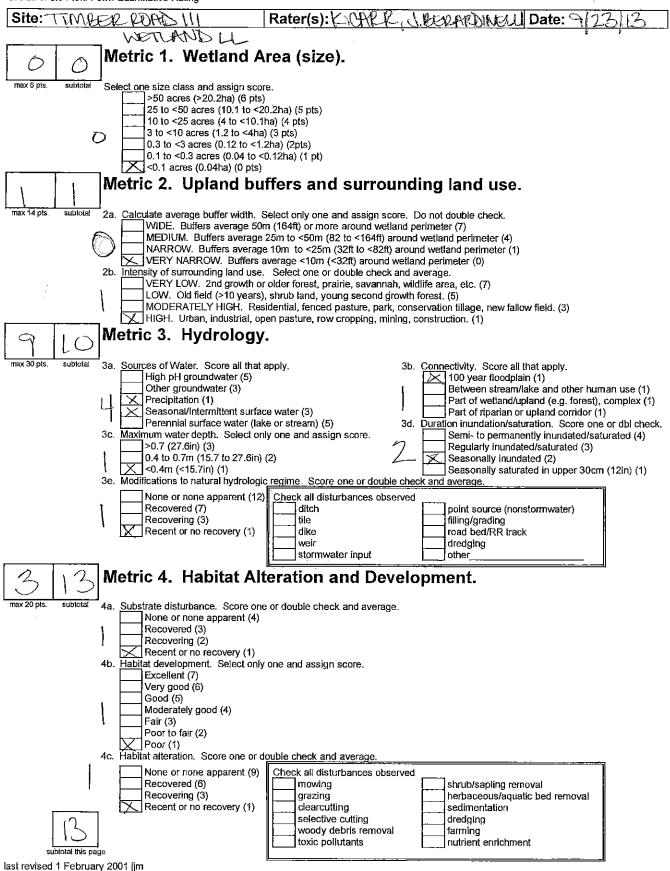
invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najaz minor Phalaris arundinocea Phragmites australis Potanogeton crispus Ranunculus ficaria Rhannus frangula Typha angustifolia Typha xglauca	Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Ertophorun viridicarinatum Gentianopsis spp. Lobelia kalmit Parnassia glauca Potentilla fruticosa Rhamus ahifolia Rhynchospora capillacea Salix candida Salix invricoides Salix serissima Solidago ohtoensis Tofieldia glutinosa Triglochin maritimum	Calla palustris Carex allantica var. capillacea Carex echinaia Carex iligosperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzerta palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium macrocarpon Vaccinium corymbosum Vaccinium corymbosum Vaccinium corymbosum Vaccinium corymbosum	Carex crypiolepis Carex Iasiocarpa Carex stricta Cladium mariscoldes Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis Calamagrostis canadensis Calamogrostis stricta Carex atherodes Carex buxbauniii Carex pullita Carex sartwellit Gentiana andrewsti Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lysimachia quadriflora Lytirum alatum Pycnanthemum virginianum Silphium terebinkinaceun Sorghastrum nutans Spartina pectinata Solidaga riddellii

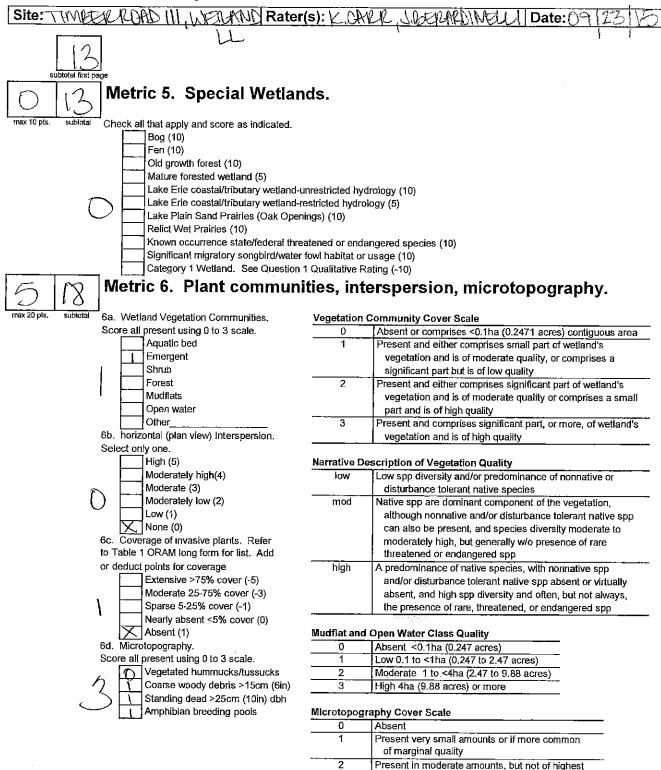
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End of Narrative Rating. Begin Quantitative Rating on next page.







End of Quantitative Rating. Complete Categorization Worksheets.

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quality or in small amounts of highest quality Present in moderate or greater amounts

and of highest quality

## **ORAM Summary Worksheet**

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		circle answer or	
		insert	Result
<u>-</u>		score	· • • • • • • • • • • • • • • • • • • •
Narrative Rating	Question 1 Critical Habitat	YESNO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES (NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	$\bigcirc$	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	9	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities		
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	18	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Construction data sensitive in 11 cm

## Wetland Categorization Worksheet

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Choices	Circle one	<u></u>	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES ( Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC. Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM.
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	<b>≥</b>	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score { fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantilative score fail with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria.	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

# Einal Category Choose one Category 1 Category 2 Category 3

## End of Ohio Rapid Assessment Method for Wetlands,

## WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

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Project/Site: Timber Road III		City/County: P	aulding		Sampling Date: 9/22/15	
Applicant/Owner: EDP Renewables		State:			Sampling Point: SP-AA-1	
Investigator(s): J. Stratigakos, J.Bera	rdinelli	Section, Towns				
Landform (hillslope, terrace, etc.): Ripa	rian Fringe	Local relief (conca	ve convex no	ne): Concave	Slope (%): -	
	Lat: _1:				Datum: OH SP 83	
Soil Map Unit Name: Hoytville silty cla	y, 0 to 1 percen	t slope (HtA)		NWI classific		
Are climatic / hydrologic conditions on th						
Are Vegetation, Soil, or I						
Are Vegetation, Soil, or I				explain any answe		
SUMMARY OF FINDINGS - A			oint locatio	ons, transects	, important features, etc.	
					· · · · · · · · · · · · · · · · · · ·	
Hydrophytic Vegetation Present?	Yes X	NU	ampled Area Wetland?	<sub>Yes</sub> ×	No	
Hydric Soil Present?	Yes X	NU				
Wetland Hydrology Present? Remarks: (Explain alternative procedu			ptional Wetlan	d Site ID: Wetlan		
HYDROLOGY		·				
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of two required)	
Primary Indicators (minimum of one is	required; check al	all that apply) Surface S			Cracks (B6)	
Surface Water (A1)	W	ater-Stained Leaves (B9)		Drainage Pa	itterns (B10)	
High Water Table (A2)	Ac	juatic Fauna (B13)		Moss Trim L	ines (B16)	
Saturation (A3)	Ma	arl Deposits (B15)		Dry-Season	Water Table (C2)	
Water Marks (B1)	Hy	/drogen Sulfide Odor (C1)		Crayfish Bu	rows (C8)	
Sediment Deposits (B2)		didized Rhizospheres on Liv			isible on Aerial Imagery (C9)	
Drift Deposits (B3)		esence of Reduced Iron (C4			Stressed Plants (D1)	
Algal Mat or Crust (B4)		ecent Iron Reduction in Tille	d Soils (C6)	K Geomorphic		
Iron Deposits (B5)		hin Muck Surface (C7) Ther (Explain in Remarks)		Shallow Aquitard (D3) Microtopographic Relief (D4)		
Inundation Visible on Aerial Image Sparsely Vegetated Concave Sur	· · · <u> </u>	iner (Explain in Remarks)		× FAC-Neutra		
Field Observations:			-			
	No <u></u> XD			· ·		
			-			
		Depth (inches): Surface	Wetland	Hydrology Prese	nt? Yes X No	
(includes capillary fringe)						
Describe Recorded Data (stream gaug	je, monitoring wei	i, aenai photos, previous ins	pections), il av	anable.		
Remarks:			· · · ·			

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/EGETATION – Use scientific names of plants.				Sampling Poi	int: <u>SP-A</u>	<u>A-1</u>
Tree Stratum (Plot size:)	Absolute % Cover		t Indicator Status	Dominance Test worksheet:		
1				Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
2						* 9
3				Total Number of Dominant Species Across All Strata:	2	(B)
4				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC:	100	(A/B)
6				Prevalence Index worksheet:		
7					tiply by:	
	0	= Total Co	ver	OBL species x1 =		_
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =		_
1				FAC species x 3 =	-	_
2			_	FACU species x 4 =		_
3				UPL species x 5 =		-
4				Column Totals: (A)	U	_ (B)
5				Prevalence Index = B/A =		_
6				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Ve		
·· <u></u>	0	= Total Co		✓ 2 - Dominance Test is >50%		
Horb Stratum (Plot size:		- Total Ot		$\_$ 3 - Prevalence Index is $\leq 3.0^1$		
Herb Stratum (Plot size:)	50	X	FACW	4 - Morphological Adaptations <sup>1</sup> (P data in Remarks or on a separ		porting
2. <u>Carex sp.</u>	40	X	FACW	Problematic Hydrophytic Vegetati	ion <sup>1</sup> (Explai	n)
3. Juncus effusus	10		OBL	1		
4. Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and welland h be present, unless disturbed or proble		nust
5. Asclepias syriaca	5		UPL	Definitions of Vegetation Strata:		
6		·				
7				Tree – Woody plants 3 in. (7.6 cm) or at breast height (DBH), regardless of I		ameter
8				Sapling/shrub – Woody plants less th	han 3 in Di	RH
9				and greater than or equal to 3.28 ft (1		211
10				Herb – All herbaceous (non-woody) p	lants, regai	rdless
11				of size, and woody plants less than 3.	28 ft tall.	
12				Woody vines All woody vines great	ter than 3.2	8 ft in
	115	= Total Co	over	height.		
Woody Vine Stratum (Plot size:)						
1						
2						
3				Hydrophytic		
4				Vegetation		
···	0	= Total C	over	Present? Yes X No	»	
Remarks: (Include photo numbers here or on a separate	sheet.)					
、 · · · · · · · · · · · · · · · · · · ·	,					

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#### SOIL

is more than a

Sampling Point: \_\_\_\_\_SP-AA-1

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Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the in	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix			Features				
(inches)	Color (moist)		Color (moist)	<u>%</u>	_Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12	10YR 3/1	100					Clay	Moist
		<u> </u>						
· · · ·								
						<u> </u>		
·								
<u> </u>								
	<u> </u>		<u> </u>					
		<del></del>						
	<u> </u>					·		
					·			
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=Re	educed Matrix, MS	=Masked	Sand Gra	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil								for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Below	Surface	(S8) ( <b>LRF</b>	R,	2 cm M	1uck (A10) (LRR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		MLRA 149B)				Coast I	Prairie Redox (A16) (LRR K, L, R)
Black Hi			_ Thin Dark Surfac					lucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	Loamy Mucky M			, L)		urface (S7) (LRR K, L)
	t Layers (A5)	(0.4.4)	Loamy Gleyed N		}			lue Below Surface (S8) (LRR K, L)
	b Below Dark Surface ark Surface (A12)	(ATT)	Depleted Matrix Redox Dark Sur					ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)
-	fucky Mineral (S1)	_	_ Depleted Dark Su		7)			ont Floodplain Soils (F19) (MLRA 149B)
	Bleyed Matrix (S4)		Redox Depressi		• /			Spodic (TA6) ( <b>MLRA 144A, 145, 149B</b> )
	ledox (S5)			( )				arent Material (F21)
	Matrix (S6)							hallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, M	LRA 149B)					Other (	(Explain in Remarks)
-								
	f hydrophytic vegetati	ion and wetla	nd hydrology must	t be prese	nt, unless	disturbed	or problematic	
	Layer (if observed):							
Туре:			_					
Depth (in	ches):		_				Hydric Soil	Present? Yes <u>×</u> No
Remarks:								

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## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

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Project/Site: Timber Road III		City/County: Paulding Sampling Date: 9/22/15			
Applicant/Owner: EDP Renewables				Sampling Point: SP-AA-1	
Investigator(s): J. Stratigakos, J.Bera	vestigator(s): J. Stratigakos, J.Berardinelli Section, Township, Range:				
Landform (hillslope, terrace, etc.): Ripa		Local relief (concave, convex,	none). Concave	Slope (%):	
	Lat: 13470			OH SP 83	
Soil Map Unit Name: Hoytville silty cla			NWI classifi		
Are climatic / hydrologic conditions on th	ne site typical for this tim		(If no, explain in F		
Are Vegetation, Soil, or				present? Yes X No	
Are Vegetation, Soil, or	· · · ·		ed, explain any answe		
SUMMARY OF FINDINGS - A				·	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No Yes No Yes X	within a Wetland?		No nd AA	
Remarks: (Explain alternative procedu					
HYDROLOGY					
Wetiand Hydrology Indicators:			Secondary Indic	ators (minimum of two required)	
Primary Indicators (minimum of one is	required; check all that	apply)	Surface Sol	Cracks (B6)	
Surface Water (A1)		tained Leaves (B9)	Drainage Pa	atterns (B10)	
High Water Table (A2)		Fauna (B13)	Moss Trim L		
Saturation (A3)		posits (B15)		Water Table (C2)	
Water Marks (B1)		en Sulfide Odor (C1)	Crayfish Bu		
Sediment Deposits (B2)		d Rhizospheres on Living Roots (C		/isible on Aerial Imagery (C9)	
Drift Deposits (B3) Algal Mat or Crust (B4)		e of Reduced Iron (C4)		Stressed Plants (D1)	
Algan Matter Crust (B4)		Iron Reduction in Tilled Soils (C6) ck Surface (C7)	Shallow Aqu		
Inundation Visible on Aerial Image		Explain in Remarks)		aphic Relief (D4)	
Sparsely Vegetated Concave Surl			× FAC-Neutra		
Field Observations:	. ,			. ,	
Surface Water Present? Yes	No 🗙 Depth (	(inches):			
	No Depth (	1			
	K No Depth (		nd Hydrology Prese	nt? Yes X No	
(includes capillary fringe)					
Describe Recorded Data (stream gaug	e, monitoring weil, aeria	al priotos, previous inspections), ir	available:		
Remarks:					

## **VEGETATION** – Use scientific names of plants.

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Sampling Point:	SP-AA-1

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1

Tree Stratum (Plot size:)	Absolute % Cover	Dominant		Dominance Test worksheet:
				Number of Dominant Species That Are OBL EACW or EAC: $2$ (A)
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
··		= Total Co		<u>Total % Cover of:</u> <u>Multiply by:</u> OBL species x 1 =0
			ACI	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x3 =
1				FACU species x 4 =
2		<u> </u>	·	UPL species x 5 =
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7	~		·	$\sim$ 2 - Dominance Test is >50%
		= Total Co	ver	$3$ - Prevalence Index is $\leq 3.0^{\circ}$
Herb Stratum (Plot size:)				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Phalaris arundinacea	50	X	FACW	data in Remarks or on a separate sheet)
2. Carex sp.	40	×	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Juncus effusus	10		OBL	
4. Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
- Asclepias svriaca	5		UPL	be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8			·	Sapling/shrub – Woody plants less than 3 in. DBH
9			·	and greater than or equal to 3.28 ft (1 m) tall.
10				Herb All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
	115	= Total Co		height.
Woody Vine Stratum (Plot size:)	·	10101 00		
1				
2			·	
3				Hydrophytic
4				Vegetation Present? Yes X No
	0	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			· · · · · · · · · · · · · · · · · · ·
	<u> </u>			

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Sampling Point: \_\_\_\_\_\_

Conservation (Conservation)
 Conservation (Conservation)

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OIL			Sampling Poir	nt:SP-AA-1
Profile Description: (Desc	ribe to the dept	n needed to document the indicator or confirm t	he absence of indicators.)	
Depth <u>Mat</u>		Redox Features		
inches) Color (mois	<u>t) %</u> _	Coior (moist) % <u>Type</u> Loc <sup>2</sup>	Texture Remarks	
0-12 10YR 3/	1 100		Clay Moist	t
				<u> </u>
				<u> </u>
			····	
	<u> </u>			
Type: C=Concentration, D ydric Soil Indicators:	=Depletion, RM=	Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=N Indicators for Problematic Hydri	
Histosol (A1)		Polyvalue Below Surface (S8) (LRR R,	2 cm Muck (A10) (LRR K, L, I	
Histosof (AT) Histic Epipedon (A2)	-	MLRA 149B)	Coast Prairie Redox (A16) (LF	
Black Histic (A3)		Thin Dark Surface (S9) (LRR R, MLRA 149B)	5 cm Mucky Peat or Peat (S3)	
_ Hydrogen Sulfide (A4)	-	Loamy Mucky Mineral (F1) (LRR K, L)	Dark Surface (S7) (LRR K, L)	
	-		Poiyvalue Below Surface (S8)	
_ Stratified Layers (A5)	-	Loamy Gleyed Matrix (F2)		
_ Depleted Below Dark S		Depleted Matrix (F3)	Thin Dark Surface (S9) (LRR	
Y Thick Dark Surface (A1)		Redox Dark Surface (F6)	Iron-Manganese Masses (F12	
Sandy Mucky Mineral (\$	S1) _	Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F1	
Sandy Gleyed Matrix (S	54)	Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 1/	44A, 145, 149
Sandy Redox (S5)			Red Parent Material (F21)	
Stripped Matrix (S6)			Very Shallow Dark Surface (T	F12)
Dark Surface (S7) (LRF	R R, MLRA 149B	)	Other (Explain in Remarks)	
Indicators of hydrophytic ve Restrictive Layer (if obser		tland hydrology must be present, unless disturbed	or problematic.	
Туре:	·,·		Undels Soil Bresset? Voc. X	No
Depth (inches):			Hydric Soil Present? Yes X	No
(emarks:				

OrioEFA Primary Headwater Habitat Evaluation For HHEI Score (sum of metric	cs 1, 2, 3) :
SITE NUMBERRIVER BASIN/MOUTHLE RAIN	
DATE 7/23/15 SCORER KAC COMMENTS Read State Diffe	h
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH S STREAM CHANNEL ONONE / NATURAL CHANNEL OR RECOVERED RECOVERING	ECENT OR NO RECOVERY
<ol> <li>SUBSTRATE (Estimate percent of every type of substrate present, Check ONLY two predominant subs (Max of 40), Add total number of significant substrate types found (Max of 6). Final metric score is sum of b</li> </ol>	oxes A & B. HHE
TYPE     PERCENT     TYPE       DD     BLOR SLABS (16 DIS)     DD     SLT IS PU	PERCENT Metric Points
BOULDER (>256 mm) [16 pts]         D         LEAF PACKAWOODY DEBRIS [3 pts]           BEDROCK [16 pt]         D         FINE DETRITUS [3 pts]	Substrate
COBBLE (65-256 mm) [12 pts]     COBBLE (65-256 mm) [12 pts]     GRAVEL (2-64 mm) [9 pts]     GRAVEL (2-64 mm) [9 pts]     GRAVEL (2-64 mm) [9 pts]	10 max - 40
Image: Sand (<2 mm) [6 pts]	
Total of Percentages of (A) Bidr Slabs, Boulder, Cobble, Bedrock	(B) 3 A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRAT	
<ol> <li>Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach evaluation. Avaid plunge pools from road culverts or storm water pipes) (Check ONLY one box):</li> </ol>	et the time of Pool Depth Max = 30
□       > 30 centimeters [20 pts]       □       > 5 cm = 10 cm [15 pts]         □       > 22.5 ± 30 cm [30 pts]       □       < 5 cm [5 pts]	25
COMMENTSMAXIMUM POOL DEPTH (con	7/511-1000
3.       BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box         □       >4.0 meters (> 13) [30 pts]       □       >1.0 m - 1.5 m (> 2 3" - 4"8") [15 pts]         □       >3.0 m - 4.0 m (> 9 7" - 13) [25 pts]       □       > 1.0 m (< 3 3") [5 pts]	
COMMENTSAVERAGE BANKFULL WIDTH	f (maters)
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looki	ing downstream⊈r
RIPARIAN WIDTH         FLOODPLAIN QUALITY           L         R         (Most Predominant per Bank)         L         R	
Moderate 5-10m Immature Forest, Shrub or Old XI I U	onservation Tillage Irban or Industrial
Field Field T	pen Pasture, Row
	rop fining or Construction
FLOW REGIME (At Time of Evaluation)       (Check ONLY one box):         Stream Flowing       Moist Channel, isolated pools         Subsurface flow with isolated pools (interstitial)       Dry channel, no water (Epher COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel)         (Check ONLY one box):           None         1.0         2.0         1           0,5         1.5         2.5         1	3.0 >3
STREAM GRADIENT ESTIMATE	Severe (10 #/100 #)

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March 2010 And 2011

	es, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
SWWH Name: <u>Flatterett (Flatter</u> ] CWH Name:	
	Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATER	
been in the second seco	
SGS Quadrangle Name: <u>PAYNA, Phys</u> NRCS Soil	
aunty: <u>Tacalding</u> Township/City_	Harrison Inp.
MISCELLANEOUS	·· •
ase Flow Conditions? (Y/N): Date of last precipitation: In Key	Quantify:
hotograph Information:	
evated Turbidity? (Y/N): N Canopy (% open): 120	
ere samples collected for water chemistry? (Y/N): (Note lab sample no. o	or ld. and attach results) Lab Number;
eld Measures: Temp (°C) Dissolved Oxygen (mg/) pH (S.	U.) Conductivity (umhos/cm)
the sampling reach representative of the stream (Y/N) If not, please explain	
	······································
HTLE OUTLATS	J
arformed? (Y/N); (If Yes, Record all observations. Voucher collections of	ptional. NOTE: all voucher samples must be labeled with the
ID number, include appropriate field data sheets from i	
sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/ ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aguatic Macroinver	N)Voucher? (Y/N) tebrates Observed? (Y/N)Voucher? (Y/N)
and the set of the set	
DRAWING AND NARRATIVE DESCRIPTION OF STRE	AM REACH (This <u>must</u> be completed):
Include Important landmarks and other features of interest for site evaluati	. L 13 🕷 13
The second se	Nesotates anamne
	- I and the second s
K 48 69 11	N Y L
and the second se	and a second
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	Ohio Rapid Assessment Method 10 Page Form for Wetland Cate	
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

#### Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <u>http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</u>

Name: 915 Date: Affiliation: > SOCAD Address: Neeri TPhone Number: e-mail address: ism Mhe 6 62.8 Name of Wetland STRIARD Vegetation Communit(ies): inerse w HGM Class(es): Marinstein LOCESTAN Wer Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. Hetroek Creek Lat/Long or UTM Coordinate (Lat. - 1338833.182, Long. - 508368, 622 (0145983) **USGS Quad Name** Parne DhCounty Township Section and Subsection Hydrologic Unit Code Sile Visit National Wetland Inventory Map Ohio Wetland Inventory Map Soil Survey Yes Delineation report/map Yes

## **Background Information**

and the strength county

Wetland NN & PP Coame wetland. Name of Wetland: Wetland Size (acres, hectares): Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. See Deknendson Fische Comments, Narrative Discussion, Justification of Category Changes: None. 5 Category: Final score : 66

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## Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is 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 "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous 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. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, 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 patchwork on the landscape, wetlands divided by artificial boundaries 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 Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 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- induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	V.	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., 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 boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	Lum	

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

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## **Narrative Rating**

General Content (Editor)

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INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <u>http://www.dnr.state.oh.us/dnap</u>. The remaining 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 habitat" is legally defined in the Endangered Species Act 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 3 Headquarters 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 one	
1	Critical Habitat. Is the wetland in a lownship, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an indivídual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Calegory 3 wetland. Go to Question 3	NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea, Lythrum salicaria, or Phragmites australis,</i> or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES ( Wetland is a Category 1 wetland Go to Question 6	NO2 Go to Question 6
6	<b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of Invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES ( Wetfand is a Category 3 wetfand Go to Question 8a	NO Go to Question 8a
	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wet/and is a Category 3 wetland, Go to Question 8b	Go to Question 8b

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-	Mature forested wetlands. Is the welland a forested wetland with	YES	
86	Mature forested weights, is the weights a forested weight with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	~
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	NO
	an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to	YES	NO
	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 90
		Go to Question 10	Į
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
	i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth	Go to Question 9d	Go to Question 10
	wetlands, or those dominated by submersed aquatic vegetation.		
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go lo Questión 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be	Go to Question 10
		evaluated for possible Category 3 status	
		Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	Wetland is a Category 3 wetland.	Go to Question 1
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohlo Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	Go to Question 11	
11	type of wetland and its guality. Relict Wet Prairies. is the wetland a relict wet prairie community	YES	NO >
11	dominated by some or all of the species in Table 1. Extensive prairies	,,	
	were formerly located in the Darby Plains (Madison and Union	Wetland should be	Complete
	Counties), Sandusky Plains (Wyandot, Crawford, and Marion	evaluated for possible	Quantitative Rating
	Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Category 3 status	realing
		Complete Quantitative	
	Montgomery, Van Wert etc.).	Complete domination	

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Invasivelexofic spp Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potomogeton crispus Ramunculus ficaria Rhamnus frangula Typha angusifolia Typha xglauca	Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava . Carex sterilis Carex sterilis Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhaumus aluffolia Rhynchospora capillocea	bog species Calla palustris Carex atlantica var. capillacea Carex achinata Carex chinata Carex trisperma Chamaedaphne calyculata Decodon verticillatus Ertophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Splagnum spp. Vaccinium macrocarpon Vaccinium macrocarpon	Úak Opening spècies Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	wet prairie species Calamogrostis canadensis Calamogrostis canadensis Calamogrostis stricta Carex stherodes Carex buxbaumi. Carex pellita Carex satwellit Gentiana andrewsi Helianthus grosseserratus Liatris spicate Lysimachia quadriflora Lythrum alatum Pycnanthemun virginianun Silphium terebinthinaceum Sorghastrum nutau Spartina pecimate
	Salix, candida Salix, myricoides Salid, serissima Solidago ohioensis Tefieldia glutinosa Triglochin maritimum Triglochin palustre	Vaccinium oxycoccos Woodvardia virginica Xyris difformis		Spirina perina Solidago riddelh

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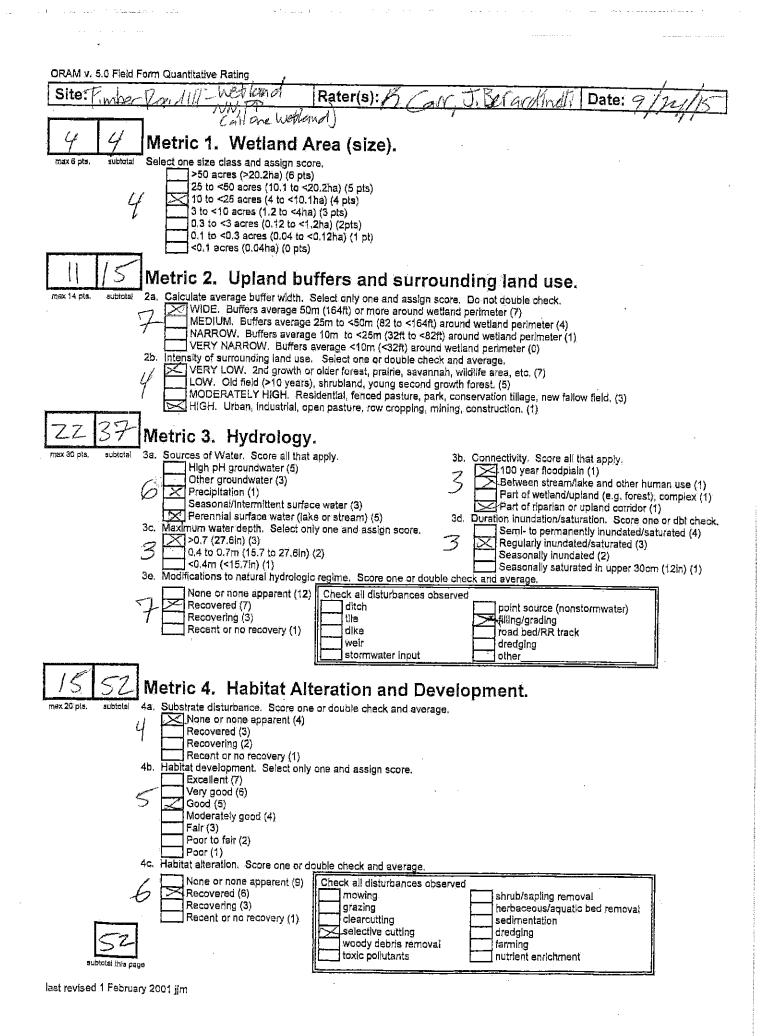
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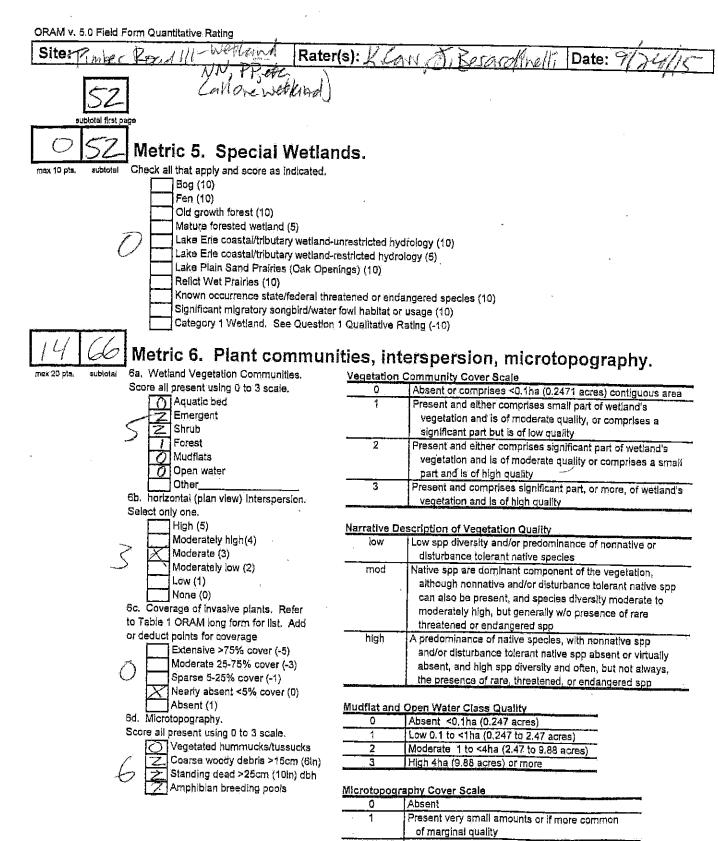
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End of Narrative Rating. Begin Quantitative Rating on next page.

 $[y_{1},y_{2},y_{3}]$ 

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<u>.</u>	of marginal quality
2	Present in moderate amounts, but not of highest
	quality or in small amounts of highest quality
3	Present in moderate or greater amounts
	and of highest quality



Refer to the most recent ORAM Score Calibration Report for the scoring, breakpoints between wetland categories at the following address: http://www.epa.state.oh/Us/dsw/401/401.html last revised 1 February 2001 jjm

# **ORAM Summary Worksheet**

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		circle answer or insert	Result
New Reter	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
Narrative Rating	Question I Critical Habitat	TEO CIU	ir yes, category a.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10, Oak Openings	YES	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	4	
	Metric 2. Buffers and surrounding land use	11	
	Metric 3. Hydrology	22	
	Metric 4. Habitat	15	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	14	
	TOTAL SCORE	14 66	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

## Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 85, 95, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantilative score.
Does the quantilative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the welland to the higher of the two categories or to assign a category based on the results of a nonrapid welland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Calegory 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loc or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons of information for this determination should be provided.

# Final Category Choose one Category 1 Category 2 Category 3

## End of Ohio Rapid Assessment Method for Wetlands.

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Timber Road III		City/Co	ounty: Pauld	ing	Sampling Date: 9/22/15		
Applicant/Owner: EDP Renewabl	es			State: C	Dhio Sampling Point: SP-A	<b>4</b> -1	
Investigator(s): J. Stratigakos, J.E	Jerardinelli	Sectio	n Township	Range: Harrison Tr			
Landform (hillslope, terrace, etc.):	≀iparian Fringe		of (concave, c	Concernation	ave Slope (%)		
		Local Tells			Bit Datum: OH SI	P 83	
Subregion (LRR or MLRA): LRR L		t slope (HtA)	1	_ong:	Datum: Datum:		
Soil Map Unit Name: Hoytville silt					classification: None		
Are climatic / hydrologic conditions							
Are Vegetation, Soil	, or Hydrology	significantly disturt	bed? A	re "Normal Circumsta	ances" present? Yes <u>×</u> No		
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If	f needed, explain any	answers in Remarks.)		
SUMMARY OF FINDINGS -	Attach site map	showing sam	pling poin	t locations, tran	sects, important features,	etc.	
Hydrophytic Vegetation Present?	Yes_X	No	Is the Samp	led Area			
Hydric Soil Present?	Yes X		within a We	tland? Yes	sXNo		
Wetland Hydrology Present?			If ves, option	al Wetland Site ID: <u>1</u>	Netland AA		
Remarks: (Explain alternative pro							
HYDROLOGY							
Wetland Hydrology Indicators:					ry Indicators (minimum of two requi	ired)	
Primary Indicators (minimum of or					ace Soli Cracks (B6)		
Surface Water (A1)		ater-Stained Leave			nage Patterns (B10)		
High Water Table (A2)		quatic Fauna (B13)		Moss Trim Lines (B16) Dry-Season Water Table (C2)			
Saturation (A3)		arl Deposits (B15)	or (C1)		fish Burrows (C8)		
Water Marks (B1)		ydrogen Sulfide Od xidized Rhizosphere			ration Visible on Aerial Imagery (C	9)	
<ul> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> </ul>		resence of Reduced			ted or Stressed Plants (D1)	-,	
Aigal Mat or Crust (B4)		ecent iron Reductio			morphic Position (D2)		
Iron Deposits (B5)		nin Muck Surface (C		· / <u>—</u>	low Aquitard (D3)		
Inundation Visible on Aerial Ir		ther (Explain in Ren			otopographic Relief (D4)		
Sparsely Vegetated Concave	Surface (B8)			× FAC	-Neutral Test (D5)		
Field Observations:							
Surface Water Present? Ye	es No [	Depth (inches):					
	es No_X [						
	es <u>×</u> No [	Depth (inches): <u>Sur</u>	face	Wetland Hydrology	/ Present? Yes X No		
(includes capillary fringe) Describe Recorded Data (stream	gauge monitoring we	l aerial photos pre	vious inspecti	ions), if available:			
Describe recorded Data (Stream	guage, monitoring to	n, uonai priotos, pro	incue inepeet				
Remarks:							

			ant Indicator s? Status	Dominance Test worksheet:
				Number of Dominant Species           That Are OBL, FACW, or FAC:         2         (A)
·				Total Number of Dominant     2       Species Across All Strata:     2
·				Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B)
				Prevalence Index worksheet;
•				Total % Cover of: Multiply by:
	•	= Total		OBL species         x 1 =         0
apling/Shrub Stratum (Plot size:)				FACW species x 2 =0
·,				FAC species x 3 =0
·				FACU species x 4 =0
				UPL species x 5 =0
·  ·				Column Totals: (A) (B)
·				Prevalence Index = B/A =
· · ·				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total		✓ 2 - Dominance Test is >50%
lerb Stratum (Plot size:)			0000	$\_$ 3 - Prevalence Index is $\leq 3.0^{1}$
Phalaris arundinacea	50	x	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
Carex sp.	40	×		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Juncus effusus	10		OBL	
Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Asclepias syriaca	5		UPL	Definitions of Vegetation Strata:
· · · ·				
•				<ul> <li>Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> </ul>
				Sapling/shrub – Woody plants less than 3 in. DBH
l				and greater than or equal to 3.28 ft (1 m) tall.
0				Herb – All herbaceous (non-woody) plants, regardless
1	<u> </u>			of size, and woody plants less than 3.28 ft tall.
2				Woody vines – All woody vines greater than 3.28 ft in
	115	= Total	Cover	height.
Voody Vine Stratum (Plot size:)				
·				
<u>.</u>				
l,				Hydrophytic
				Vegetation
,	0	= Total	Cover	Present? Yes <u>^</u> No
h	U			

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SP-AA-1 Sampling Point: \_

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OIL					Sampling Point:
rofile Descriptio	on: (Describe to th	e depth i	needed to document the indicator or confirm t	he absence	of indicators.)
Depth	Matrix	•	Redox Features		
		%	Color (moist) % Type $Loc^2$	Texture	Remarks
		00		Clay	Moist
				Ciay	
		<u> </u>			
	<u> </u>				
					· ·· · ··
	<u> </u>				
vpe: C=Concer	ntration. D≃Depletic	n. RM=Re	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Locatior	n: PL=Pore Lining, M=Matrix.
ydric Soil Indic		<u></u>			for Problematic Hydric Soils <sup>1</sup> :
-			Polyvalue Below Surface (S8) (LRR R,		Muck (A10) (LRR K, L, MLRA 149B)
_ Histosol (A1)					Prairie Redox (A16) (LRR K, L, R)
_ Histic Epiped			MLRA 149B)		Mucky Peat or Peat (S3) (LRR K, L, F
_ Black Histic (/		_	Thin Dark Surface (S9) (LRR R, MLRA 149B)		
Hydrogen Sul			_ Loamy Mucky Mineral (F1) (LRR K, L)		Surface (S7) (LRR K, L)
Stratified Lay		_	_ Loamy Gleyed Matrix (F2)		alue Below Surface (S8) (LRR K, L)
_ Depleted Belo	ow Dark Surface (A	.11)	_ Depleted Matrix (F3)		)ark Surface (S9) (LRR K, L)
Thick Dark St	urface (A12)		_ Redox Dark Surface (F6)	Iron-M	langanese Masses (F12) (LRR K, L,
Sandy Mucky	y Mineral (S1)	.—	Depleted Dark Surface (F7)	Piedm	iont Floodplain Soils (F19) (MLRA 14
_ Sandy Gleye	d Matrix (S4)		Redox Depressions (F8)	Mesic	Spodic (TA6) (MLRA 144A, 145, 149
Sandy Redox				Red P	arent Material (F21)
Stripped Matr					Shallow Dark Surface (TF12)
·	e (S7) (LRR R, MLR	A 149R)			(Explain in Remarks)
		A 1400)			()
adiantowa of bud	conduction up a station	and wate	nd hydrology must be present, unless disturbed	or problemati	c.
		and wetta	nu nyurology must be present, unless distribed		······································
estrictive Laye	r (if observed):				
Туре:					
Depth (inches)	N- 1.			Hydric Soi	l Present? Yes × No
	<u></u>				
lemarks:					

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

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Project/Site:	City/County: Paulding	Sampling Date: 9/22/15					
Applicant/Owner: EDP Renewables	· · · · · · · · · · · · · · · · ·	tate: Ohio Sampling Point: SP-AA-1					
	Section, Township, Range: Harri						
Landform (hillslope, terrace, etc.): Riparian Fringe	l ocal relief (concave, convex, none);	Concave Slope (%): -					
Subregion (LRR or MLRA): LRR L Lat: 134706		0.6OH SP 83					
Soil Map Unit Name: Hoytville silty clay, 0 to 1 percent slope		NWI classification: None					
Are climatic / hydrologic conditions on the site typical for this time							
		cumstances" present? Yes X No					
Are Vegetation, Soil, or Hydrology signifi							
Are Vegetation, Soil, or Hydrology natura		ain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point locations	, transects, important features, etc.					
Hydrophytic Vegelation Present? Yes X No	Is the Sampled Area						
Hydric Soil Present? Yes X No	within a Wetland?	Yes <u>X</u> No					
Wetland Hydrology Present? Yes X No		e ID: Wetland AA					
HYDROLOGY	<u> </u>						
Wetland Hydrology indicators:		condary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required; check all that a		Surface Soil Cracks (B6)					
	ained Leaves (B9)	Drainage Patterns (B10)					
High Water Table (A2) Aquatic F							
		its (B15) Dry-Season Water Table (C2)					
		Sulfide Odor (C1) Crayfish Burrows (C8)					
	of Reduced Iron (C4)						
		Geomorphic Position (D2)					
	k Surface (C7)	Shallow Aquitard (D3)					
	(plain in Remarks)	Microtopographic Relief (D4)					
Sparsely Vegetated Concave Surface (B8)	<u>×</u>	FAC-Neutral Test (D5)					
Field Observations:		· · · · · · · · · · · · · · · · · · ·					
Surface Water Present? Yes No X Depth (i							
Water Table Present? Yes No X Depth (i		· · · · · · · · · · · · · · · · · · ·					
Saturation Present? Yes X No Depth (i (includes capillary fringe)	nches): Wetland Hyd	rology Present? Yes X No					
Describe Recorded Data (stream gauge, monitoring well, aeria	photos, previous inspections), if availat	le:					
Remarks:		·					
L							

VEGETATION - Use scientific names of plants.

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Sampling Point: SP-AA-1

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Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
			<u> </u>	Number of Dominant Species That Are OBL EACW or EAC $2$ (A)
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3	· <u> </u>	<u> </u>		Species Across All Strata: (B)
4		<u> </u>		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6	·			Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
	•	= Total Cov		OBL species         x1 =
Capling/Chrub Ottotum (Dist size)				FACW species $x = 0$
Sapling/Shrub Stratum (Plot size:)				FAC species X3 =
1			<b>_</b>	FACU species $x4 = 0$
2	·	. <u> </u>		UPL species
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
.6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
11	0			2 - Dominance Test is >50%
		= Total Cov	/er	3 - Prevalence Index is ≤3.0 <sup>1</sup>
Herb Stratum (Plot size:)	50			4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Phalaris arundinacea		X	FACW	data in Remarks or on a separate sheet)
2. Carex sp.	40	<u> </u>	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Juncus effusus	10		OBL	1
4. Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<sub>5.</sub> Asclepias syriaca	5		UPL	
6				Definitions of Vegetation Strata:
				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10	·			Herb - All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines All woody vines greater than 3.28 ft in
	115	= Total Cov	/ēr	height.
Woody Vine Stratum (Plot size:)				
1				
2				
3	·			Hydrophytic Vegetation
4				Present? Yes X No
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

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Sampling Point: \_\_\_\_SP-AA-1

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Depth	cription: (Describe 1 Matrix			x Feature						
(inches)	Color (moist)	%	Color (moist)			Loc <sup>2</sup>		Remarks		
0-12	10YR 3/1	100					Clay	Moist		
			•			<u> </u>				
					·					
					·					
	· <del>· - ··</del>						<u> </u>			
					·	<u> </u>				
								<u></u>		
1				- <u> </u>				Di Dana Linina M. Matrix		
~ .	oncentration, D=Dep Indicators:	etion, RM=	Reduced Matrix, M	S=Maske	a Sand Gra	ains.		PL=Pore Lining, M=Matrix. r Problematic Hydric Soils <sup>3</sup> :		
Histoso			Polyvalue Belo	w Surface	: (S8) ( <b>LR</b> F	R.		ck (A10) (LRR K, L, MLRA 149B)		
	pipedon (A2)	-	MLRA 149B				Coast Prairie Redox (A16) (LRR K, L, F			
—	listic (A3)	-	Thin Dark Surf					cky Peat or Peat (S3) (LRR K, L, R)		
	en Sulfide (A4) d Layers (A5)	-	Loarny Mucky I Loarny Gleyed			, L)		face (S7) (LRR K, L) e Below Surface (S8) (LRR K, L)		
	d Below Dark Surface	e (A11)	Depleted Matri		-)			k Surface (S9) (LRR K, L)		
	ark Surface (A12)		Redox Dark Su	• •	)		iron-Manganese Masses (F12) (LRR K, L,			
-	Mucky Mineral (S1)	-	Depleted Dark				Piedmont Floodplain Soils (F19) (MLRA 1498			
	Gleyed Matrix (S4) Redox (S5)		Redox Depres	SIONS (F8)				oodic (TA6) ( <b>MLRA 144A, 145, 149B)</b> ent Material (F21)		
-	d Matrix (S6)							allow Dark Surface (TF12)		
Dark Si	urface (S7) (LRR R, N	ILRA 149B	)				Other (E)	xplain in Remarks)		
<sup>3</sup> Indicators (	of hydrophytic vegetat	ion and we	tland hydrology mu	et ha nres	ant unlass	e disturbad	or problematic			
	Layer (if observed):		uanu nyurology mu							
Type:	· · · · ·									
Depth (ir	iches):						Hydric Soil P	resent? Yes <u>×</u> No		
Remarks:										

#### WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

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Project/Site: Timber Road III			_ City/County: Pau	lding		Sampling Date: 9/	/22/15
Applicant/Owner: EDP Renew	ables					_ Sampling Point:	
Investigator(s): J. Stratigakos,			_ Section, Township	o. Range: Hai			
Landform (hillslope, terrace, etc		je L	ocal relief (concave	. convex. none	<sub>e)</sub> . Concave	Slope	: (%) <sup>.</sup> -
Subregion (LRR or MLRA): LRI		Lat: 1347062					
Soil Map Unit Name: Hoytville					NWI classific		
Are climatic / hydrologic conditio							
Are Vegetation, Soil				-	-	resent? Yes X	No
Are Vegetation, Soil					In the second second second second second second second second second second second second second second second		
SUMMARY OF FINDING				-		,	tures. etc.
					,	, <b>F</b>	
Hydrophytic Vegetation Preser		×No		npled Area	X say	No	
Hydric Soil Present?	Yes Yes		-				
Wetland Hydrology Present? Remarks: (Explain alternative			_ If yes, option	onal Wetland S	Site ID: Wetland		
HYDROLOGY		· · · · · · · · · · · · · · · · · · ·					
Wetland Hydrology Indicator	rs:	·			Secondary Indica	tors (minimum of tw	vo required)
Primary Indicators (minimum c	of one is required;	check all that apply	0		Surface Soil	Cracks (B6)	
Surface Water (A1)		Water-Staine	d Leaves (B9)	_	Drainage Pat	tterns (B10)	
High Water Table (A2)		Aquatic Faun	a (B13)	-	Moss Trim Li	nes (B16)	
Saturation (A3)		Marl Deposits	s (B15) Dry-Season Water Table (C2)				
Water Marks (B1)			lfide Odor (C1)	-	Crayfish Burr		
Sediment Deposits (B2)			zospheres on Living	Roots (C3)		sible on Aerial Imag	
Drift Deposits (B3)			Reduced Iron (C4) Reduction in Tilled S	oile (C6)	Stunted or Si Stunted or Si Geomorphic	tressed Plants (D1)	
Iron Deposits (B5)		Thin Muck Su			Shallow Aqui		
Inundation Visible on Aeri	al Imagery (B7)	Other (Explai		-		phic Relief (D4)	
Sparsely Vegetated Conc	••••	、 1	,	-	× FAC-Neutral		
Field Observations:							
Surface Water Present?	Yes No _	× Depth (inche	es):				
Water Table Present?		× Depth (inche					
Saturation Present?	Yes X_ No	Depth (inche	es): Surface	Wetland Hy	ydrology Preser	it? Yes X	No
(includes capillary fringe) Describe Recorded Data (strea	am gauge, monito	ring well, aerial pho	otos, previous inspec	tions), if avail	lable:		
Remarks:						-	
TCHIMINS.							

VEGETATION -	Use scientific names	of plants.
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	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	
1				Number of Dominant Species         That Are OBL, FACW, or FAC:         2         (A)
2	- <u></u>			Total Number of Dominant
3	- <u> </u>			Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7	_			Total % Cover of:Multiply by:
	0	= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =0
1				FAC species x 3 =0
		·		FACU species x 4 =0
2				UPL species x 5 =0
3		·		Column Totals:0 (A)0 (B)
4				
5				Prevalence index = B/A =
			<u> </u>	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
	0	= Total Cov	ег	
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0 <sup>1</sup>
<u> Phalaris arundinacea</u>	50	×	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
· · · · · · · · · · · · · · · · · · ·				
2. Carex sp.	40	<u> </u>	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Juncus effusus	10		OBL	1) - it - it - it is all and water of bridge and write
4. Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Asclepias syriaca	5		UPL	
				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub - Woody plants less than 3 in. DBH
				and greater than or equal to 3.28 ft (1 m) tall
9				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines - All woody vines greater than 3.28 ft in
	115	_ = Total Co	<i>i</i> er	height.
···· · · · · · · · · · · · · · · · · ·				
Woody Vine Stratum (Plot size:)				
1				-
2				_
3				Hydrophytic
				Vegetation
4	0			Present? Yes <u>X</u> No
		_ = Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			
· · · · ·				

#### SOIL

Depth	cription: (Describe t Matrix			x Feature		· ·		•
(inches)	Color (moist)	%	Color (moist)	<u>%</u>		Loc <sup>2</sup>	Texture	Remarks
0-12	10YR 3/1	100					Clay	Moist
								<del></del>
						<u> </u>		
		·	<u> </u>				<u></u>	
		<u> </u>				·	<u>-</u>	
			· · · · ·			·	<u></u>	
						·		
						. <u> </u>		
Type: C=C	oncentration, D=Depl	etion. RM=	Reduced Matrix, M	 S=Masked	Sand Gra		<sup>2</sup> Location: PL:	=Pore Lining, M=Matrix.
lydric Soil	Indicators:						Indicators for F	roblematic Hydric Soils <sup>3</sup> :
Histosol Histic E	l (A1) pipedon (A2)		Polyvalue Belo MLRA 149B		(S8) ( <b>LRF</b>	<b>₹</b> R,		(A10) ( <b>LRR K, L, MLRA 149B</b> ) e Redox (A16) ( <b>LRR K, L, R</b> )
Black Hi	istic (A3)		Thin Dark Surfa	ace (S9) (L			5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4) d Layers (A5)		Loamy Mucky I Loamy Gleyed			, L)		e (S7) (LRR K, L) elow Surface (S8) (LRR K, L)
-	d Below Dark Surface	e (A11)	Depleted Matri				Thin Da <b>r</b> k S	urface (S9) (LRR K, L)
	ark Surface (A12) Mucky Mineral (S1)	•	Redox Dark SL Depleted Dark		7)			nese Masses (F12) (L <mark>RR K, L, R)</mark> loodplain Soils (F19) ( <b>MLRA 149</b> 8
	Gleyed Matrix (S4) Redox (S5)		Redox Depress	sions (F8)				ic (TA6) ( <b>MLRA 144A, 145, 149B</b> ) Material (F21)
Stripped	d Matrix (S6)						Very Shallo	w Dark Surface (TF12)
Dark Su	Irface (S7) (LRR R, M	ILRA 149B	)				Other (Expl	ain in Remarks)
	of hydrophytic vegetati Layer (if observed):	ion and we	tland hydrology mu	st be prese	nt, unless	disturbed	or problematic.	
Type:	Layer (il observeu):							
Depth (in	iches):						Hydric Soil Pres	ent? Yes <u>×</u> No
Remarks:							<u> </u>	

#### WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Applicant/Owner:       EDP Renewables       State:       Ohio       Sampling Point:       SP-AA         Investigator(s):       J. Stratgakos, J.Berardinelli       Section, Township, Range:       Harrison Twp         Subregion (LRR or MLRA):       LRL 1347062       Long:       Solarsition:       None:         Subregion (LRR or MLRA):       Lat:       1347062       Long:       Solarsition:       None         Are climatic / hydrologic conditions on the site typical for this time of year?       Yes:       No	Project/Site: Timber Road III	(	City/County: Paulding	_ Sampling Date: 9/22/15
Investigator(s): J. Stratigakos, J.Berardinelli Secton, Township, Range, Harrison Twp Landform (hillstope, terrace, etc.): Riparian Fringe Lat 1347062 Local relief (concave, convex, none): Concave Stope (%): - Subregion (LRR or MLRA): LRR L Lat 1347062 Load relief (concave, convex, none): Concave Stope (%): - Soli Map Unit Name: Hoytville silty clay, D to 1 percent slope (HtA) MVI classification: None Are Vegetation, Soli, or Hydrology significantly disturbed? Are Vegetation, Soli, or Hydrology, significantly disturbed? Are Vegetation, Soli, or Hydrology, significantly disturbed? Are Vegetation, Soli, or Hydrology, significantly disturbed? Are Vegetation Present? Yes X No Is the Sampled Area Hydrophytic Vegetation Present? Yes X No			State: Ohio	
Landrom (hillslope, terrace, etc.): <u>Riparian Fringe</u> Local relief (concave, convex, none): <u>Concave</u> Slope (%): - Subregion (LRR or MLRA). <u>LRR L</u> Lat: <u>1347062</u> Long: <u>5308370.6</u> Datum. <u>OH SF</u> Soil May Unit Name: <u>HoyVtille</u> silty clay, 0 to 1 percent slope (HIA) NWi classification: <u>None</u> Are vegetation		ardinelli		/ 0
Subregion (LRR or MLRA):       LRR L       Lat:       1347062       Long:       5308370.6       Datum:       OH SF         Soil Map Unit Name:       Hoyfville sitly clay, 0 to 1 percent slope (HLA)       NWi classification:       None         Are dimatic / hydrologic conditions on the site typical for this time of year?       Yes       X       No       (If needed, explain in Remarks.)         Are Vegetation				Slope (%); -
Soil Map Unit Name:       Hoytville silty clay, 0 to 1 percent slope (HtA)       NWI classification:       None         Are climatic / hydrologic conditions on the site typical for this time of year? Yes X       No       (If no, explain in Remarks.)         Are VegetationSoil, or Hydrologysignificantly disturbed?       Are 'Normal Circumstances' present? Yes X       No         Are VegetationSoil, or Hydrologynaturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features,         Hydrophytic Vegetation Present?       Yes X       No         Hydrophytic Vegetation Present?       Yes X       No         Hydrophytic Vegetation Present?       Yes X       No         Wetland Hydrology Present?       Yes X       No	Subregion (LRR or MLRA) LRR L	Lat. 1347062	Long: 5308370.6	Datum: OH SP 8
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (ff no, explain in Remarks.)       Are 'Normal Circumstances' present? Yes X No Are 'Normal Circumstances' present? Yes X No Are 'Normal Circumstances' present? Yes X No Are 'Normal Circumstances' present? Yes X No (ff needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, Hydrology Present? Yes X No (ff needed, explain any answers in Remarks.)         Hydrologic resent? Yes X No (ff needed, explain any answers in Remarks.)         Hydrology Present? Yes X No (ff needed, explain any answers in Remarks.)         Wetland Hydrology Indicators:         Primarks: (Explain alternative procedures here or in a separate report.)         HyDROLOGY         Wetland Hydrology Indicators:         Surface Water (A1)         Surface Vater (A1)         Stardace Water (A1)         Stardace Vater (A1)         Hydrolege Infinitum of one is required; check all that apply)         Saturation (A3)         Mart Deposits (B1)         Drainage Patterns (B10)         High Water Table (A2)         Adjustic Fauna (B13)         Mart Deposits (B2)         Oxidized Rizzophates on Living Roots (C3)         Saturation (A3)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Oxidized Rizzophates on Living Roots (C3)	Soil Map Linit Name. Hoytville silty cl	ay, 0 to 1 percent slope (HtA	() NM/ classi	fication: None
Are Vegetation				
Are Vegetation, or Hydrology naturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features,         Hydric Soil Present?       Yes X       No		•	· · · ·	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features,         Hydrophytic Vegetation Present?       Yes       X       No       Is the Sampled Area within a Wetland?       Yes       X       No         Hydric Soil Present?       Yes       X       No       If yes, optional Wetland?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No       If yes, optional Wetland Site ID:       Wetland AA         Remarks:       (Explain alternative procedures here or in a separate report)       Secondary Indicators:       Secondary Indicators (minimum of two requires the sequired; check all that apply)       Surface Soil Cracks (B6)         Surface Water (A1)       Water-Stained Leaves (B9)       Drainage Patterns (B10)       Saturation (A3)       Man Deposits (B15)       Dry-Season Water Table (C2)         Saturation (A3)       Math Deposits (B15)       Dry-Season Water Table (C2)       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Sediment Deposits (B2)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)       Stunted or Stressed Plants (D1)       Adgal Mat or Crust (B4)       Recent ron Reduction in Tilled Soils (C6)       X Geomorphic Position (D2)       Inon Deposits (B5)       Thin Muck Surface (C7)       Shallow Aquitard (D3)       Microtopographic Refer (D4)       Secondary In				
Hydrophytic Vegetation Present?       Yes       X       No       Is the Sampled Area         Hydric Soil Present?       Yes       X       No       If yes, optional Wetland 7       Yes       X       No       If yes, optional Wetland Site ID: Wetland AA         Remarks:       (Explain alternative procedures here or in a separate report)       If yes, optional Wetland Site ID: Wetland AA       If yes, optional Wetland Site ID: Wetland AA         Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required; check all that apply)       Surface Soil Cracks (B6)         Surface Water (A1)       Water-Stained Leaves (B9)       Drainage Patterns (B16)         High Water Table (A2)       Aquatic Fauna (B13)       Moss Trim Lines (B16)         Saturation (A3)       Mat Deposits (B15)       Dry-Season Water Table (C2)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)         Sediment Deposits (B2)       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Ind Deposits (B3)       Presence of Reduced Iron (C4)       Stunct or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent from Reduction in Tilled Soils (C6)       Geomorphe Dostito (D2)         Inon Deposits (B5)       Thin Muck Surface (C7)       Shallow Aquitard (D3)         Inundation Visible on Aerial Imagery (B7)	Are Vegetation, Soil, or	Hydrology naturally pro	blematic? (If needed, explain any answ	vers in Remarks.)
Hydric Soll Present?       Yes       No       within a Wetland?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No       If yes, optional Wetland Site ID: Wetland AA         Remarks:       (Explain alternative procedures here or in a separate report)       If yes, optional Wetland Site ID: Wetland AA         HYDROLOGY       Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required; check all that apply)       Surface Soil Cracks (B6)	SUMMARY OF FINDINGS – A	ttach site map showing	sampling point locations, transect	ts, important features, et
Hydric Soil Present?       Yes       X       No       within a Wetland?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No       If yes, optional Wetland?       Yes       X       No         Remarks:       (Explain alternative procedures here or in a separate report)       If yes, optional Wetland?       Yes       X       No         HYDROLOGY       Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required; check all that apply)       Surface Soil Cracks (86)	Hydrophytic Venetation Present?	Ves X No	Is the Sampled Area	
Wetland Hydrology Present?       Yes       No       If yes, optional Wetland Site ID:       Wetland AA         Remarks:       (Explain alternative procedures here or in a separate report.)       If yes, optional Wetland Site ID:       Wetland AA         HYDROLOGY		Yes × No	within a Wetland? Yes 🗡	No
Remarks: (Explain alternative procedures here or in a separate report.)         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)			If ves, optional Wetland Site ID: Wetla	nd AA
Wetland Hydrology Indicators:       Secondary Indicators (minimum of two required)         Primary Indicators (minimum of one is required); check all that apply)	Remarks: (Explain alternative proced	ures here or in a separate report		
Sparsely Vegetated Concave Surface (B8) X FAC-Neutral Test (D5)          Field Observations:         Surface Water Present?       YesNo _X Depth (inches):         Water Table Present?       YesNo _X Depth (inches):         Saturation Present?       YesNo Depth (inches):         (includes capillary fringe)       Wetland Hydrology Present? Yes _X No	Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained L  Aquatic Fauna (  Aquatic Fauna (  Mari Deposits (f  Hydrogen Sulfid  Oxidized Rhizos  Presence of Rei  Recent Iron Rec  Thin Muck Surfa		vil Cracks (B6) Patterns (B10) Lines (B16) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) quitard (D3)
Surface Water Present?       Yes No _X Depth (inches):         Water Table Present?       Yes No _X Depth (inches):         Saturation Present?       Yes _X No Depth (inches):         (includes capillary fringe)       Wetland Hydrology Present? Yes _X No				
Water Table Present?       Yes       No       Depth (inches):       Wetland Hydrology Present?       Yes       X       No         Saturation Present?       Yes       X       No       Depth (inches):       Surface       Wetland Hydrology Present?       Yes       X       No         (includes capillary fringe)       Ves       X       No       No       No       No				
Saturation Present? Yes X No Depth (inches): Surface Wetland Hydrology Present? Yes X No (includes capillary fringe)				
(includes capillary fringe)				· · · ·
		No Depth (inches)	Wetland Hydrology Pres	ent? Yes <u>^_</u> No
	Describe Recorded Data (stream gau	ge, monitoring well, aerial photo	s, previous inspections), if available:	
	Pomarka			
Demarke	Nemarka.			
Remarks:				
Remarks.				
Remarks.				
Remarks:				
Remarks.				

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	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: $2$ (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Demonst of Deminent Creation
				Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
5				,
6	·			Prevalence Index worksheet:
7	·			Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species x 1 =0
Sapling/Shrub <u>Stratum</u> (Plot size:)				FACW species x 2 =0
1				FAC species x 3 =0
				FACU species x 4 =0
2				UPL species x 5 =0
3		<del></del>	·	Column Totais: (A) (B)
4			·	
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	^	= Total Co	·	✓ 2 - Dominance Test is >50%
		- Total Co	vei	3 - Prevalence Index is ≤3.0 <sup>1</sup>
Herb Stratum (Plot size:)	50		EL OLIV	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Phalaris arundinacea	50	X	FACW	data in Remarks or on a separate sheet)
2 Carex sp.	40	_ X	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Juncus effusus	10		OBL	1
4. Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Asclepias syriaca	5		UPL	· · · · · · · · · · · · · · · · · · ·
				Definitions of Vegetation Strata:
6		·	·	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7	- <u> </u>			at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – Ali herbaceous (non-woody) plants, regardless
				of size, and woody plants less than 3.28 ft tall.
11		·		Woody vines – All woody vines greater than 3.28 ft in
12.	445			height.
	115	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1				
2.				
3				
		- <u> </u>		Hydrophytic Vegetation
4				Present? Yes X No
	0	= Total Co	over	
Remarks: (Include photo numbers here or on a separate	sheet.)			

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Sampling Point: \_\_\_\_\_SP-AA-1

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Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix			c Features	·	<u>&gt;</u>	<b>.</b>	<b>-</b> .
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	_Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-12	10YR 3/1	100					Clay	Moist
							·	
					<u> </u>			
	<u>_</u> _							
··	<u></u>							
							·	
<sup>1</sup> Type: C=C	oncentration, D=Deple	 etion_RM=R	educed Matrix MS		Sand Gra	ains	<sup>2</sup> Location	. PL=Pore Lining, M=Matrix.
Hydric Soil			oudeed many, we	5 Middled	ound on	<b>1</b> 110.		for Problematic Hydric Soils <sup>3</sup> :
Histosol			_ Polyvalue Belov	v.Surface	(S8) (LRE	R		Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149B)			ν 1 <b>η</b>		Prairie Redox (A16) (LRR K, L, R)
· - ·	stic (A3)		_ Thin Dark Surfa		RR R. MI	RA 149B)		Aucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		_ Loamy Mucky M					Surface (S7) (LRR K, L)
	d Layers (A5)		_ Loamy Gleyed I			, -/		alue Below Surface (S8) (LRR K, L)
	d Below Dark Surface	(A11)	_ Depleted Matrix		, ,		-	Park Surface (S9) (LRR K, L)
	ark Surface (A12)	····)	_ Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		_ Depleted Dark \$		7)			ont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		_ Redox Depress		- /			Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)			( )				arent Material (F21)
	Matrix (S6)							Shallow Dark Surface (TF12)
	rface (S7) (LRR R, M	LRA 149B)						(Explain in Remarks)
		,						
<sup>3</sup> Indicators o	f hydrophytic vegetati	on and wetla	and hydrology mus	t be prese	ent, unless	s disturbed	or problematio	с.
	Layer (if observed):							
Туре:								
···			-				Hydric Soil	Present? Yes <u>×</u> No
Depth (in	cnes):		<u> </u>				Tryanc Son	
Remarks:								
Ì								

#### WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

S. S. S. 1

Project/Site: Timber Road III			City/County: Pau	lding		Sampling Date: 9/	22/15
Applicant/Owner: EDP Renew	ables		, ,			Sampling Point:	
Investigator(s): J. Stratigakos,			Section, Township	o. Range: Ha			
Landform (hillslope, terrace, etc.	··	ge Lo	cal relief (concave	convex nor	<sub>ne):</sub> Concave	Slope	(%): -
Subregion (LRR or MLRA):						Datum:	
Soil Map Unit Name: Hoytville							
Are climatic / hydrologic conditio							
		-				-	
Are Vegetation, Soil						resent? Yes <u>×</u>	No
Are Vegetation, Soil	, or Hydrology	naturally pro	oblematic?	(If needed, e	explain any answe	rs in Remarks.)	
SUMMARY OF FINDING	S – Attach si	te map showing	ı sampling poi	int locatio	ons, transects	, important fea	tures, etc.
Hydrophytic Vegetation Preser	nt? Yes	× No	Is the Sam	pled Area			
Hydric Soil Present?	Yes	×No	within a W	/etland?	Yes X	No	
Wetland Hydrology Present?			If yes, optic	onal Wetland	Site ID: Wetland	AA b	
HYDROLOGY					· · · · · · · · · · · · · · · · · · ·		
Wetland Hydrology Indicator					Secondary Indica	tors (minimum of tw	vo required)
Primary Indicators (minimum c		check all that apply)			Surface Soil		<u>o requirea</u>
Surface Water (A1)	<u>·····································</u>	Water-Stained			Drainage Pa	• •	
High Water Table (A2)		Aquatic Fauna			Moss Trim Li		
Saturation (A3)		Marl Deposits (				Water Table (C2)	
Water Marks (B1)		Hydrogen Sulfi	de Odor (C1)		Crayfish Bun	rows (C8)	
Sediment Deposits (B2)			spheres on Living	Roots (C3)		sible on Aerial Imag	jery (C9)
Drift Deposits (B3)			educed Iron (C4)	- 11. (00)		tressed Plants (D1)	
Algal Mat or Crust (B4) Iron Deposits (B5)			eduction in Tilled S	oils (C6)	Ceomorphic Shallow Aqu		
Inundation Visible on Aeri	al Imagery (B7)	Thin Muck Surf				aphic Relief (D4)	
Sparsely Vegetated Conc			in recinding ,		× FAC-Neutral		
Field Observations:							
Surface Water Present?	YesNo_	× Depth (inches	):				
Water Table Present?		X Depth (inches					
Saturation Present?	Yes X No	Depth (inches	): Surface	Wetland H	lydrology Preser	it? Yes <u>X</u>	No
(includes capillary fringe) Describe Recorded Data (stre Remarks:	am gauge, monito	ring well, aerial photo	os, previous inspec	tions), if ava	ilable:		
1							

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VEGETATION Use scientific names of plants.
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· · · · · · · · · · · · · · · · · · ·			_	· · · · · · · · · · · · · · · · · · ·
		Dominant Species?		Dominance Test worksheet:
Tree Stratum (Plot size)				Number of Dominant Species
1		·		That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
				That Are OBL, FACW, or FAC:100 (A/B)
5		·		
6			·	Prevalence Index worksheet:
7			· <u> </u>	Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =0
				FAC species x 3 =0
1			·	FACU species x 4 =0
2				UPL species $x 5 = 0$
3				Column Totals:         0         (A)         0         (B)
4				
5				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
6			·	1 - Rapid Test for Hydrophytic Vegetation
7				$\checkmark$ 2 - Dominance Test is >50%
	0	_ ≂ Total Co	ver	$\_$ 3 - Prevalence Index is $\leq 3.0^{1}$
Herb Stratum (Plot size:)				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Phalaris arundinacea	50	X	FACW	data in Remarks or on a separate sheet)
2. Carex sp.	40	×	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Juncus effusus	10		OBL	
4. Leersia oryzoides	10	_	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Asclepias syriaca	5		UPL	
				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9		_		and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
				of size, and woody plants less than 3.28 ft tall.
11				-
12				Woody vines All woody vines greater than 3.28 ft in height.
	115	_ = Total Co	over	
Woody Vine <u>Stratum</u> (Plot size:)				
1				•
2				-
3				- Hydrophytic
4				Vegetation Present? Yes X No
	0	_ = Total Co	over	
Remarks: (include photo numbers here or on a separat	te sheet.)			_1
	,			
· · ·				

- 1 - 1111 - SFB In the second state for the last second secon

Sampling Point: SP-AA-1

A L. Bass astronomical strangenetic for an environment of the second seco

	rintion: (Describe to the	he denth needed to -	ocument the indicator or	confirm 4-	abconce of !-	Sampling Point:	SP-AA-1
Depth	Matrix		Redox Features		e ausence of I	iurcators.)	
(inches)		% Color (mois		Loc <sup>2</sup>	Texture	Remarks	
0-12		100			Clay	Moist	
<sup>1</sup> Type: C=C Hyd <b>ric Soil</b>		on, RM≍Reduced Matr	ix, MS=Masked Sand Grain			=Pore Lining, M=Mat Problematic Hydric \$	
Black Hi Hydroge	(A1) bipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5)	MLRA 1 Thin Dark Loamy Mu	Surface (S9) (LRR R, MLR icky Mineral (F1) (LRR K, L	A 149B)	Coast Prair 5 cm Muck Dark Surfa	(A10) (LRR K, L, ML ie Redox (A16) (LRR y Peat or Peat (S3) (I ce (S7) (LRR K, L) Below Surface (S8) (L	: K, L, R) _RR K, L, R)
Depleter           ×         Thick Date           _         Sandy M	d Below Dark Surface (A ark Surface (A12) /lucky Mineral (S1)	11) Depleted I Redox Da Depleted I	rk Surface (F6) Dark Surface (F7)		Thin Dark \$ Iron-Manga Piedmont F	Surface (S9) ( <b>LRR K,</b> Inese Masses (F12) ( Floodplain Soils (F19)	L) [LRR K, L, R) (MLRA 1498
Sandy F Stripped	Gleyed Ma <b>t</b> rix (S4) Redox (S5) I Matrix (S6) rface (S7) ( <b>LRR R, MLR</b>		pressions (F8)	- - -	Red Paren Very Shallo	dic (TA6) ( <b>MLRA 144,</b> t Material (F21) ow Dark Surface (TF1 lain in Remarks)	
	f hydrophytic vegetation Layer (if observed):	and wetland hydrology	/ must be present, unless d	listurbed or	problematic.		
Type: Depth (in				ŀ	lydric Soil Pre	sent? Yes <u>×</u>	No
Remarks:	·	<u> </u>			-		
						·	

#### WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

(4) Structure (March 1) Solutions (Solution Construction Constru Construction Co

Project/Site: Timber Road III	City/County: Paulding		Sampling Date: 9/22/15
Applicant/Owner: EDP Renewables			Sampling Point: SP-AA-1
Investigator(s): J. Stratigakos, J.Berardinelli	Section, Township, Range:		
Landform (hillsiope, terrace, etc.): Riparian Fringe	Local relief (concave, convex, r		Slope (%):
Subregion (LRR or MLRA): LRR L			OH SP 83
Soil Map Unit Name: Hoytville silty clay, 0 to 1 per			cation: None
Are climatic / hydrologic conditions on the site typical			
Are Vegetation, Soil, or Hydrology		nal Circumstances" p	present? Yes <u>×</u> No
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed	l, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site r	nap showing sampling point locat	ions, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes X	within a Wotland?		Νο
Hydric Soil Present? Yes X			
Wetland Hydrology Present? Yes X Remarks: (Explain alternative procedures here or in	No If yes, optional Wetla	nd Site ID: Weuali	
HYDROLOGY			
Wetland Hydrology Indicators:	-1 - 0 46 - 4 1 - 2		ators (minimum of two required)
Primary Indicators (minimum of one is required; che		Surface Soil	
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa Moss Trim I	
	_ Aquatic Fauna (B13) _ Marl Deposits (B15)	Moss Trim L	Water Table (C2)
	_ Hydrogen Sulfide Odor (C1)	Crayfish Bur	
	Oxidized Rhizospheres on Living Roots (C3		isible on Aerial Imagery (C9)
Drift Deposits (B3)	_ Presence of Reduced Iron (C4)		Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	🗶 Geomorphic	Position (D2)
Iron Deposits (B5)	_ Thin Muck Surface (C7)	Shallow Aqu	
	Other (Explain in Remarks)	Microtopogra	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8) Field Observations:			riest (Do)
Surface Water Present? Yes No _X	Depth (inches):		
Water Table Present? Yes No _X			
		d Hydrology Prese	nt? Yes <u>×</u> No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	well parial photos, provinus ipspactions) if (	wailable:	
Describe Recorded Data (stream gauge, monitoring	well, aerial protos, previous inspections), ir a		
Remarks:			
1			

**VEGETATION** – Use scientific names of plants.

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				· · · · · · · · · · · · · · · · · · ·
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
				Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Demission
				Total Number of Dominant Species Across All Strata:(B)
3				
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6	<u> </u>			Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Cov	/er	OBL species x 1 =0
				FACW species $x 2 = 0$
Sapling/Shrub Stratum (Plot size:)				
1		·		
2				FACU species x 4 =0
				UPL species x 5 =0
3	·			Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
1	^			2 - Dominance Test is >50%
		= Total Co	ver	$3 - \text{Prevalence Index is } \le 3.0^{1}$
Herb Stratum (Plot size:)				
Phalaris arundinacea	50	×	FACW	<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
2. Carex sp.	40		FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		<u> </u>		
3. Juncus effusus	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Leersia oryzoides	10		OBL	be present, unless disturbed or problematic.
5. Asclepias syriaca	5		UPL	Definitions of Vegetation Strata:
6				-
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in, DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
				of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines – All woody vines greater than 3.28 ft in
	115	= Total Co	ver	height.
		10101-00	*01	
Woody Vine Stratum (Plot size:)				
1				
2				
3	• • • • • • • • • • • • • • • • • • • •		<del></del>	Hydrophytic
4				Vegetation Present? Yes X No
	0	= Total Co	vor	Present? Yes X No
Remarks: (Include photo numbers here or on a separate	abaat )	- 10101-00		
Remarks: (include photo numbers here of on a separate	sneet.)			

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Sampling Point: \_\_\_\_\_

1 \_ ... (2.)

46-46 117 1	Matrix		Redox Features	the absence of in	
)epth пches)	Color (moist)	%	Color (moist)%Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
<b>0-</b> 12	10YR 3/1	100		Clay	Moist
				,	
	···-				÷
				<u> </u>	
_					
<u> </u>			<u></u>		
	apportation D-Dap		Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL:	=Pore Lining, M=Matrix.
<u> </u>	Indicators:	elion, Rivi~	Reduced Mainx, MS-Masked Sand Grams.		Problematic Hydric Soils <sup>3</sup> :
-			Polyvalue Below Surface (S8) (LRR R,		(A10) (LRR K, L, MLRA 149B)
_ Histoso	pipedon (A2)	-	MLRA 149B)		ie Redox (A16) (LRR K, L, R)
	listic (A3)		Thin Dark Surface (S9) (LRR R, MLRA 149B)		y Peat or Peat (S3) (LRR K, L, F
	en Sulfide (A4)	-	Loamy Mucky Mineral (F1) (LRR K, L)		ce (S7) (LRR K, L)
	d Layers (A5)	-	Loamy Gleyed Matrix (F2)		Below Surface (S8) (LRR K, L)
	d Below Dark Surface	e (A11)	Depleted Matrix (F3)		Surface (S9) (LRR K, L)
	ark Surface (A12)	. , .	Redox Dark Surface (F6)	Iron-Manga	anese Masses (F12) ( <b>LRR K, L,</b> I
	Mucky Mineral (S1)		Depleted Dark Surface (F7)	Piedmont F	loodplain Soils (F19) ( <b>MLRA 14</b>
_ Sandy (	Gleyed Matrix (S4)		Redox Depressions (F8)	Mesic Spoo	dic (TA6) ( <b>MLRA 144A, 145, 149</b>
Sandy /	Redox (S5)				t Material (F21)
					w Dark Surface (TF12)
	d Matrix (S6)		)	Other (Expl	lain in Remarks)
_ Stripper	d Matrix (S6) urface (S7) (LRR R, N	//LRA 1498	•		
_ Stripper	urface (S7) (LRR R, N				
Stripper Dark Su	urface (S7) (LRR R, N	tion and we	tland hydrology must be present, unless disturbed	or problematic.	
Stripper	urface (S7) (LRR R, N	tion and we		or problematic.	
Stripper Dark Su	urface (S7) (LRR R, N	tion and we			
Stripper Dark Su ndicators o estrictive Type:	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No
Stripped Dark Su ndicators o lestrictive Type: Depth (ir	urface (S7) (LRR R, N	tion and we			sent? Yes <u>×</u> No
Stripped Dark Su ndicators o lestrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes X No
Stripped Dark Su ndicators o lestrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No
Stripped Dark Su ndicators o estrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No <u> </u>
Stripped Dark Su ndicators o estrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No
Stripped Dark Su ndicators o estrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No <u> </u>
Stripped Dark Su ndicators o estrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No <u> </u>
Stripped Dark Su ndicators o estrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No <u></u>
Stripped Dark Su ndicators o estrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No <u></u>
Stripped Dark Su ndicators o lestrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No <u></u>
Stripper Dark Su ndicators o <b>Restrictive</b> Type:	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No
Stripped Dark Su ndicators o lestrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No
Stripped Dark Su ndicators o lestrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No <u></u>
Stripped Dark Su ndicators o lestrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes X No
Stripped Dark Su ndicators o lestrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No
Stripped Dark Su ndicators o estrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No
Stripped Dark Su ndicators o estrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No
_ Stripped _ Dark Su ndicators o estrictive Type: Depth (ir	urface (S7) (LRR R, N of hydrophytic vegeta Layer (if observed):	tion and we			sent? Yes <u>×</u> No

3	CATIONSITE NUMBER	RIVER BASI	IN Merchinee F		$EA (m^2) \leq 1.05\%$
	REAM REACH (#) _2000_LAT	- <u>41.02.50</u> LONG	, <u>XX, YZZ</u> RIVER	CODE RIV	ER MILE
NOTE: Com	plete All Items On This Form - I	lefer to "Field Evalu	uation Manual for Oh	io's PHWH Streams	an anna an charlean an Alberte
(Max or TYPE DD BL DD BE DD CO CO CO CO CO CO CO CO	RATE (Estimate percent of every h)         40). Add total number of significant s         PERC         DR SLABS [16 pts]         ULDER (>256 mm) [16 pts]         DROCK [16 pt]         BBLE (65-255 mm) [12 pts]         AVEL (2.64 mm) [9 pts]         ND (<2 mm) [6 pts]	substrate types found (N           Image: Second Condition           Image: Second Condition	nt. Check ONLY (wo prev Max of 8). Final metric sco SILT [3 pt] LEAF PACKWOODY DE FINE DETRITUS [3 pts] CLAY & HARDPAN [0 p MUCK [0 pts] ARTIFICIAL [3 pts]	re is sum of boxes A & PERC BRIS [3 pts] 4/1	B. HHEI Metric
Bidr Si CORE OF TW Maxim evalua	Total of Percentages of abs, Boulder, Cobble, Bedrock O MOST PREDOMINATE SUBSTRA um Pool Depth (Measure the maxim tion, Avoid plunge pools from road cu	num pool depth within	the 61 meter (200 ft) ev bes) (Check ONLY one	F SUBSTRATE TYPE aluation reach at the tir box):	
□ > 22.5 ⊠ > 10 - :	nimelers [20 pts] - 30 cm (30 pts) 22.5 cm [25 pts] ENTS		> 5 cm + 10 cm [15 pts] < 5 cm [5 pts] NO WATER OR MOIST MAXIMUM POOI	CHANNEL [0 pts]	
☐ >4.0m 2 →3.0m 1 >1.5m	FULL WIDTH (Measured as the ave eters (> 13) [30 pts] - 4.0 m (> 9'7' = 13') [25 pts] - 3.0 m (> 4'8' - 9'7') [20 pts] IENTS		≥ 1.0 m - 1.5 m (> 3" 3" ≤ 1.0 m (≤ 3" 3") [5 pts]	et 이가트 성급하지 	Bankfull Width Max=30 25
			üst also be completed		
0 0 0 0 0 0 0	(Per Bank) Wide >10m Moderate 5-10m Narrow <5m	IN QUALITY ☆NO FLOODPLAIN QUALIT L R (Most Predon D D Mature Fores Field	TE: River Left (L) and Rig <u>Y</u> ninant per Bank) t, Welland rest, Shrub or Old Park, New Field	L R Conservat	ion Tillage Industrial
·	FLOW REGIME (At Time of Evaluat Stream Flowing Subsurface flow with isolated pools (		Moist Channel,	isolated pools, no flow water (Ephemeral)	(Intermittent)
a M	COMMENTS				

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June 20, 2008 Revision

Completed QHEI Form)  Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream REA. CLEARLY MARK THE SITE LOCATION  IP:NRCS Soil Map Stream Order Quantity: Quantity: fattach results) Lab Number; Conductivity (umhos/cm)	
Distance from Evaluated Stream Distance from Evaluated Stream REA: CLEARLY MARK THE SITE LOCATION De: NRCS Soil Map Stream Order WARK THE SITE LOCATION De: NRCS Soil Map Stream Order WARK THE SITE LOCATION Dec NRCS Soil Map Stream Order Quantity: Quantity: f attach results) Lab Number; Conductivity (jumhos/cm)	· · · · · · · · · · · · · · · · · · ·
REA. CLEARLY MARK THE SITE LOCATION  UP: NRCS Soil Map Stream Order  CONSERVITE THE SITE LOCATION  UP: Quantity: I  attach results) Lab Number; Conductivity (umhos/cm)	· ·
Quantity:	
{     Quantity:      attach results) Lab Number;      Conductivity (umhos/cm)	
i attach results) Lab Number; Conductivity (µmhos/cm)	·
i attach results) Lab Number; Conductivity (µmhos/cm)	·
Conductivity (µmhos/cm)	
tOTE: all voucher samples must be labeled with the site. ry Headwater Habitat Assessment Manual)	
Observed? (Y/N) Voucher? (Y/N)	
	<b>-</b> .
	Mosfin atts Instration
x x www.	e riall
Eleans x	<b>%</b> ,2
	ary Headwater Habitat Assessment Manual) Voucher? (Y/N) Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) EACH (This <u>must</u> be completed):

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June 20, 2008 Revision

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PHWH Form Page - 2

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

(2) Summary Control of the second se

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Project/Site: Timber Road III			_ City/County: Pauld	ing	_ Sampling Date: <u>9/22/15</u>	
Applicant/Owner: EDP Renewables					Sampling Point: SP-AA-1	
Investigator(s): J. Stratigakos			Section, Township,	Range: Harrison Twp	• • • • • • • • • • • • • • • • •	
Landform (hillslope, terrace, et					Slope (%); -	
Subregion (LRR or MLRA): LF					OH SP 83	
Soil Map Unit Name: Hoytville		1 percent slope (H	tA)	NIA/I classifi	Datum,	
Are climatic / hydrologic condit						
Are Vegetation, Soil					present? Yes X No	
Are Vegetation, Soil				needed, explain any answe	,	
SUMMARY OF FINDING	S – Attach s	ite map showin	g sampling poin	t locations, transects	s, important features, etc.	
Hydrophytic Vegetation Prese	ent? Yes	× <sub>No</sub>	is the Samp	ed Area		
Hydric Soil Present?	Yes			land? Yes X	No	
Wetland Hydrology Present?	Yes			al Wetland Site ID: Wetlan	AA b	
HYDROLOGY						
Wetland Hydrology Indicate		k obook all that apply	<b>\</b>		ators (minimum of two required)	
Primary Indicators (minimum	or one is required			Surface Soil		
Surface Water (A1)		Aquatic Fauna	d Leaves (B9) a (B13)		Patterns (B10) n Lines (B16)	
Saturation (A3)		Marl Deposits			Water Table (C2)	
Water Marks (B1)			fide Odor (C1)	Crayfish Bu		
Sediment Deposits (B2)			ospheres on Living Re		isible on Aerial Imagery (C9)	
Drift Deposits (B3)		Presence of F	Reduced Iron (C4)		Stressed Plants (D1)	
Algal Mat or Crust (B4)		Recent Iron R	eduction in Tilled Soil	s (C6) X Geomorphic	Position (D2)	
Iron Deposits (B5)		Thin Muck Su	· ·	Shallow Aqu		
Inundation Visible on Aer		Other (Explain	n in Remarks)		aphic Relief (D4)	
Sparsely Vegetated Con Field Observations:	ave Suπace (B8,			× FAC-Neutra	Test (D5)	
Surface Water Present?	Yes No	Depth (inche	.e)-			
Water Table Present?		Depth (inche				
Saturation Present?		Depth (inche		Wetland Hydrology Prese	nt? Yes × No	
(includes capillary fringe) Describe Recorded Data (stre						
	an gauge, monit	oring weit, aenai pho	tos, previous inspectio	ons), ir availadie:		
Remarks:						

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#### **VEGETATION** – Use scientific names of plants.

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	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum         (Plot size:)           1)		<u>Species?</u>	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4	·			Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B)
5	- <u> </u>		·	
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Co	ver	OBL species x1 =
Sapling/Shrub Stratum (Plot size:)				FACW species $2 = 0$
				FAC species x 3 =0
1			·	FACU species x 4 =
2				UPL species $x = 0$
3				Column Totals: (A) (B)
4				
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7	0			2 - Dominance Test is >50%
		= Total Co	ver	 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Herb Stratum (Plot size:) Phalaris arundinacea	50	×	FACW	<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
2. Carex sp.	40	<u> </u>	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
lunaur offusio	10		OBL	
J				<sup>t</sup> Indicators of hydric soil and wetland hydrology must
4. Leersia oryzoides	10	·	OBL	be present, unless disturbed or problematic.
5. Asclepias syriaca	5	· _ · ·		Definitions of Vegetation Strata:
6				Tree Mester starte 2 in (7.6 cm) or more in diameter
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				
				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines – All woody vines greater than 3.28 ft in height.
	115	= Total Co	over	
Woody Vine Stratum (Plot size:)				
1				
		_	_	
2				
3			_	- Hydrophytic Vegetation
4				Present? Yes <u>X</u> No
	0	_ = Total Co	over	
Remarks: (Include photo numbers here or on a separate	sheet.)			
		•		

Sampling Point: SP-AA-1

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Sampling Point: \_\_\_\_\_

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Depth	inpuoni (Desende i		th needed to docum				the absence	or manouto.	,	
(inches)	Matrix Color (moist)	%	Color (moist)	<u>x Features</u> %	; Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
<u>0-12</u>	10YR 3/1	100					Clay		Moist	
				· <u> </u>						
						•				
					<u> </u>					
				·						<u>.</u>
	<u> </u>			·	<del>_</del>					
			<u>_</u>	<u> </u>						
			<u> </u>	·						
				· <u> </u>						
		······								
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion RM	=Reduced Matrix M	S=Masked	Sand Gr		<sup>2</sup> l ocation	PI =Pore I	_ining, M=Matr	<b>x</b> .
Hydric Soil			-rieduced matrix, me	j-maakeu		1113.			natic Hydric S	
Histosol			Polyvalue Below	w Surface	(S8) (LRF	₹R,	2 cm M	luck (A10) (	LRR K, L, MLI	RA 149B)
	pipedon (A2)		MLRA 149B)						ox (A16) ( <b>LRR</b>	
	stic (A3)		Thin Dark Surfa					-	or Peat (S3) (L	RR K, L, R)
	en Sulfide (A4) d Layers (A5)		Loamy Mucky M Loamy Gleyed			, L)		urface (S7) lue Below S	(LRR K, L) Jurface (S8) (LI	RKI)
	d Below Dark Surface	e (A11)	Depleted Matrix		,		-		(S9) (LRR K, I	
· ·	ark Surface (A12)	· · /	Redox Dark Su	rface (F6)					lasses (F12) (L	
	lucky Mineral (S1)		Depleted Dark		7)				in Soils (F19)	
	Gleyed Matrix (S4)		Redox Depress	ions (F8)					6) (MLRA 144A	, 145, 149B)
1 -	Redox (S5) I Matrix (S6)							arent Materia ballow Dark	al (F21) Surface (TF12	21
	rface (S7) (LRR R, N	ILRA 149	B)					Explain in F		-)
			,					•	,	
	f hydrophytic vegetal		etland hydrology mus	st be prese	ent, unless	s disturbed o	or problematio			
Restrictive	Layer (if observed):									
Туре:										
Type: Depth (in	 ches):						Hydric Soil	Present?	Yes <u>×</u>	No
	ches):		 				Hydric Soil	Present?	Yes <u>x</u>	No
Depth (in	ches)						Hydric Soil	Present?	Yes <u>x</u>	No
Depth (in	ches)						Hydric Soil	Present?	Yes <u>×</u>	No
Depth (in	ches)						Hydric Soil	Present?	Yes X	No
Depth (in	ches).		 				Hydric Soil	Present?	Yes X	No
Depth (in	ches)						Hydric Soil	Present?	Yes X	No
Depth (in	ches)						Hydric Soil	Present?	Yes ×	No
Depth (in	ches)						Hydric Soil	Present?	Yes X	No
Depth (in	ches)						Hydric Soil	Present?	Yes X	No
Depth (in	ches)						Hydric Soil	Present?	Yes X	No
Depth (in	ches).						Hydric Soil	Present?	Yes ×	No
Depth (in	ches)							Present?	Yes X	No
Depth (in	ches).							Present?	Yes X	No
Depth (in	ches).							Present?	Yes X	No
Depth (in	ches).							Present?	Yes ×	No

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#### WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

(a) <u>Association</u> (associated as a second structure of the state of

Project/Site: Timber Road III	City/County: Paul	ding	Sampling Date: 9/22/15
Applicant/Owner: EDP Renewables			Sampling Point: SP-AA-1
Investigator(s): J. Stratigakos, J.Berardinelli	Contian Township	, Range: Harrison Twp	outputg : onthe
Landform (hillslope, terrace, etc.): Riparian Fringe	Section, rowinship	Concave	
Landform (hillslope, terrace, etc.):	Local reliet (concave,	5309370.6	Slope (%):
Subregion (LRR or MLRA): LRR L Lat: 134706		Long:	OH SP 83
Soil Map Unit Name: <u>Hoytville silty clay, 0 to 1 percent slop</u>	e (HtA)		ation: <u>None</u>
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes 🔀 1	No (If no, explain in F	temarks.)
Are Vegetation, Soil, or Hydrology signifi	icantly disturbed?	Are "Normal Circumstances"	present? Yes <u>×</u> No
Are Vegetation, Soil, or Hydrology natura		(If needed, explain any answe	
SUMMARY OF FINDINGS – Attach site map sho	wing sampling poi	nt locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sam	pled Area	
Hydric Soil Present? Yes X No	within a W	etland? Yes X	No
Wetland Hydrology Present? Yes X No	If yes, ontir	onal Wetland Site ID: Wetlan	d AA
Remarks: (Explain alternative procedures here or in a separate			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that a	(vlage	Surface Soil	
	tained Leaves (B9)	Drainage Pa	
	Fauna (B13)	Moss Trim L	
	posits (B15)		Water Table (C2)
	n Sulfide Odor (C1)	Crayfish Bui	
	Rhizospheres on Living	Roots (C3) Saturation V	isible on Aerial Imagery (C9)
Drift Deposits (B3) Presence	e of Reduced Iron (C4)		stressed Plants (D1)
Algal Mat or Crust (B4) Recent I	ron Reduction in Tilled S		
	ck Surface (C7)	Shallow Aqu	
	xplain in Remarks)		aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		× FAC-Neutra	l lest (D5)
Field Observations:	· · ·		
Surface Water Present? Yes No X Depth (			
Water Table Present?     Yes No Depth (       Saturation Present?     Yes X		Mathematikudan la av Dreen	nta Van X Na
Saturation Present? Yes X No Depth ( (includes capillary fringe)	(ncnes): <u>ournace</u>	Wetland Hydrology Prese	nt? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aeria	al photos, previous inspec	tions), if available:	
Pomorko:			
Remarks:			

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VEGETATION -	Use scientific names	of plants.
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Tree Stratum (Plot size:)	Absolute % Cover	Dominan Species?	t Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7			. <u></u>	Total % Cover of:Multiply by:
	0	= Total Co	ver	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =0
1				FAC species x 3 =0
2				FACU species x 4 =0
				UPL species x 5 =
3				Column Totals: (A) (B)
f				Prevalence Index = B/A =
5				
)				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Co	ver	2 - Dominance Test is >50%
Herb Ştratum (Plot size:)				3 - Prevalence Index is ≤3.0 <sup>1</sup>
Phalaris arundinacea	50	×	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2. Carex sp.	40	×	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Juncus effusus	10		OBL	
Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Asclepias syriaca	5		UPL	Definitions of Vegetation Strata:
3				
				<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height
3				
)				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
I1				
2				Woody vines – All woody vines greater than 3.28 ft in height.
		= Total Co	ver	
Noody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation
		= Total Co		Present? Yes X No
Remarks: (Include photo numbers here or on a separate				
·····				· · · · · · · · · · · · · · · · · · ·

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Sampling Point: \_ SP-AA-1

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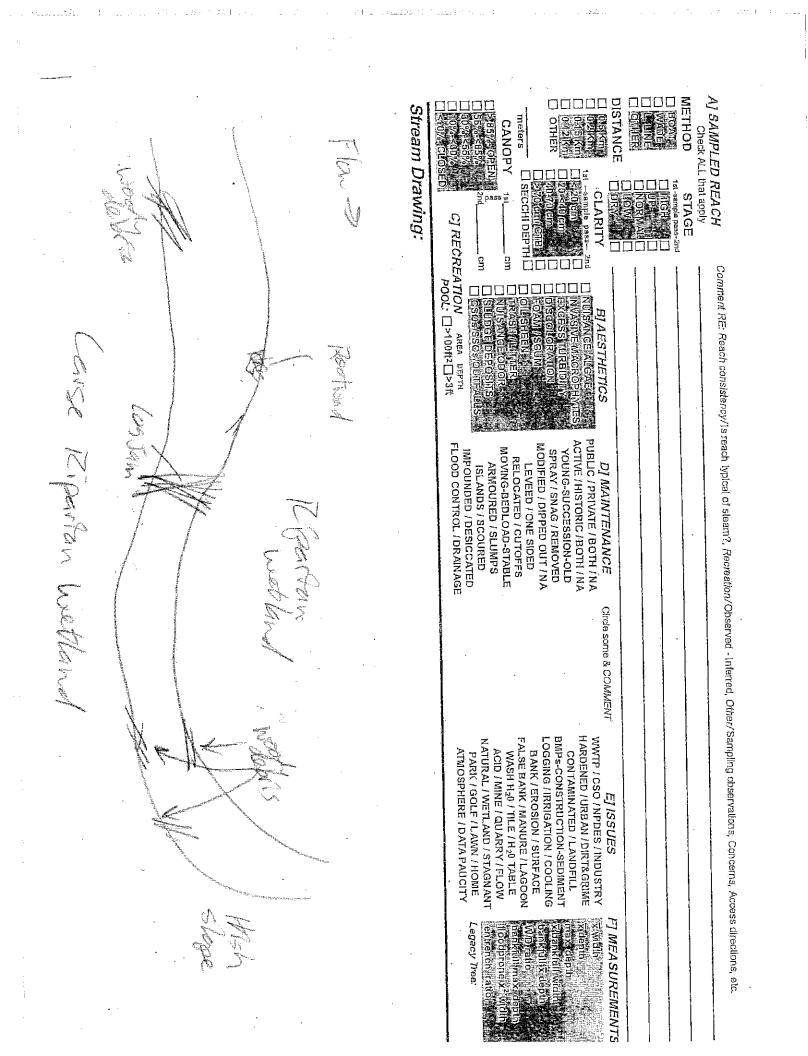
والمراجعة والمتعاصية ويعتقدون والقارب

Profile Desc	cription: (Describe t	to the dept	h needed to docum	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	<u>Matrix</u> Color (moist)		Redo: Color (moist)	<u>x Feature:</u> %	s Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
<u>0-12</u>	10YR 3/1	100		70	_туре		Clay	Moist
				·				
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	oncentration, D=Depl		Doduced Matrix M	- Maakaa			2	PL=Pore Lining, M=Matnx.
Hydric Soil		ellon, Rivi=	Reduced Matrix, Ma	S=IVIASKEC	1 Sano Gia	airis.		for Problematic Hydric Soils <sup>3</sup> :
Histosol		_	Polyvalue Belov	w Surface	(S8) (LRF	R,		fuck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149B)					Prairie Redox (A16) (LRR K, L, R)
	istic (A3) en Sulfide (A4)	-	Thin Dark Surfa Loamy Mucky M					Aucky Peat or Peat (S3) (LRR K, L, R) aurface (S7) (LRR K, L)
	d Layers (A5)	۲	Loamy Gleyed I			, L)		lue Below Surface (S8) (LRR K, L)
	d Below Dark Surface	e (A11)	Depleted Matrix		,		Thin D	ark Surface (S9) (LRR K, L)
	ark Surface (A12)	-	Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	Aucky Mineral (S1) Gleyed Matrix (S4)	-	Depleted Dark Redox Depress		-7)			ont Floodplain Soils (F19) ( <b>MLRA 149B</b> ) Spodic (TA6) ( <b>MLRA 144A, 145, 149B</b> )
	Redox (S5)			10110 (1 0)				arent Material (F21)
Stripped	Matrix (S6)						Very S	hallow Dark Surface (TF12)
Dark Su	uface (S7) (LRR R, N	ILRA 149B	)				Other	(Explain in Remarks)
<sup>3</sup> Indicators c	f hydrophytic vegetat	ion and we	land hydrology mus	st be prese	ent, unless	disturbed	or problematio	<b>.</b>
Restrictive	Layer (if observed):							· · · ·
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yes <u>×</u> No
Remarks:								
a								

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	<b>ChieEPA</b>		abitat Evaluation Inde essment Field Sheet		e: (50)
	Stream & Location:	Stream QQ_	PMV Vorl (rell orers Full Name & Affiliation	RM: Date	<u>67124115</u>
	River Code:	STORET #:	Lat./ Long.:	/8	Office verified location
					(2) ATE (-1) (10
:	quality; 3-Highest quality in diameter log that is stable; UNDERCUTBANKS OVERHANGING VEC SHALLOWS(IN SEC 7 ROOTMATS [1] Comments	WATER	SHI] O AQUATIG MACROPH [I] Z LOGS OR WOODYD	er, large Check ONE ( al pools. EXTENSIV TERS [1] MODERAT YTES [1] SPARSES	E 25-75% [7]
	SINUOSITY DEVI HIGH (4) DEVI MODERATE(3) DE LOW (2) (1) DEVI	OLOGY Check ONE in each catego         ELOPMENT       CHANNELI         GEULENTER       NONEIGI         DODIGI       RECOVERED         NR[8]       NR[8]         NR[9]       RECOVERING         DOR [1]       RECENTIOR	ZATION STABILITY		Channel Maximum 20
	4] BANK EROSION A River right looking downstrear EROSION NONE7.LITTLE[3] MODERATE[2] HEAVY / SEVERE[1] Comments	RIPARIAN WIDTH           □         MUDE> 50m [4]           □         MODERATE 10-50m [3]           □         MODERATE 10-50m [3]           □         MARROW 510m [2]           □         NARROW 510m [2]           □         NARROW 510m [2]	NE in each category for EACH BANK ( FLOOD PLAIN QUAI D FOREST SWAMP [3] SHRUB OR OLD FIELD [2] RESIDENTIAL PARK, NEW FIEL FENGED PASTURE [1] OPEN PASTURE, ROWCROP IN (5)		DUSTRIAL [0] STRUCTION [0]
·	MAXIMUM DEPTH Check ONE (ONLYI)	D RIFFLE / RUN QUALITY CHANNEL WIDTH Check ONE (Or 2 & average) □ POOLWDTHS RIFFLE WIDTH I D POOLWDTHS RIFFLE WIDTH I □ POOLWDTHS RIFFLE WIDTH I	1] 🗌 VERY FAST [1] 🖄 🗋 INTERS	Primar I Seconda (cfrcle one and [1]	Potential <i>v Contact</i> <i>try Contact</i> <i>comment</i> on back) <i>Pool /</i> <i>Current</i> <i>Maximum</i> 12
	Indicate for funct of riffle-obligate s RIFFLE DEPTH BESTAREAS 10cm [2] BESTAREAS 10cm [1] BESTAREAS 5cm 2 Imetric=0 Comments	pecies: Check RUN DEPTH RIF	st be large enough to suppor ONE (Or 2 & average). FLE / RUN SUBSTRATE RI BLE (e.g., Cobole, Boulder) [2] STABLE (e.g., Ene Gravel, Sand) [0] TABLE (e.g., Fine Gravel, Sand) [0]	t a population	RIFFLE [metric=0] EDNESS Riffle /
	6] GRADIENT ( 3. / DRAINAGE AREA	ff/mi) □ VERYLOW LOW [2-4 /☑ MODERATE(15:10] mi2) □ HIGHSVERYHIGH [10		)%GLIDE:	Gradient Maximum 10

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MODIFICATIONS 1. SUBSTRATE (Estimate percent	COMME s Form - Refer to "F	ENTS <u>Kande</u> Field Evaluation M	Sale Sille	٧ <u>٢</u>	
NOTE: Complete All Items On Thi STREAM CHANNEL INON MODIFICATIONS	s Form - Refer to "F	ield Evaluation M	and the second second second second second second second second second second second second second second second	ML) Ofreeinen fan lúster	
MODIFICATIONS: SUBSTRATE (Estimate percent	E / NATURAL CHANNE		الي محدد الراب المحد المعم بالما القوام المار	ALL PRESENCE TO LUST	uctions
SUBSTRATE (Estimate percent					)VERY
	infevery type of subs	irate present. Check	ONI Y two predominant	substrate TYPE.boxes	n de la de la desente Anna de la desente 1
(Max of 40). Add total fittinger of			Final metric score is sum		HHEI Metric
BLDR SLABS [16 pts]           BOULDER (>256 mm) [16 pt]			Ú CKÁNOODY DEBRIS [3 j		Point
BEDROCK [16 pt]           COBBLE (65-256 mm) [12 pt]	 S]		(RITUS [3 pts] Hardpan [0 pt]		Substrat Max = 4
GRAVEL (2-64 mm) [9 pls]			pts] AL [3 p1s]	20	6
Total of Percentages of	(A		in hain an	(B)	A+B
Bidr Siabs, Bouider, Cobbie, Bed SCORE OF TWO MOST PREDOMINATE		TOT.	AL NUMBER OF SUBST		
<ol> <li>Maximum Pool Depth (Measure evaluation, Avoid plunge pools fr</li> </ol>	e the maximum pool do	epth within the 61 m muster pipes) (Ct	eter (200 ft) evaluation a	each al the time of	Pool Dep Max = 3
<ul> <li>&gt; 30 centimeters [20 pts]</li> <li>&gt; 22.5 - 30 cm [30 pts]</li> </ul>		≫S. ≥5 cm -	10 cm [15 pts]		1/
0 > 10 - 22.5 cm [25 pts]	n ganapatan 'n din din da.		TER OR MOIST CHANN	X	
COMMENTS			AXIMUM POOL DEPTH		Bankful
3. BANK FULL WIDTH (Measured → 4.9 meters (> 13) [30 pts] → 3.0 m → 4.0 m (> 9' 7' → 13) [25 ;	u por e entre rend Tenton en directo. Bitago de la transforma directo directo di	>1,0 m	- 1.5 m (> 3' 3" - 4' 8") [15 (< 3' 3") [5 pis]	and the second second second second second second second second second second second second second second second	Width Max=30
□ >1,5m - 3.0m (>4'6"-9'7")[20	pts]	··· · · ··· ·· ···		est	125
COMMENTS	· ··· _ ·· · · · · · · · · · · · · · ·	A	VERAGE BANKFULL W	IDTH (meters)	
RIPARIAN ZONE AND F	This info LOODPLAIN QUALITY	rmation <u>must</u> also b ☆NOTE: River	e completed Left (L) and Right (R) as	loöking downstream år	
RIPARIAN WIDTH L R (Per Bank)		IN QUALITY fost Predominant per			
□ □           Wide >10m □ □         Moderate 5-10m		ature Forest, Wetland Imature Forest, Shrut		Conservation Tillage Urban or Industrial	
· Narrow <5m	Fl.	eid esidential, Park, New		Open Pasture, Row	
		enced Pasture		Crop Mining or Construction	-
FLOW REGIME (At Time Stream Rowing Subsurface flow with isola COMMENTS		Ż	Moist Channel, isolated p Dry channel, no water (E	pools, no flow (Intermittent) Ephemeral).	)
SINUOSITY (Number of	bends per 61 m (200 ft)	of channel) (Check	ONLY one box):		

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CWH Name:	Distance from Evaluated Stream HED AREA. CLEARLY MARK THE SITE LOCATION ap Page: NRCS Soil Map Stream Order  Quantity: Quantity: d. and alfach results) Lab Number: ) Conductivity (µmhos/cm)
CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream HED AREA. CLEARLY MARK THE SITE LOCATION ap Page: NRCS Soil Map Stream Order ################################
EWH Name:	Distance from Evaluated Stream HED AREA. CLEARLY MARK THE SITE LOCATION ap Page: NRCS Soil Map Stream Order  Quantity: Quantity: d. and alfach results) Lab Number: ) Conductivity (µmhos/cm)
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSH         SGS Quadrangle Name:       Payme, Owner, O	HED AREA. CLEARLY MARK THE SITE LOCATION         ap Page:
SGS Quadrangle Name:       Payne, Own       NRCS Soll M         sunty:       Pace/AMS       Township / City:       A         MISCELLANEOUS       See Flow Conditions? (Y/N):       Date of last precipitation:       Multic         otograph Information:       Canopy (% open):       Dete of last precipitation:       Multic         evated Turbidity? (Y/N):       Canopy (% open):       Dete of last precipitation:       Multic         evated Turbidity? (Y/N):       Canopy (% open):       Dete of last precipitation:       Multic         evated Turbidity? (Y/N):       Canopy (% open):       Dete of last precipitation:       Dete of last precipitation:         evated Turbidity? (Y/N):       Canopy (% open):       Dete of last precipitation:       Dete of last precipitation:       Dete of last precipitation:         evated Turbidity? (Y/N):       Canopy (% open):       Dete of last precipitation:       Dete of last pr	ap Page: NRCS Soll Map Stream Order
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Ise Flow Conditions? (Y/N): Date of last precipitation:	id, and alfach results) Lab Number ) Conductivity (µmhos/cm)
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BIOTIC EVALUATION	
formed? (Y/N): (If Yes, Record all observations. Voucher collections option	onal, NOTE: all voucher samples must be labeled with th
ID number. Include appropriate field data sheets from the	Primary Headwater Habitat Assessment Manual)
h Observed? (Y/N) Voucher? (Y/N)Salàrnanders Observed? (Y/N) gs or Tadpoles Observed? (Y/N), Voucher? (Y/N) Aquatic Macroinvertei	Voucher? (Y/N)
mments Regarding Biology. A///	prates Observed? (Y/N) Voucher? (Y/N)
	······
DRAWING AND NARRATIVE DESCRIPTION OF STREAM	M REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation	
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· · ·	Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization				
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001			

#### Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <u>http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</u>

Name: An ( ass Date: Affiliation: SMM OPUP Address: Ųĝ, Velan and 50 Phone Number: 2225 L e-mail address: Inntksmithsonp. com Name of Wetland: Vegetation Communit(ies): HGM Class(es): Ĵ. Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. NA Weldenalss Stub RPZ Lat/Long or UTM Coordinate 1340961 504757.4 04 USGS Quad Name County Township Section and Subsection Hydrologic Unit Code Æ. Site Visit 4 National Wetland Inventory Map Ohio Welland Inventory Map Soil Survey George - St Delineation report/map 

### Background Information

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Name of Wetland: Wettend \$3 Wetland Size (acres, hectares): - O. 25 a.c. Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. See Dellineathan Figure in Report Comments, Narrative Discussion, Justification of Category Changes: None Final score : Category: 11

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#### Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is 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 "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and uplaud. 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 should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, 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 patchwork on the landscape, wetlands divided by artificial boundaries 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 Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland,

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 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- induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	-	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		4
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		Lauren and
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		Constant and the second

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

### **Narrative Rating**

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INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <u>http://www.dnr.state.oh.us/dnap</u>. The remaining 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 habitat" is legally defined in the Endangered Species Act 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 3 Headquarters 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.

<i>π</i>	Question	Circle one
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES NO Wetland should be Go to Question 2 evaluated for possible Category 3 status Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES NO Wetland is a Category Go to Question 3 Go to Question 3
3	Documented High Quality Wetland, Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES NO Wetland is a Category Go to Question 4 Go to Question 4
4	Significant Breeding or Concentration Area. Does the welland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES NO Wetland is a Category Go to Question 5 3 wetland Go to Question 5
5	Category 1 Wetlands, is the welland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES     NO.       Wetland is a Category     Go to Question 6       1 wetland     Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphegnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES (NO Wetland is a Category Go to Question 7 3 wetland Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES NO Wetland is a Category Go to Question 8a 3 wetland Go to Question 8a
8a	"Old Growth Forest," Is the weiland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES     NO       Wetland is a Category 3 wetland.     Go to Question 8b

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8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the rouge of upper forest forest sectors and wetland with	YES	KNO/
	50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	NOT
	an elevation less than 575 feet on the USGS man, adjacent to this	1.00	00
9b	Period a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Gotto Question 10
90	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is	YES	NO
	partially hydrologically restricted from Lake Erie due to lakeward or landward dikes of other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	2 <sup>12111</sup>
)c	Are Lake Erie water levels the wetlend's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland	YES	NO -
	border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river month	Go to Question 9d	Go to Question 10
d	wetlands, or those dominated by submersed aquatic vegetation. Does the wetland have a predominance of native species within its		1 to the second
	vegetation communities, although non-native or disturbance tolerant	YES	(NO )
	native species can also be present?	Wetland is a Category	Go to Question 9e
		3 wetland	00 10 00030011 00
		Go to Question 10	. بما المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع ا
ŀе	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES	NO
		Wetland should be evaluated for possible	Go to Question 10
		Category 3 status	]
0	Lake Bloir Sand Brillion (Only One of 1771)	Go to Question 10	Martin Martin
	Lake Plain Sand Prairies (Oak OpenIngs) is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be	YES	NO
	characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	Wetland is a Category 3 wetland	Go to Question 11
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of	Go to Question 11	
	Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.		
1	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies	YES	NO
	were formerly located in the Darby Plains (Marison and Union	Wetland should be	Complete
	Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	evaluated for possible	Quantitative
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Category 3 status	Rating
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	

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#### Table 1. Characteristic plant species.

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invasive/exotic spp	fen species	bog species	Oak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamus frangula Typha angustifolia Typha sglauca	Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschâmpsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruitocsa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix seritsima Solidago ohioensis Tofteldia glutinosa Triglochin maritimum	Calla palusiris Carex atlantica var, capillacea Carex echinata Carex oligosperma Carex trisperma Chanaeadphne calpculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphogmon spp, Vaccinium nucrocarpon Vaccinium nucrocarpon Vaccinium nucrocarpon Vaccinium oxycoccos Woodheardia virginica Xyris difformis	Carex orypiolepis -Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Veet prante species Calamagrostis cănadensi Calamogrostis stricu Carex atherode Carex buxbaumu Carex pellit Gentiana andrewsi Helianthus groszeserratu Liatris spicati Lydrum datun Pychanthenum virginianun Silphium terebinthraceus Sorghastrum nutan. Spartina pectinați

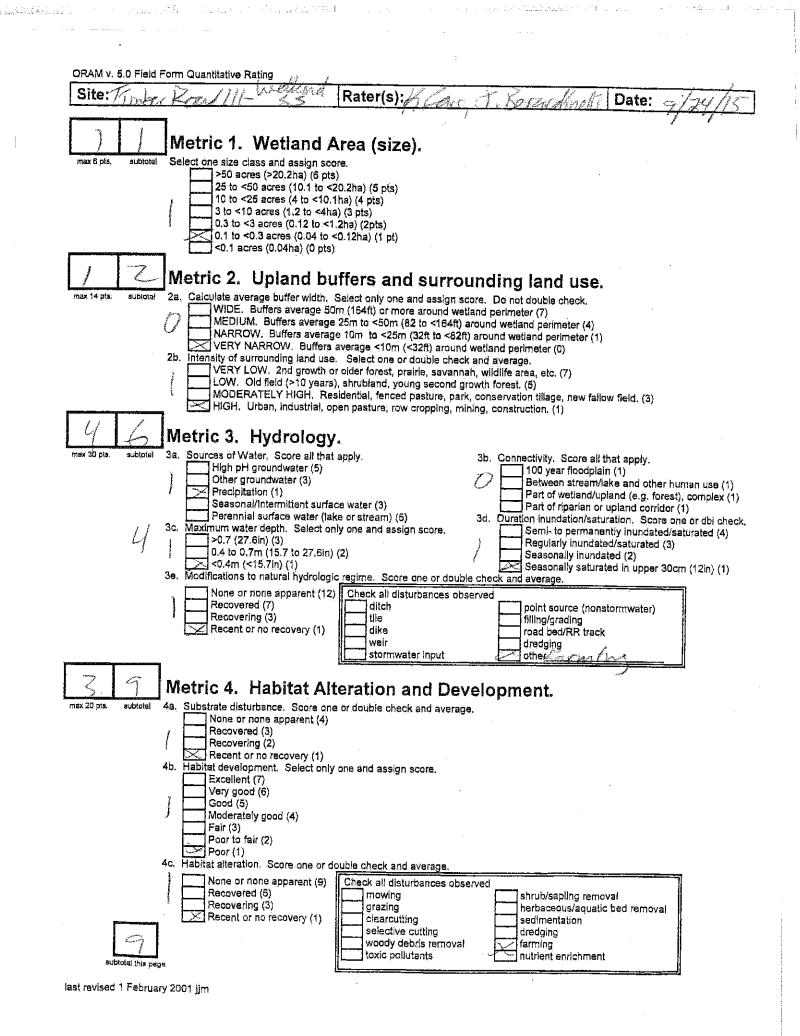
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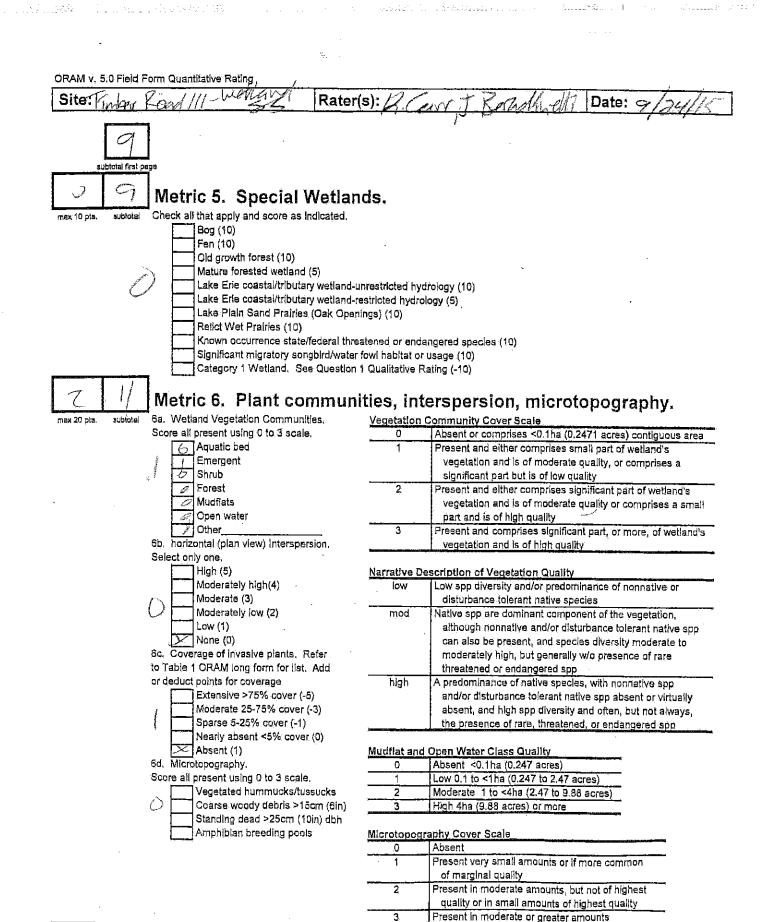
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End of Narrative Rating. Begin Quantitative Rating on next page.





GRAND TOTAL (max 100 pts)

Rejer to the most recent ORAM Score Calibration Report (or the scoring, breakpoints between welland categories at the following address; http://www.epa.state.oh/0s/dsw/401/401.html Jast revised 1 February 2001 jjm

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# **ORAM Summary Worksheet**

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		circle	
		answer or	
		insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES NO.3	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	if yes, Category 3.
	Question 3, High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO	If yes, Category 1.
	Question 6. Bogs	YES WO	If yes, Category 3,
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
:	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO.)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO.)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
2∪antitative Rating	Metric 1. Size		
	Metric 2. Buffers and surrounding land use		
Ì	Metric 3. Hydrology	4	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	0	<u>1996 - Angel Ang Angel Angel /u>
	Metric 6. Plant communities, interspersion, microtopography	Juseu	And School Street, Stre Street, Street, Str
	TOTAL SCORE	<sup>y + + +</sup> <sup>™</sup>	Category based on score breakpoints

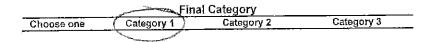
Complete Wetland Categorization Worksheet.

# Wetland Categorization Worksheet

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Choices	Circle one	~	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES ( Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-154(C) and biological and/or functional assessments to delemine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC. Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score greater than the Category 2 scoring threshold ( <i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score ( fail within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the <i>"gray zone"</i> for Category 1 or 2 or Category 2 or 3 wetlands?	YES ( Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (In the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background	Welland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons o information for this determination should be provided.



# End of Ohio Rapid Assessment Method for Wetlands.

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Project/Site: Timber Road III		City/	County: Pauldi	ing		Sampling Date:	9/22/15
Applicant/Owner: EDP Renewa	ables					_ Sampling Poin	t: SP-AA-1
Investigator(s): J. Stratigakos,	J.Berardinelli	Sect	ion. Township.				
Landform (hillslope, terrace, etc.)	. Riparian Fringe	Local re	lief (concave, c	onvex none).	Concave	Slop	 be (%): 「
Subregion (LRR or MLRA): LRF			L	ong: 530837	0.6		n: OH SP 83
Subregion (LRR of MLRA): Soil Map Unit Name: <u>Hoytville</u> s	silty clay. 0 to 1 per	cent slone (HtA)	L		NWI classific		"·
Are climatic / hydrologic condition					o, explain in Re		
Are Vegetation, Soil				re "Normal Cir	cumstances" p	resent?Yes 🚬	<u> </u>
Are Vegetation, Soil	, or Hydrology	naturally problem	natic? (li	f needed, expla	ain any answer	s in Remarks.)	
SUMMARY OF FINDINGS	S – Attach site n	nap showing sa	mpling poin	t locations	, transects,	important fe	atures, etc.
Hydrophytic Vegetation Presen	t2 Ves X	No	Is the Samp	led Area			
Hydric Soil Present?	Yes X	No	within a We	tland?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	If yes, option	al Wetland Sit	e ID: Wetland	I AA	
HYDROLOGY Wetland Hydrology Indicator	 s:			Se	condary Indica	tors (minimum of	two required)
Primary Indicators (minimum o	f one is required; chec	ck all that apply)			Surface Soil	Cracks (B6)	
Surface Water (A1)		Water-Stained Leav	ves (B9)		Drainage Pai	tterns (B10)	
High Water Table (A2)	_	Aquatic Fauna (B13	5)	_	Moss Trim Li	nes (B16)	
Saturation (A3)		Marl Deposits (B15		_	-	Nater Table (C2)	
Water Marks (B1)		Hydrogen Sulfide C		—	Crayfish Bur	. ,	(20)
Sediment Deposits (B2)		Oxidized Rhizosphe		loots (C3)		sible on Aerial Im	
Drift Deposits (B3)	·	Presence of Reduc			_ Stunted or S _ Geomorphic	iressed Plants (D Position (D2)	1)
Algal Mat or Crust (B4)		Recent Iron Reduct			Shallow Aqu		
Iron Deposits (B5) Inundation Visible on Aeria		Other (Explain in R				phic Relief (D4)	
Sparsely Vegetated Conce			sindino)	×	FAC-Neutral		
Field Observations:		<u></u>	·				
Surface Water Present?	Yes No _X	Depth (inches):					
Water Table Present?	Yes No X						
Saturation Present? (includes capillary fringe) Describe Recorded Data (strea		_ Depth (inches): S		-		nt? Yes X	No
Describe Recorded Data (strea	an gauge, monitoring	weii, aenai priotos, p	темоца паресс	iona), ii availdi			
·							<u> </u>
Remarks:							
			·				

<b>VEGETATION</b> -	Use scientific	names of	plants.
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Tree <u>Stratum</u> (Plot size:)	Absolute % Cover		t Indicator	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
·				
3				Total Number of Dominant       Species Across All Strata:         2   (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
3 <b></b>				Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
	-	= Total C		OBL species         x1 =         0
Sapling/Shrub_Stratum (Plot size:)				FACW species x 2 =0
				FAC species x 3 =
2				FACU species x4 =
3				UPL species $x = 0$
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
·	0	= Total C		✓ 2 - Dominance Test is >50%
<u>Herb Stratum</u> (Plot size:)	<u> </u>	- 10(210	DVCI,	3 - Prevalence Index is ≤3.0 <sup>1</sup>
<u>1. Phalaris arundinacea</u>	50	x	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supportin data in Remarks or on a separate sheet)
Carex sp.	40	<u> </u>	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<sub>3</sub> Juncus effusus	10		OBL	
Leersia oryzoides			OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Asclenias svriaca	5		UPL	be present, unless disturbed or problematic.
		·		Definitions of Vegetation Strata:
6				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				<ul> <li>Herb – All herbaceous (non-woody) plants, regardless</li> <li>of size, and woody plants less than 3.28 ft tall.</li> </ul>
11				
12				Woody vines – All woody vines greater than 3.28 ft ir height.
		= Total C	over	
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation Present? Yes X No
	0	= Total C	over	

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ampling Point	SP-AA-1
ampling Point	

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DIL			Sar	mpling Point:SP-AA-1
rofile Description: (D	escribe to the dep	oth needed to document the indicator or confirm t		
Depth	Matrix	Redox Features		
inches) Color (n		Color (moist)%Type <sup>1</sup> Loc <sup>2</sup>	_Texture	Remarks
0-12 10YR	3/1 100		Clay	Moist
			·	
<u> </u>				
				•••
	······			
ype: C=Concentration ydric Soil Indicators:		Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore L Indicators for Problem	
_ Histosol (A1)		Polyvalue Below Surface (S8) (LRR R,		.RR K, L, MLRA 149B)
_ Histic Epipedon (A2)	)	MLRA 149B)		x (A16) (LRR K, L, R)
Black Histic (A3)	/	Thin Dark Surface (S9) (LRR R, MLRA 149B)		r Peat (S3) (LRR K, L, F
_ Hydrogen Sulfide (A	(4)	Loamy Mucky Mineral (F1) (LRR K, L)	Dark Surface (S7) (	
_ Stratified Layers (Al		Loamy Gleyed Matrix (F2)		urface (S8) (LRR K, L)
Depieted Below Date		Depleted Matrix (F3)	Thin Dark Surface (	
<ul> <li>Thick Dark Surface</li> </ul>		Redox Dark Surface (F6)		asses (F12) (LRR K, L,
Sandy Mucky Miner	. ,	Depleted Dark Surface (F7)		in Soils (F19) (MLRA 14
				) (MLRA 144A, 145, 149
Sandy Gleyed Matri Sandy Gleyed Matri	IX (34)	Redox Depressions (F8)		
_ Sandy Redox (S5)			Red Parent Materia	
Stripped Matrix (S6)			Very Shallow Dark	
_ Dark Surface (S7) (	LRR R, MLRA 149	<b>B</b> )	Other (Explain in R	emarks)
		etland hydrology must be present, unless disturbed	or problematic.	
estrictive Layer (if ob Type:	iservea):			
Depth (inches):			Hydric Soil Present?	Yes <u>×</u> No
emarks:				

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Project/Site: Timber Road III			City/County: Pau	lding		Sampling Date: 9/	22/15
Applicant/Owner: EDP Renew	/ables					_ Sampling Point:	
Investigator(s): J. Stratigakos			_ Section, Township				
Landform (hillslope, terrace, etc		ge n	ocal relief (concave	convey none	. Concave	Slope	(%)
Subregion (LRR or MLRA): LR						Datum:	• •
Soil Map Unit Name: Hoytville							
					NWI classific		<u> </u>
Are climatic / hydrologic condition					f no, explain in Re		
Are Vegetation, Soil	, or Hydrology	/ significantl	y disturbed?	Are "Normal C	Circumstances" p	resent?Yes X	No
Are Vegetation, Soil	, or Hydrology	/ naturally p	roblematic?	(If needed, ex	plain any answer	rs in Remarks.)	
SUMMARY OF FINDING	S – Attach si	te map showin	g sampling poi	int location	ns, transects,	, important feat	tures, etc.
Hydrophytic Vegetation Prese		×No	Is the Sarr	npled Area			
Hydric Soil Present?		× No		/etland?	Yes X	No	
Wetland Hydrology Present?	Yes_			onal Wetland {	Site ID: Wetland	H AA	
Remarks: (Explain alternative					one ib		<del></del>
HYDROLOGY							
Wetland Hydrology Indicato					Secondary Indica	tors (minimum of tw	(o required)
		chock all that apply	\ \				<u>io required)</u>
Primary Indicators (minimum o	<u>n one is required,</u>				Surface Soil	. ,	
Surface Water (A1) High Water Table (A2)		Water-Stained		-	Drainage Pat Moss Trim Li		
Right Water Table (A2)		Aquatic Faulta					
Water Marks (B1)		Hydrogen Sul		-	Crayfish Burr		
Sediment Deposits (B2)			cospheres on Living	- Roots (C3)		sible on Aerial Imag	ierv (C9)
Drift Deposits (B3)			Reduced Iron (C4)			tressed Plants (D1)	
Algal Mat or Crust (B4)			Reduction in Tilled S	oils (C6)	× Geomorphic		
Iron Deposits (B5)		Thin Muck Su			 Shallow Aqui		
Inundation Visible on Aeri	al Imagery (B7)	Other (Explain	n in Remarks)	_		phic Relief (D4)	
Sparsely Vegetated Conc	ave Surface (B8)			-	× FAC-Neutral	Test (D5)	
Field Observations:							
Surface Waler Present?		× Depth (inche					
Water Table Present?		X Depth (inche					
Saturation Present? (Includes capillary fringe)	Yes X No	Depth (inche	s): Surface	Wetland Hy	ydrology Presen	nt? Yes <u>×</u>	No
Describe Recorded Data (stre	am gauge, monito	pring well, aerial pho	tos, previous inspec	L ctions), if avail	able:		
Demoder							
Remarks:							

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	Absolute	Dominant	Indicator	
		Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
2				Total Number of Dominant Species Across All Strata:2 (B)
3				Species Across All Strata: (B)
4	·			Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6	<u> </u>			Prevalence index worksheet:
7				Total % Cover of: Multiply by:
	•	= Total Cov		OBL species         x1 =
		1000100		FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species $x = 0$
1				FACU species $4 = 0$
2				UPL species         x 5 =0
3		. <u></u>		Column Totals: (A) (B)
4.				
5				Prevalence index = B/A =
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7		·	<del>.</del>	✓ 2 - Dominance Test is >50%
	0	= Total Co	ver	$3$ - Prevalence Index is $\leq 3.0^{1}$
Herb Stratum (Plot size:)				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Phalaris arundinacea	50	<u> </u>	FACW	data in Remarks or on a separate sheet)
2. Carex sp.	40	X	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3 Juncus effusus	10		OBL	
Leersia oryzoides	10		OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
5. Asclepias syriaca	5		UPL	be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8		<u> </u>		Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
				Herb – All herbaceous (non-woody) plants, regardless
10			·	of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12			·	height.
	115	_ = Total Co	ver	
Woody Vine Stratum (Plot size:)				
1				
2				
•	~	_		
3		-		Vegetation
4	0			Present? Yes X No
n		_ = Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

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OIL					dia st -		the phase of the	Sampling Point:	
	cription: (Describe	to the dept			dicator	or confirm	the absence of it	naiCators.)	
Depth (inches)	<u>Matrix</u> Coior (moist)	·	Redu Color (moist)	x Features %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-12	10YR 3/1	100			Type		Clay	Moist	
0-12					<u> </u>				
		· ·							
<u>.</u>		· ·		·			<u> </u>	·	
	· · · · ·	· ·				·		· · · · · · · · · · · · · · · · · · ·	
			•				<u> </u>		
	<u></u> ,	- <u> </u>	<u>.</u>						
		·							
	concentration, D=Dep	lotion DM-	Boducod Matrix, M		Sand G		<sup>2</sup> Location: Pl	L=Pore Lining, M=Matrix.	
	Indicators:	netion, Rivi-	Reduced Mainx, M	IS-IVIASKEU				Problematic Hydric Soils	3.
Histoso			Polyvalue Belo	w Surface (	( <b>LR</b>	RR,		k (A10) ( <b>LRR K, L, MLRA</b> 1	
	pipedon (A2)		MLRA 149E		/(	,		irie Redox (A16) (LRR K, L	
	listic (A3)		Thin Dark Surl	face (S9) (L	RR R, M	LRA 149B)		ky Peat or Peat (S3) (LRR	K, L, R)
Hydrog	en Sulfide (A4)		Loamy Mucky	Mineral (F1	) (LRR Þ	(, L)		ace (S7) (L <b>RR K, L</b> )	
Stratifie	d Layers (A5)		Loamy Gleyed	l Matrix (F2)				Below Surface (S8) (LRR	K, L)
Deplete	ed Below Dark Surfac	æ (A11)	Depleted Matr	ix (F3)				Surface (S9) (LRR K, L)	
× Thick D	ank Surface (A12)		Redox Dark S					anese Masses (F12) (LRR	
Sandy	Mucky Mineral (S1)		Depleted Dark		7)			Floodplain Soils (F19) (ML	
Sandy	Gleyed Matrix (S4)		Redox Depres	sions (F8)				odic (TA6) (MLRA 144A, 14	45, 1498
	Redox (S5)							nt Material (F21)	
	d Matrix (S6)							low Dark Surface (TF12)	
Dark Si	urface (S7) (LRR R, I	MLRA 149E	3)				Other (Exp	plain in Remarks)	
	of hydrophytic vegeta Layer (if observed)		etland hydrology mu	ust be prese	nt, unles	s disturbed	or problematic.		
Type:		• 							
	nches):						Hydric Soil Pre	esent? Yes <u>×</u> N	o
Remarks:									

	R RIVER BASIN // Marthale Kappan DRAINAGE AREA (mi <sup>2</sup> )
DATE $\frac{9}{24}/15$ scorer $\frac{2}{24}$	LAT. <u>41. 01. 46</u> LONG <u>84. 4555</u> RIVER CODE RIVER MILE COMMENTS Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction
	INATURAL CHANNEL D RECOVERED RECOVERING RECENT OR NO RECOVERY
MODIFICATIONS: SUBSTRATE (Estimate percent of	If every type of substrate present. Check ONLY two predominant substrate TYPE boxes
(Max of 40). Add total number of sig	gnificant substrate types found (Max of 8). Final metric score is sum of boxes A & B. <u>PERCENT</u> TYRE <u>PERCENT</u> Me POI
BOULDER (>256 mm) [16 pts]           BEDROCK [16 pt]	Image: Lease packawoody Debris [3 pts]         Image:
COBBLE (65-256 mm) [12 pts]	
Total of Percentages of	
Bidr Slabs, Boulder, Cobble, Bedroo CORE OF TWO MOST PREDOMINATE SU	
	the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of n read culverts or storm water pipes) (Check ONLY one box); (D) > 5 cm = 10 cm [15 pts]
□ > 10 - 22/5 cm [25 pts]	
COMMENTS	MAXIMUM POOL DEPTH (centimeters);
□ > 4.0 meters (> 13) [30 pt5] □ > 3.0 m · 4.0 m (> 9 7* - 13) [25 pts] ≥ 1.5 m · 3.0 m (> 4 8* - 9* 7*) [20 pts]	□ > tom = 1.5 m (> 3 ອ* - 4 ອາ ) (15 pts) 1
COMMENTS	AVERAGE BANKFULL WIGTH (meters)
RIPARIAN ZONE AND FLO	This information <u>must</u> also be completed OODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream&
<u>RIPARIAN WIDTH</u> L R (Per Bank)	FLOODPLAIN QUALITY
☐ ☐ Wide >10m ☐ ☐ Moderate 5-10m	Image     Image       Image     Image       Image     Image       Image     Image       Image     Image
∑ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	Pield Residential Park New Field Other Open Pasture, Row
	Fenced Pasture     Grop     Grop
	of Evaluation) (Check ONLY one box): Molst Channel, isolated pools, no flow (Internitient) d pools (Interstitial) Dry channel, no water (Ephemeral)
COMMENTS	

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MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION         USGS Quadrangle Name       Family         MISCELLANEOUS         Base Flow Conditions? (YM):       Date of last precipitation:         MISCELLANEOUS         Base Flow Conditions? (YM):       Date of last precipitation:         MISCELLANEOUS         Base Flow Conditions? (YM):       Date of last precipitation:         MISCELLANEOUS         Base Flow Conditions? (YM):       Cenopy (% open):         Eleveled Turbidly? (YM):       Cenopy (% open):         Eleveled Turbidly? (YM):       Cenopy (% open):         Field Measures:       Temp (*C)         Distorted Oxygen (mg/t)       pH (S.U.)         Conductivity (umhos/cm)       if not, please explain:         Additional comments/discription of pollution impacts:       Additional comments/discription of pollution impacts:         Additional comments/discription of pollution impacts:       Additional sphered (YN)       If not, please explain:         Ib Dumber:       Incluse appropriate field data sheets from the Primary Headwater Habitat Assessment Marxia)         Field Measured?       (YN)       Voucher? (YN)         Voucher? (YN)       Voucher? (YN)       Salamenders Observed? (YN)       Voucher? (YN)         Fish Observed? (YN)       Voucher?	ADDITIONAL STREAM INFORMATION (This Infor	rmation Must Also be Completed):
DWMN Name:       Distance from Evaluated Stream         CWH Name:       Distance from Evaluated Stream         EWH Name:       Distance from Evaluated Stream         MAPRING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION         USGS Custangle Name.       PAYME         MAPRING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION         USGS Custangle Name.       PAYME         MISCELLANEOUS       Township / Chy.         Base Flow Conditions? (YN)       Date of last prediptation:         MISCELLANEOUS       Base Flow Conditions? (YN)         Base Flow Conditions? (YN)       Date of last prediptation:         MISCELLANEOUS       Base Flow Conditions? (YN)         Base Flow Conditions? (YN)       Date of last prediptation:         MISCELLANEOUS       Base of last prediptation:         Base Flow Conditions? (YN)       Date of last prediptation:         Miscella Namburg       Canopy (% open):         Base Flow Conditions? (YN)       Quentity:         Status Evand       Quentity:         Status Evand       Discoved Oxygen (mg/n)         pH (SU.)       Conductivity (umhas/cm)         Is the sampling reach representative of the stream (YN)       If not, please explain         Additional commentistifesc		QHEI Score (if Yes, Attach Completed QHEI Form)
□ CWH Name:	DOWNSTREAM DESIGNATED USE(S)	110 52 m
□ EVH Name:		
USGS Quadrangle Name. <u>Payme</u> <u>OMP</u>	EWH Name:	Distance from Evaluated Stream
County:       MisCellANEOUS         Base Flow Conditions? (YN):       Date of last precipitation:       MisC         Photograph Information:       MisC       Ouentify:         Photograph Information:       Canopy (% open):       DP         Elevated Turbidity? (YN):       Canopy (% open):       DP         Were samples collected for water chemistry? (YN):       (Note lab sample no. or id. and attach results) Lab Number:       Fleid Measures:         Fleid Measures:       Temp (*C)       Discolved Oxygen (mpf)       Dr.       Conductivity (umhos/cm)         Is the sampling reach representative of the stream (YN)       If not, please explain:       Conductivity (umhos/cm)         BiOTC EVALUATION       Flore       BiOTC EVALUATION       Performed? (YN):       Note: representative of all observations. Voluther collections optional. NOTE: all woucher samples must be labeled with the size in Dinumber.         Fleid Cbserved? (YN):       Volucher? (YN):       Volucher? (YN):       Volucher? (YN):         Fleid Cbserved? (YN):       Volucher? (YN)       Volucher? (YN):       Volucher? (YN):         Fleid Cbserved? (YN):       Volucher? (YN):       Volucher? (YN):       Volucher? (YN):         Comments Regarding Biology:       Add       Add       Add as sheets from the Primary Headwater Habitat Assessment Marcual)         Flob served? (YN):       Volucher? (	MAPPING: ATTACH COPIES OF MAPS, IN	NCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
County:       Miscellaneous         Miscellaneous       Date of last precipitation:       Misc         Photograph Information:       Date of last precipitation:       Miscellaneous         Photograph Information:       Cenopy (% open):       Date         Elevated Turbidity? (YN):       Cenopy (% open):       Date         Fleid Measures:       Temp (*C)       Discoved Oxygen (mg/l)       pH (S.U.)         Conductivity (umhos/cm)       Sibesoved Oxygen (mg/l)       pH (S.U.)       Conductivity (umhos/cm)         Is the sampling reach representative of the stream (YN)       If not, please explain:       Dot Miscellaneous         Biotic EVALUATION       If not, please explain:       Dot Miscellaneous       Diff during the stream (YN)         Fleid Measures:       If Yes, Record all desenctions:       Vouther collections optional, NOTE: all voucher samples must be labeled with the size in number:       Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)         Fleid Coserved? (YN):       Voucher? (YN)       Voucher? (YN)       Voucher? (YN)       Voucher? (YN)         Fleid Measures:       Include Important landmarks and other features of interest for site evaluation and a narrative description of the stream's location         DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):       Include Important landmarks and other features of interest for site evaluati	USGS Quadrangle Name: PAYNE, O	NRCS Soil Mab Page: NRCS Soil Map Stream Order
MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last predipitation: MMK Quentity: Photograph Information: Photograph Information: Photograph Information: Elevated Turbidity? (Y/N): Canopy (% open): Elevated Turbidity? (Y/N): Canopy (% open): Prediction and attach results) Lab Number: Flidd Measures: Temp (°C) Dissolved Oxygen (mg/) pH (S.U.) Conductivity (umhos/cm) Is the sampling reach representative of the stream (Y/N) If not, piease explain: Additional comments/description of pollution impacts:AT		·
Base Flow Conditions? (Y/N): Date of last precipitation: M_M Quantity:		iteration of the second s
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Eleveled Turbidily? (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/n) pH (S.U.) Conductivity (umhos/cm) Is the sampling reach representative of the stream (Y/N) If not, picase explain: Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ske ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Freqs or Tedpoles Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include Important landmarks and other features of interest for site evaluation and a parative description of the stream's location Additional features of interest for site evaluation and a parative description of the stream's location Additional Field Water Additional Additional Additional and a parative description of the stream's location Additional field additional Addition Additional Additional Additional Additional Additional	Base Flow Conditions? (Y/N): Date of last	t precipitation: <u>but from a Quantity:</u>
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Were samples collected for water ohemistry? (Y/N):	Elevated Turbidity? (Y/N): Canopy (%	% open): <u>/ 12-12</u>
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Is the sampling reach representative of the stream (Y/N) If not, please explain:		
Additional comments/description of pollution impacts: <u>Alsoficient Marcal</u> <u>Marcal</u> <u>Marcal</u> <u>Marcal</u> <u>BiOTIC EVALUATION</u> Performed? (Y/N): <u>Marcal</u> (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. include appropriate field data sheels from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) <u>Voucher? (Y/N)</u> Salaman ders Observed? (Y/N) <u>Voucher? (Y/N)</u> Voucher? (Y/N) Frogs or Tedpoles Observed? (Y/N) <u>Voucher? (Y/N)</u> Aquatic Macroinvertebrates Observed? (Y/N) <u>Voucher? (Y/N)</u> Comments Regarding Biology. <u>Marcal</u> 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 <u>Acadedee Marcal</u> FLOW		
BIOTIC EVALUATION         Performed? (Y/N):	is the samping reach tepresentative of the shearn (	(T/N)If hot, please explain,
ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)  Fish Observed? (Y/N)	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)       Comments Regarding Biology         Comments Regarding Biology       Aquatic Macroinvertebrates Observed? (Y/N)       Voucher? (Y/N)         DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):       Include Important landmarks and other features of interest for site evaluation and a parative description of the stream's location         Add Wing       Add Wing       Add Wing         FLOW       FLOW       FLOW	ID number. Include a	appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Comments Regarding Biology	Fish Observed? (Y/N) / ** Voucher? (Y/N) Frogs of Tadpoles Observed? (Y/N) Voucher?	Salamanders Observed? (Y/N)Voucher? (Y/N) ? (Y/N)Aruatic Macroinvertebrates Observed? (Y/N)Voucher? (Y/N)
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June 20, 2008 Revision

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	MAHAAI	(sum of metrics 1, 2, 3) :	البعديدي 1921 - منابع
LENGTH OF STREAM REACH (1) 200	RIVER BASIN MAUMOE		<u>Defi</u> ne
DATE 10/27/15 SCORER KAZ	COMMENTS ROADSIDE T	HJTK	<u>_</u>
NOTE: Complete All Items On This Form STREAM CHANNEL	<ul> <li>A second s</li></ul>	and a term and a second contract to the term of a fermion	da strati a se
	y type of substrate present. Check ONLY <u>two</u> ant substrate types found (Max of 8). Final metri		HHEI
	ERCENT TYPE	<u>PERCENT</u>	Metric Points
BOULDER (>256 mm) [16 pts]			Substrate Max = 40
	X D CLAY & HARDPAN		max = 40
□ □ <u>SAND (&lt;2 mm) [6 pls]</u>	ARTIFICIAL [3 pls]		
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock		(B) 2	A+B
2. Maximum Pool Depth (Measure the ma	aximum pool depth within the 61 meter (200 i	ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road > 30 centimeters (20 pts) > 22.5 - 30 cm [30 pts]	l cuivents or storm water pipes) (Check ONL) S cm - 10 cm [15 S cm - 5 cm - 10 cm [15]		Max = 30
A + 10 - 22.5 cm [25 pts]		OIST CHANNEL (0 pts)	27
		POQL DEPTH (centimeters): formation	Bankfull
3. BANK FULL WIDTH (Measured as the s > 4.0 meters (> 13) [30 pts] > 3.0 m ≥ 4.0 m (> 9 71 ≥ 13) [25 pts] > 1.5 m - 3.0 m (> 4'8' - 9'7') [20 pts]	□ >1.0m - 1.5 m (>3	3' 3" - 4' 8') [15 pts]	Width Max=30
	AVERAGE E	BANKFULL WIDTH (meters)	25
RIPARIAN ZONE AND FLOODP	This Information <u>must</u> also be complet LAIN QUALITY & ANOTE: River Left (L) and	fed d Right (R) as looking downstream≴r	
<u>RIPARIAN WIDTH</u> L R (Per Bank)	FLOODPLAIN QUALITY L R (Most Predominant per Bank)		
☐ ☐ Wide >10m ☐ ☐ Moderate 5-10m	Mature Forest, Wetland     Immature Forest, Shrub or Old     Field	□□ Conservation Tillage □ 💢 Urban or Industrial	
Narrow <5m	C Residential, Park, New Field	Open Pasture, Row Crop	
	Fenced Pasture	Mining or Construction	
FLOW REGIME (At Time of Evalue Stream Flowing Subsurface flow with isoleted pool COMMENTS	🔲 Molst Char	nnel, isolated pools, no flow (intermittent) el, no water (Ephemeral)	
	er 61 m (200 ft) of channel) (Check ONLY one	e box):	
SINUOSITY (Number of bends pa	1.0 0 2.0	Ū 3.0	

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	INFORMATION (This information Must Also be Completed):
	RMED? - 🗌 Yes 🖾 No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREA Swwhname: FL	M DESIGNATED USE(S)
J CWH Name:	Distance from Evaluated Stream
] EWH Name:	Distance from Evaluated Stream      Distance from Evaluated Stream
MAPPING: AT	TACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
SGS Quadrangle Name	F
ounty: Part	AThs Township / City: The State and Stream Order
MISCELLANE	
se Flow Conditions? (1	$\checkmark$
otograph Information:	
	KN Canopy (% open): <u>↓ ② ①</u>
ere samples collected for	for water chemistry? (Y/N): (Note lab sample no. or id, and attach results) Lab Number:
ad Measures: Temp	p (°C) Dissolved Oxygen (mg/) pH (S.U.) Conductivity (µmhos/cm)
the sampling reach repl	resentative of the stream (Y/N) If not, please explain:
dditional comments/desc MTTCK	cription of pollution impacts: Roads? le as à cul Mural de Munal
BIOTIC EVALU	
rformed? (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)
sh Observed? (Y/N) <u>}</u>	Voucher? (Y/N) Salamanders Observed? (V/N) Voucher? (V/AI)
ngs or Tadpoles Observ	Veu? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrales Observed? (Y/N) Voucher? (Y/N)
mments Regarding Bio	Nogy_NONL
DRAWING	GAND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include Important I	landmarks and other features of interest for site evaluation and a narrative description of the stream's location
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_ow →	HIPOANO File A Grassed Isank
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June 26, 2008 Revision

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		hary Head	water Ha	bitat Evalu HHEI Score			3U
SITE NAME	- 1	· ·		ny Marie dasa		INAGE AREA (mi²) <u>Ĉ</u>	18
DATE <u> 0</u> NOTE: C STREAM		OD LAT. 41. KAZ C	019045 LONG COMMENTS <u>R</u>	a- <u>B4 14588</u> 8 <sub>RIV</sub> <u>DANSIDE (</u> uation Manual for sovered [] Rec	VER CODE )[17 <u>7_1-1</u> Ohio's PHWI ROVERING (45	RIVER MILE	uctions
	BSTRATE (Estimate perc ax of 40). Add lotal number BLDR SLABS [16 pts] BOULDER (>256 mm) [11 BEDROCK [16 pt] COBBLE (65-256 mm) [1 GRAVEL (2-64 mm) [9 pt SAND (<2 mm) [6 pts]	of significant subsir <u>PERCENT</u> pis] pis] s]	ate types found () TYPE	nt. Check ONLY two	predominiant su score is sum o Y DEBRIS [3 pts pts]	f boxes A & B. <u>PERCENT</u>	HHE Metri Point Substra Max =
Bit SCORE OF	Tolal of Percentages of Ir Slabs, Boulder, Cobble, I TWO MOST PREDOMIN/	Bedrock		TOTAL NUMBI	ER OF SUBSTR		A + B
	aximum Pool Depth (Meas aluation. Avoid piunge poo 0 centimeters [20 pts] 2.5 - 30 cm [30 pts] 0 - 22.5 cm [25 pts]	is from road culverts	or storm water p	oes) (Check ONLY > 5 cm - 10 cm [15 < 5 cm [6 pts] - NO WATER OR M	one box): pis] OIST CHANNEI	(0 pts)	Max =
	DMMENTS				OOL DEPTH (		
	ANK FULL WIDTH (Measu Ometers (> 13) [30 pts] .0m - 4.0m (> 9' 7' - 13) [ .5m - 3.0m (> 4' 8'' - 9' 7')	25 pts]	of 3-4 measurem	lents) (Che > 10 m - 1.5 m (> 3 ≤ 1.0 m (≤ 3'37)[5			Bankfi Width Max=3
C	DMMENTS	<u> </u>		AVERAGE E	SANKFULL WIE		
ے عر بھر	RIPARIAN ZONE AN <u>RIPARIAN WIDTH</u> R (Per Bank) ] U Wide >10m ] Moderate 5-10m ] (JK Narrow <5m ] U None	D FLOODPLAIN QU	JALITY & NC DDPLAIN QUALIT (Most Predor Mature Fore: Immature Fo Field Residential, I	Y ninani per Bank) a, Wetland rest, Shrub or Old Park, New Fleid		oking downstream☆ Conservation Tillage Urban or Industrial Open Pasiure, Row Crop Mining or Construction	
-	COMMENTS FLOW REGIME (At ) Stream Flowing	Time of Evaluation)		Moist Char	anel, isolated po el, no water (Ep	ols, no flow (Intermitten hemeral)	 i)
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ADDITIONAL STREAM INFORM	ATION (This Information Must Also be Completed):
	Yes X No QHEI Score (If Yes, Altach Completed QHEI Form)
DOWNSTREAM DESIG XWWH Name: <u>Fluty</u> CWH Name:	Distance from Evaluated Stream
	Distance from Evaluated Stream
USGS Quadrangle Name:	PIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
Dounty: Percildet	Township/City: bforsy ison
MISCELLANEOUS	
ase Flow Conditions? (Y/N):	Date of fast precipitation: Un K. Quantity:
holograph Information:	<u>\$</u>
levated Turbidity? (Y/N):	Canopy (% open):
vere samples collected for water	chemistry? (Y/N): (Note lab sample no. or io, and attach results) Lab Number:
	Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
the sampling reach representation	ve of the stream (Y/N) If not, please explain:
dditional comments/description o	pollution impacts: ROANSPAR assiculturent dizitionse
BIOTIC EVALUATION	
erformed? (Y/N): (# ID	Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
rogs or Tadpoles Observed? (Y/N	ucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) I), Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
omments Regarding Biology. <u>}</u>	
	NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed);
n lei di de li li fon cant landillari	ks and other features of interest for site evaluation and a narrative description of the stream's location $A$
	Active As. Freld Veselmed
LOW	TAT Brassed Bank
	Gassed Garden
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June 20, 2008 Revision

17. State - State State and

Chieff Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) : SITE NAMERLOCATION
STREAM CHANNEL IN NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS
1.       SUBSTRATE (Estimate percent of every type of Substrate present. Check ONL Y two predominant substrate TYPE boxes (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.       HHEI         TYPE       BLDR SLABS [16 pts]       PERCENT       TYPE       SILT [3 pt]       PERCENT       PERCENT       POInts         BOULDER (>256 mm) [16 pts]       D       LEAF PACKWOODY DEBRIS [3 pts]       Substrate       Substrate       Metric Points         BEDROCK [16 pt]       D       LEAF PACKWOODY DEBRIS [3 pts]       Substrate       Max = 40         COBBLE (62-256 mm) [12 pts]       D       SL CLAY or HARDPAN [0 pt]       Substrate         Max = 40       SAND [<2 mm) [16 pts]
2.       Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes)       (Check ONLY one box):       Pool Depth         > 30 centimeters [20 pts]       > 5 cm - 10 cm [15 pts]       > 5 cm - 10 cm [15 pts]       Pool Depth         > 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0 pts]       /5         COMMENTS
3.       BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box):       Bankfull         1       > 4.0 mders (> 13) [30 pts]       > 1.0 m ± 15 m (> 3 3 - 4 8") [45 pts]       Width         3.0 m ± 4.0 m (> 9 7 + 13) [25 pts]       > 1.0 m ± 15 m (> 3 3 - 4 8") [45 pts]       Width         0       > 3.0 m ± 4.0 m (> 9 7 + 13) [25 pts]       > 51.0 m (≤ 3 3") [5 pts]       Width         0       > 1.5 m = 3.0 m (> 4 8" - 9" 7") [20 pts]       S1.0 m (≤ 3 3") [5 pts]       Z.Z         COMMENTS
This Information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY       SNOTE: River Left (L) and Right (R) as looking downstream fr         RIPARIAN WIDTH       FLOODPLAIN QUALITY       SNOTE: River Left (L) and Right (R) as looking downstream fr         L       R       (Per Bank)       L       R         I       I       Moderate 5-10m       I       R         I       Moderate 5-10m       I       R       I       R
Image: Sime structure     Image: Sime structure <td< td=""></td<>
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       COMMENTS
SINUO SITY (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 Fisit (0.5 fr/100 ft) Fisit to Moderate (2 fr/100 ft) Moderate to Severe Severe (10 fr/100 ft) Severe (10 fr/100 ft)

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ADDITIONAL CTREAMINECODICATION (T. C. C. M	
ADDITIONAL STREAM INFORMATION (This information Must Also i QHEI PERFORMED? - 🗍 Yes 📈 No QHEI Score	
DOWNSTREAM DESIGNATED USE(S)	
WH Name:	Distance from Evaluated Stream
/ CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENT	IRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: <u>Perhap</u> Ohto	NRCS Sofi Map Page; NRCS Soil Map Stream Order
County: <u>AUIAANA</u> Townsh	ip/city_Hannison Thep.
MISCELLANEOUS	
Base Flow Conditions? (Y/N):	1nk- Quantity:
Photograph Information: Ye 5	
Elevated Turbidity? (Y/N): Canopy (% open): [	)
Nere samples collected for water chemistry? (Y/N): (Note lab s	
	pΗ (S.U.) ConductIvity (μmhos/cm)
s the sampling reach representative of the stream (Y/N) If not, pl	
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_ditch	159 de agrícu/Misul drainage
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations, Voucher of	collections optional. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data s ish Observed? (Y/N) Voucher? (Y/N) Salamanders Obs irogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic comments Regarding Biology	served? (Y/N) Voucher? (Y/N) Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION O	DF STREAM REACH (This <u>must</u> be completed):
	site evaluation and a narrative description of the stream's location $L = \frac{1}{2} \frac{1}{2}$
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June 20, 2008 Revision

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OFFERA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):
SITE NAME/LOCATION LETREMM N-A
SITE NUMBER RIVER BASIN MAUMTE KWER DRAINAGE AREA (mi?) UNDEFINED
LENGTH OF STREAM REACH (II) 1591 LAT. UL.033174 LONG BY, 75809 RIVER CODE RIVER MILE
DATE 11515 SCORER 2NB COMMENTS KOADSIDE DITCH
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
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]       0%       SILT [3 pt]       0%
Total of Percentages of 0.00% (A) Bidr Slabs, Boulder, Cobble, Bedrock 0.00% (A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 0 TOTAL NUMBER OF SUBSTRATE TYPES: 10
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 22.5 cm [25 pts] > 10 22.5 cm [25 pts] COMM ENTSMax = 30 > 5 cm - 10 cm [15 pts] < 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]Max = 30 $0.37$ 
COMMENTS
This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY       ANOTE: River Left (L) and Right (R) as looking downstream and a stream
X     Narrow <5m     I     Residential, Park, New Field     X     Open Pasture, Now Glop       None     I     Fenced Pasture     I     Mining or Construction       COMMENTS     I     I     I     I
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       Image: Commentation of the second se
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

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October 24, 2002 Revision

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DDITIONAL STR	EAM INFORMATIC	<u>ON (This Inf</u>	ormation Mu	ist Also be Com	pleted):			
QHEI PE	RFORMED?	Yes 📉 No	QHEI Scor	e (i	f Yes, Attach Co	ompleted QHI	el Form)	
	TREAM DESIGNA	TED USE(S	)	الجرور والمحافظ والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والم				ſ
WWH Name: CWH Name:		مىرى تەرىپىرى بىرى بىرى بىرى بىرى بىرى بىرى بىر					valuated Stream	
EWH Name:	۲۰ پول دارون در دارون در بارون r>همچنین در بارون در بار	20-20-20-20-20-20-20-20-20-20-20-20-20-2			Dis	tance from E	valuated Stream	
MAPPIN	G: ATTACH COPIE	S OF MAPS	, INCLUDING	THE ENTIRE W	TERSHED ARE	A. CLEARLY	MARK THE SITE	
SGS Quadrangle	Name: PAYA	VE.		NRCS	Soil Map Page:	NRC	CS Soil Map Stre	am Order
ounty: Wyandot	PAULDINY	<u></u>		Township / City	. HARF	CIGOIL		
MISCEL	LANEOUS							
ase Flow Conditio	ons? (Y/N): Y	_ Date of la	ist precipitatio	on: UNKNUW	$\mathbb{N}$	Quantity:	0.00	
hotograph Inform	ation:							
levated Turbidity?	YIN: YN	Canopy	/ (% <u>open</u> ): _[	<b>0%</b>	00%0			
-	ected for water che			Note lab sample	no, or id, and a	itach results)	Lab Number:	
ield Measures;	Temp (°C)	····]	Oxygen (mg		H (S,U.)		ity (µmhos/cm)	
	ach representative		v	} •				
			······································					
erformed? (Y/N):		nber. Includ v	e appropriate t	Voucher collection field data sheets t Inders Observed	from the Primary $\sqrt{\sqrt{1}}$	Headwater Ha	er samples must b abijat Assessment	e labeled with th Manual)
rogs or Tadpoles	Observed? (Y/N)	her? (Y/N) Y   Vouch NC	er? (Y/N) Y		? (Y/N) <u>  /   ~  </u> ^ pinvertebrates O	/oucher? (Y/f bserved? (Y/		r? (Y/N)
rogs or Tadpoles comments Regard	Observed? (Y/N)		er? (Y/N) Y	Aquatic Macro PTION OF ST	REAM REA	bserved? (Y/	N(YE) Voucher	pleted):
rogs or Tadpoles comments Regard	Observed? (Y/N)	NO NO ARRATIVI and other fe	er? (Y/N) Y NF E DESCRIP Patures of Int RUUTE	Aquatic Macro PTION OF ST	REAM REA	bserved? (Y/	N(YE) Voucher	pleted):
rogs or Tadpoles comments Regard DRA Include imp	Observed? (Y/N)	NO NO ARRATIVI and other fe	er? (Y/N) Y NF E DESCRIP Patures of Int RUUTE	Aquatic Macro	REAM REA	bserved? (Y/	N(YE) Voucher	pleted):
Comments Regard	Observed? (Y/N)	NO NO ARRATIVI and other fe	er? (Y/N) Y NE DESCRIF RELUTE VE(76TF VE(76TF VE(16TF)	Aquatic Macro	REAM REA aluation and a n	bserved? (Y/	N(YE) Voucher	pleted):
orgs or Tadpoles comments Regard DRA Include imp	Observed? (Y/N)	NO NO ARRATIVI and other fe	er? (Y/N) Y NE DESCRIF RELUTE VE(76TF VE(76TF VE(16TF)	Aquatic Macro	REAM REA aluation and a n	bserved? (Y/	Ny Voucher	pleted):

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<b>ONINEERA</b> Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) :
SITE NAME/LOCATION <u>STREAM - NB</u> SITE NUMBER <u>RIVER BASIN MAUMER BIVER</u> DRAINAGE AREA (m <sup>P</sup> ) <u>STREAM</u> LENGTH OF STREAM REACH (ff) <u>5273</u> LAT. <u>41.0173</u> LONG- <u>84.3573</u> RIVER CODE RIVER MILE DATE <u>11315</u> SCORER <u>DNB</u> COMMENTS <u>KOADBIDE</u> <u>OTICH</u> NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
STREAM CHANNEL INONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY
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.       HHEI         TYPE       BLDR SLABS [16 pts]       PERCENT       TYPE       SILT [3 pt]       PERCENT       0%         BCDR OCK [16 pt]       0%       0%       1       FINE DETRITUS [3 pts]       0%       0%       Substrate       Substrate       Max = 40         COBBLE (65-256 mm) [12 pts]       0%       0%       1       ARTIFICIAL [3 pts]       0%
Bidr Stabs, Boulder, Cobble, Bedrock 0.00% (4) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 0 TOTAL NUMBER OF SUBSTRATE TYPES: 0 Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS 31 3 4 1 1 0 3 1 3 4 1 1 0 3 1 3 4 1 1 0 3 1 3 4 1 1 0 3 1 3 4 1 1 0 3 1 3 4 1 1 0 3 1 3 4 1 1 0 3 1 3 4 1 1 0 3 1 3 4 1 1 0 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
$ \begin{array}{c} 5.4.0 \text{ meters } (> 13) \ [30 \ pts] \\ > 3.0 \ m \ - 4.0 \ m (> 9' \ 7' \ - 13') \ [25 \ pts] \\ > 1.5 \ m \ - 3.0 \ m \ (> 9' \ 7' \ - 4' \ 9'') \ [20 \ pts] \\ > 1.5 \ m \ - 3.0 \ m \ (> 9' \ 7' \ - 4' \ 9'') \ [20 \ pts] \\ \end{array} \right) \\ \hline \begin{array}{c} \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline \hline$
This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY         RIPARIAN WIDTH       FLOODPLAIN QUALITY         L       R         (Per Bank)       L         Wide >10m       Mature Forest, Wetland         Wide >10m       Immature Forest, Shrub or Old         Moderate 5-10m       Immature Forest, Shrub or Old         Narrow <5m
Subsurface flow with isolated pools (Interstitial)       Imposition of the set of
STREAM GRADIENT ESTIMATE Flat to 5.5 n/100 ft) Flat to Moderate (2 1/300 ft) Moderate (2 1/300 ft) Colober 24, 2002 Revision PHWH Form Page - 1

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PHWH Form Page - 1

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	No QHEI Score (IFYes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED US	E(S) Distance from Evaluated Stream
WWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF M	APS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: PANNE	NRCS Soil Map Page: NRCS Soil Map Stream Order i
County: Wyandot PAULDINH	Township / City: HARRISUN
MISCELLANEOUS	
Base Flow Conditions? (Y/N):	of last precipitation: UNKNUMM Quantity: 0.00
Photograph Information:	
6.7.1	nopy (% open): 0% 10076
Were samples collected for water chemistry	(Y/N); YN (Note lab sample no, or id. and attach results) Lab Number:
	olved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the s	tream (Y/N) // If not, please explain:
Additional comments/description of pollution	IMPACTS: ROADSIDE AGRICUTURAL DRAMUAGE
DITCH	
Y	rd all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site
Performed? (Y/N): (If Yes, Reco	nclude appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
· · · · · · · · · · · · · · · · · · ·	
Fish Observert? (Y/N) Voucher? (Y	//N/Y Salamanders Observed? (Y/N)/Y Voucher? (Y/N)/Y Voucher? (Y/N)/Y Aquatic Macroinvertebrates Observed? (Y/N)/Y Voucher? (Y/N)
Fish Observed? (Y/N) Voucher? (Y Frogs or Tadpoles Observed? (Y/N) V Comments Regarding Biology:	/oucher? (Y/N) Y Aquatic MacroInvertebrates Observed? (Y/N) Y Voucher? (Y/N)
Fish Observed? (Y/N) Voucher? (Y Frogs or Tadpoles Observed? (Y/N) Y N Comments Regarding Biology:	/oucher? (Y/N) Y Aquatic Macroinvertebrates Observed? (Y/N) Y Voucher? (Y/N)
Fish Observed? (Y/N) Voucher? (Y Frogs or Tadpoles Observed? (Y/N) Y N Comments Regarding Biology: CRAWFIKO , PIN BUIL PUND WEEV , CRAW	/oucher? (Y/N) Y Aquatic MacroInvertebrates Observed? (Y/N) Y Voucher? (Y/N) SPICES
Fish Observed? (Y/N) Voucher? (V Frogs or Taidpoles Observed? (Y/N) V ) Comments Regarding Biology: CRAWFURD, PIN BUD PUND WEED, CRAW	Aquatic MacroInvertebrates Observed? (Y/N)       Voucher? (Y/N)         SPIMPS       Aquatic MacroInvertebrates Observed? (Y/N)         Y       Voucher? (
Fish Observed? (Y/N) Voucher? (V Frogs or Taidpoles Observed? (Y/N) V ) Comments Regarding Biology: CRAWFURD, PIN BUD PUND WEED, CRAW	Aquatic MacroInvertebrates Observed? (Y/N) Y Voucher? (Y/N) SPICES DDAL CASTLES TIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): ther features of interest for site evaluation and a narrative description of the stream's location
Fish Observed? (Y/N) Voucher? (V Frogs or Taidpoles Observed? (Y/N) V ) Comments Regarding Biology: CRAWFURD, PIN BUD PUND WEED, CRAW	Aquatic MacroInvertebrates Observed? (Y/N)       Voucher? (Y/N)         SPIMPS       Aquatic MacroInvertebrates Observed? (Y/N)         SPIMPS       Aquat
Fish Observed? (Y/N) Voucher? (V Frogs or Taidpoles Observed? (Y/N) V ) Comments Regarding Biology: CRAWFURD, PIN BUD PUND WEED, CRAW	Aquatic MacroInvertebrates Observed? (Y/N) Y Voucher? (Y/N) SPICES DDAL CASTLES TIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): ther features of interest for site evaluation and a narrative description of the stream's location
Fish Observed? (Y/N) Voucher? (N Frogs or Tadpoles Observed? (Y/N) V Comments Regarding Biology: CRAWFUKO, PIN BUH PUND WEEO, CRAW DRAWING AND NARRA Include Important landmarks and of	Aquatic MacroInvertebrates Observed? (Y/N) Y Voucher? (Y/N) SPICES DDAL CASTLES TIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): ther.features of Interest for site evaluation and a narrative description of the stream's location
Fish Observed? (Y/N) Voucher? (N Frogs or Taippoles Observed? (Y/N) V N Comments Regarding Biology: CRAWFUKO, PIN BUH PUND WEEO, CRAW DRAWING AND NARRA Include Important landmarks and of	Aquatic MacroInvertebrates Observed? (Y/N) y Voucher? (Y/N) SPACES DDAL CASTLES TIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): ther features of interest for site evaluation and a narrative description of the stream's location RW CROP
Fish Observed? (Y/N) Voucher? (N Frogs or Taippoles Observed? (Y/N) V S Comments Regarding Biology: CRAWFUKO PIN BUH PUND WEEO CRAW DRAWING AND NARRA Include Important landmarks and of	Aquatic MacroInvertebrates Observed? (Y/N) Y Voucher? (Y/N) SPIMES DDATE CASTLES Advance of interest for site evaluation and a narrative description of the stream's location ROW CROP FLOW
Fish Observed? (Y/N) Voucher? (N Frogs or Taippoles Observed? (Y/N) V N Comments Regarding Biology: CRAWFUKO, PIN BUH PUND WEEO, CRAW DRAWING AND NARRA Include Important landmarks and of	Aquatic Macroinvertebrates Observed? (Y/N)       Voucher? (Y/N)         SPARES       SPARES         DDAL CASTLES       Castles         TTIVE DESCRIPTION OF STREAM REACH (This must be completed):         ther.features of Interest for site evaluation and a narrative description of the stream's location         RUW       RUW         FLUM       ICHETATEO
Fish Observed? (Y/N) N Voucher? (N Frogs or Tadpoles Observed? (Y/N) N Comments Regarding Biology: CRAWFURD PIN BUH TUND WIFEO CRAW DRAWING AND NARRA Include Important landmarks and of FLOW	Aquatic Macroinvertebrates Observed? (Y/N)       Voucher? (Y/N)         SPARES       SPARES         DDAL CASTLES       Castles         TTIVE DESCRIPTION OF STREAM REACH (This must be completed):         ther.features of Interest for site evaluation and a narrative description of the stream's location         RUW       RUW         FLUM       ICHETATEO
Fish Observed? (Y/N) N Voucher? (N Frogs or Taippoles Observed? (Y/N) N V Comments Regarding Biology: CRAWFURD PIN BUH TUND WIFEO CRAW DRAWING AND NARRA Include Important landmarks and of	Aquatic Macroinvertebrates Observed? (Y/N)       Voucher? (Y/N)         SPLACES         DDAL CASTLES         TTIVE DESCRIPTION OF STREAM REACH (This must be completed):         ther.features of Interest for site evaluation and a narrative description of the stream's location         RUW         FLUM         TOTOM

ORAM v. 5.0 Field Form Quantitative Rating Site: TIMBER RUAD TIL Rater(s): J. BORARDINELLI Date: WETLAND N-C J. STRATIGA-KOS .0.0 ubiotal first pa ЦЗ 0.0 Metric 5. Special Wetlands. 0,0 max 10 pts. subtotal Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erle coastal/tributary wetland-unrestricted hydrology (10) Õ Lake Erle coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. ሻሻ subtolat max 20 pts. 6a. Wetland Vegetation Communities. Vegetation Community Cover Scale Absent or comprises <0.1ha (0.2471 acres) contiguous area Score all present using 0 to 3 scale. 0 O Aquatic bed Present and either comprises small part of wetland's 0 Emergent vegetation and is of moderate quality, or comprises a a Shrub significant part but is of low quality 2 Present and either comprises significant part of wetland's Forest  $\cap$ Ч Mudflats vegetation and is of moderate quality or comprises a small Open water part and is of high quality Other 3 Present and comprises significant part, or more, of welland's vegetation and is of high quality 6b. horizontal (plan view) Interspersion. Select only one. High (5) Narrative Description of Vegetation Quality Moderately high(4) Low spp diversity and/or predominance of nonnative or low Moderate (3) disturbance tolerant native species ł Moderately low (2) Native spp are dominant component of the vegetation, mod Low (1) although nonnative and/or disturbance tolerant native spp None (0) can also be present, and species diversity moderate to 6c. Coverage of invasive plants. Refer moderately high, but generally w/o presence of rare to Table 1 ORAM long form for list. Add threatened or endangered spp or deduct points for coverage hlgh A predominance of native species, with nonnative spp Extensive >75% cover (-5) and/or disturbance tolerant native spp absent or virtually Moderate 25-75% cover (-3) absent, and high spp diversity and often, but not always, Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp -3 Nearly absent <5% cover (0) Absent (1) Mudflat and Open Water Class Quality 6d. Microtopography. Absent <0.1ha (0.247 acres) Ð Score all present using 0 to 3 scale. Low 0.1 to <1ha (0.247 to 2.47 acres) 1 b Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more Coarse woody debris >15cm (6in) 3 0  $\partial$ Standing dead >25cm (10jn) dbh Ο υ Amphibian breeding pools Microtopography Cover Scale Absent 0 Present very small amounts or if more common 1 of marginal quality 2 Present In moderate amounts, but not of highest quality or in small amounts of highest quality 3 Present in moderate or greater amounts and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

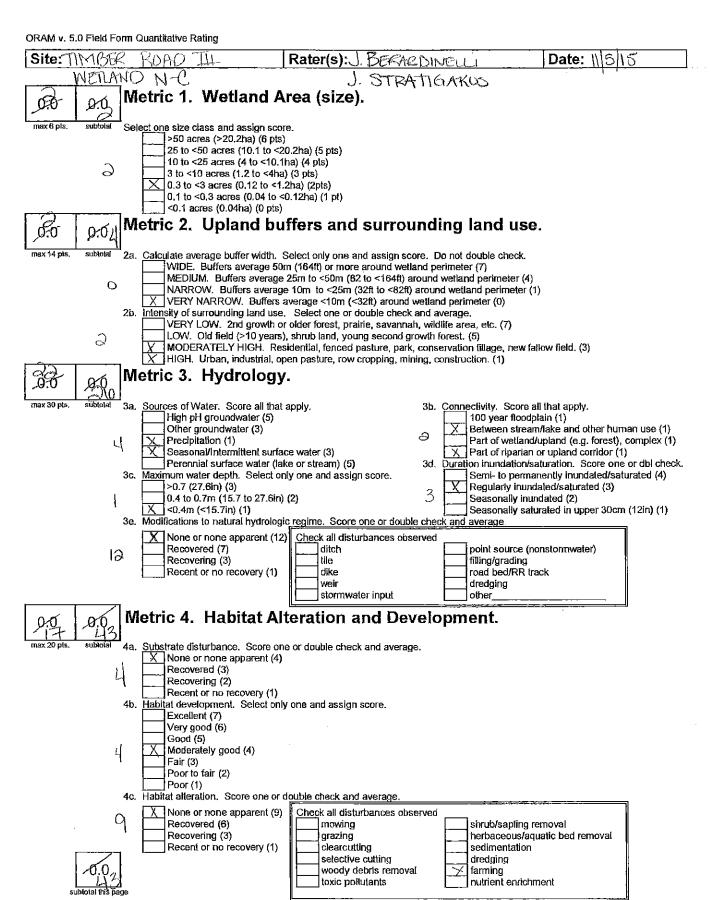
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## WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

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Project/Site: Timber Road III	City/C	County: Paulding		Sampling Date: 9/24/15	
Applicant/Owner: EDP Renewables			State: Ohio	Sampling Point: SP-NC	-1
Investigator(s): J.Berardinelli, J.Stratigako	os Sectio	Don Township Range, H			
Landform (hillslope, terrace, etc.): <u>Agricultur</u> Subregion (LRR or MLRA): <u>LRR L</u> Soil Map Unit Name: <u>Hoytville silty clay, 0</u>	ral Field Local rel Lat: <u>1345178.783</u> to 1 percent slope ( HtA)	ief (concave, convex, no	ne): <u>Concave</u> 2213.976 NWI classific	Datum: OH SP	83
Are climatic / hydrologic conditions on the site	e typical for this time of year? Y	'es No	(If no, explain in F	emarks.)	
Are Vegetation, Soil, or Hydro	ology significantly distu	bed? Are "Norma	I Circumstances"	present? Yes X No _	
Are Vegetation, Soil, or Hydro	blogy naturally problem	atic? (if needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS - Attac	h site map showing san	npling point locati	ons, transects	, important features,	etc.
Hydric Soil Present? Y		Is the Sampled Area within a Wetland? If yes, optional Wetlan	Yes <u>×</u> d Site ID: <u>Wetlan</u>		
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is requ	ired; check all that apply)		Secondary Indic	ators (minimum of two requir Cracks (B6)	<u>ed)</u>
× Surface Water (A1)	Water-Stained Leave	es (B9)	Drainage Pa		
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim L	ines (B16)	
X Saturation (A3)	Mart Deposits (B15)		Dry-Season	Water Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Od	ior (C1)	Crayfish Bu		
Sediment Deposits (B2)	Oxidized Rhizosphe			isible on Aerial Imagery (C9)	)
Drift Deposits (B3)	Presence of Reduce			Stressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reducti			Position (D2)	
Iron Deposits (B5)	Thin Muck Surface (		Shallow Aq		
Inundation Visible on Aerial Imagery (E		marks)	FAC-Neutra	aphic Relief (D4)	
Sparsely Vegetated Concave Surface	(B8)	<u> </u>			
Field Observations:	No Depth (inches): 1-	4 in			
	No $\underline{\times}$ Depth (inches):				
	No Depth (inches):		Hydrology Press	nt? Yes <u>×</u> No	
(includes capillary fringe)					
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, pr	evious inspections), if a	vailable:		
Remarks:				<u>-</u> . · -	
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**VEGETATION** – Use scientific names of plants.

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·	Abaclute	Dominant	Indicator	
Tree Stratum (Plot size:)		Dominant Species?		Dominance Test worksheet:
1	_			Number of Dominant Species 2 (A)
2				
				Total Number of Dominant Species Across All Strata:(B)
3				· · · · · · · · · · · · · · · · · · ·
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
5				
6	. <u> </u>		·	Prevalence Index worksheet:
7		·		Total % Cover of:Multiply by:
	0	= Total Co	ver	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1		<u>-</u>		FAC species x 3 = 0
2				FACU species x 4 =
				UPL species $x = 0$
3				Column Totais:0 (A) (B)
4 5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
··	0	= Total Co	- <u></u> -	✓ 2 - Dominance Test is >50%
	. <u> </u>			3 - Prevalence Index is ≤3.0 <sup>1</sup>
<u>Herb Stratum</u> (Plot size:) 1. <i>Typha angustifolia</i>	45	×	OBL	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2 Phalaris arundinacea	30	× ×	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3 4				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	75	= Total Co	over	height.
Woody Vine Stratum (Plot size;)				
1				
2				
3				Vegetation
4				Present? Yes <u>X</u> No
	0	_ = Total C	over	
Remarks: (Include photo numbers here or on a separate	sheet.)			

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Sampling Point: SP-NC-1

Hit       Matex       Redox Features       To dure       Remarks         Indices       Color (molst)       %       Color (molst)       %       To dure       Remarks         Indices       Indices       Indices       Indices       Indices       Remarks         Indices       Indices       Indices       Indices       Indices       Indices         Indices       Indices       Indices       Indices       Indices       Indices       Indices         Indices <th></th> <th>Redo</th> <th>x Features</th> <th>r or confirm t</th> <th></th> <th></th>		Redo	x Features	r or confirm t		
dric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, Let Machine Context (A10) (LRR K, L, MLRA 149B)         Histic Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)         Hydrogen Suffide (A4)       Loarny Mucky Mineral (F1) (LRR K, L)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)         Thick Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)         Sandy Redox (S5)       Redox Depressions (F8)         Stratified Layer (if observed):       Wery Shallow Dark Surface (TF12)         Other (Explain in Remarks)       Other (Explain in Remarks)         dicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.         setrictive Layer (if observed):       Yes_X         Type:       No         marks:       other NS 2/1 at surface. Appeared that manure pit runoff is diverted to				Loc <sup>2</sup>	Texture	Remarks
dric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, Histic Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Mucky Peat or Peat (S3) (LRR K, L, I         Hydrogen Suffide (A4)       Loarny Mucky Mineral (F1) (LRR K, L)       X       Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)       Polyvalue Below Surface (S9) (LRR K, L)       Y         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (F6)       Iron-Manganese Masses (F12) (LRR K, L, MLRA 144A, 145, 144         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 144         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 144         Sandy Redox (S5)       Redox Depresent, unless disturbed or problematic.         stripped Matrix (S6)       Other (Explain in Remarks)         dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strippet (inches):       Type:         Depth (inches):       No         Depth (inches):       Hydric Soil Present? Yes No<				 		
dric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, Histic Epipedon (A2)       MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Black Histic (A3)       Loarny Mucky Mineral (F1) (LRR K, L)       X       Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)       Polyvalue Below Surface (S9) (LRR K, L)       X         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (F6)       Iron-Manganese Masses (F12) (LRR K, L,         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 144         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 144         Sandy Redox (S5)       Redox Depresent, unless disturbed or problematic.         stripped Matrix (S6)       Other (Explain in Remarks)         dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         strictive Layer (If observed):       Type:         Type:       Hydric Soil Present? Yes X       No         marks:       Doil Was observed to be 10 YR 2/1 at surface. Appeared that manure pit runoff is diverted to						
dric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR R, Histic Epipedon (A2)       MLRA 149B)       2 cm Muck (A10) (LRR K, L, MLRA 149B)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Hydrogen Suffide (A4)       Loarny Mucky Mineral (F1) (LRR K, L)       X       Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)       Polyvalue Below Surface (S9) (LRR K, L)       X         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (F6)       Iron-Manganese Masses (F12) (LRR K, L,         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 144A, 145, 144         Sandy Redox (S5)       Redox Depressions (F8)       Mesic Spodic (TA6) (MLRA 144A, 145, 144         Sandy Redox (S5)       Very Shallow Dark Surface (TF12)       Other (Explain in Remarks)         dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark? Yes_X No						
Histic Epipedon (A2)       MLRA 149B)       Coast Prairie Redox (A16) (LRR K, L, R)         Black Histic (A3)       Thin Dark Surface (S9) (LRR R, MLRA 149B)       5 cm Mucky Peat or Peat (S3) (LRR K, L, I)         Hydrogen Sulfide (A4)       Loarny Mucky Mineral (F1) (LRR K, L)       X       Dark Surface (S7) (LRR K, L)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)       Polyvalue Below Surface (S8) (LRR K, L)       Polyvalue Below Surface (S8) (LRR K, L)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Thin Dark Surface (S9) (LRR K, L)       Thin Dark Surface (S9) (LRR K, L)         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       Piedmont Floodplain Soils (F19) (MLRA 144, 145, 144, Sandy Redox (S5)         Stripped Matrix (S6)       Red Dark Surface (S7) (LRR R, MLRA 149B)       Very Shallow Dark Surface (TF12)         Dark Surface (S7) (LRR R, MLRA 149B)       Other (Explain in Remarks)         dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Very Shallow Dark Surface (TF12)         Type:		n, RM≂Reduced Matrix, M	S=Masked Sand (	Grains.		
estrictive Layer (if observed): Type: Depth (inches): emarks: oil was observed to be 10 YR 2/1 at surface. Appeared that manure pit runoff is diverted to	Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A12) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	MLRA 149B Thin Dark Surf Loarny Mucky Loarny Gleyed 11) Depleted Matri Redox Dark Su Depleted Dark Redox Depress	) ace (S9) (LRR R, Mineral (F1) (LRR Matrix (F2) x (F3) urface (F6) Surface (F7)	MLRA 149B)	Coast Prairie Redox     5 cm Mucky Peat or     Som Aucky Peat or     Dark Surface (S7) (I     Polyvalue Below Su     Thin Dark Surface (S     Iron-Manganese Ma     Piedmont Floodplain     Mesic Spodic (TA6)     Red Parent Material     Very Shallow Dark S	( (A16) (LRR K, L, R) Peat (S3) (LRR K, L, R LRR K, L) Inface (S8) (LRR K, L) S9) (LRR K, L) asses (F12) (LRR K, L, I n Soils (F19) (MLRA 144 (MLRA 144A, 145, 149 I (F21) Surface (TF12)
Type:		and wetland hydrology mu	st be present, unle	ess disturbed o	r problematic.	
oil was observed to be 10 YR 2/1 at surface. Appeared that manure pit runoff is diverted to	Туре:				Hydric Soil Present?	Yes <u>×</u> No
	oil was observed to be		ace. Appeare	ed that ma	nure pit runoff is	diverted to

SITE NAME/LOCATION STREAM N-D	HHEI Score (sum of metrics 1, 2, 3) :
	RIVER BASIN MANMER GUE DRAINAGE AREA (mit) UNDERN
	COMMENTS AGRICUITURAL SINTL
	afer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
STREAM CHANNEL STREAM CHANNEL NATURAL	
1. SUBSTRATE (Estimate percent of every typ	e of substrate present. Check ONLY two predominant substrate TYPE boxes
TYPE PERCE	bstrate types found (Max of 8). Final metric score is sum of boxes A & B.   HHEI NT TYPE Metric
BLDR SLABS [16 pts]	
BÉDROCK [16 pt] 0% COBBLE (65-256 mm) [12 pts] 0%	Image: Fine DETRITUS [3 pts]     0%     Substrate       Image: CLAY or HARDPAN [0 pt]     0%     Max = 40
GRAVEL (2-64 mm) [9 pts]	MUCK [0 pts] /0 0 0%
Total of Percentages of 0.00%	(A) Substrate Percentage
Bidr Slabs, Boulder, Cobble, Bedrock 0.007 SCORE OF TWO MOST PREDOMINATE SUBSTRATE	
2. Maximum Pool Depth (Measure the maximum evaluation. Avoid plunge pools from road culver	m pool depth within the 61 meter (200 ft) evaluation reach at the time of tis or storm water pipes) (Check ONLY one box): Max = 30
22,5 - 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]
COMMENTS 3" 3"	NO WATER OR MOIST CHANNEL [0 pts]
3. BANK FULL WIDTH (Measured as the averag	MAXIMUM POOL DEPTH (centimeters):
≥ 4,0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	je of 3-4 measurements) (Check ONLY one box): Bankfull → \$ 1.0 m ; 1.5 m (> 3' 3* 4' 8') [15 pis] Width ≤ 1.0 m (<=3' 3") [5 pis] Max=30
COMMENTS (9! 7" - 4' 8") [20 pls]	
COMMENTS	AVERAGE BANKFULL WIDTH (meters):
RIPARIAN ZONE AND FLOODPLAIN Q	This information <u>must</u> also be completed UALITY なNOTE: River Left (L) and Right (R) as looking downstreamな
LR (Per Bank)	ODPLAIN QUALITY
L Wide >10m L Moderate 5-10m	Immature Forest, Shrub or Old
	<del>7 ~</del>
FLOW REGIME (At Time of Evaluation)	(Check ONLY one box):
Stream Flowing Subsurface flow with isolated pools (Inlers COMMENTS	An Maist Channel isolated pools no flow (Intermittent)
	(200 ft) of channel) (Check ONI: Y one box):
None 2 1.0 0.5 1.5	
STREAM GRADIENT ESTIMATE	

	DOWNSTREAM DESIGNATED USE(S)  WWH Name: Distance from Evaluated Stream
<u> </u>	CWH Name:
	EWH Name: 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: Wyandot PAULDINH Township / City: HABRISDIN
	MISCELLANEOUS
	Base Flow Conditions? (Y/N): Y Date of last precipitation: UNKNUMN Quantity: 0.00
	Photograph Information:
	Is the sampling reach representative of the stream (Y/N) If not, please explain:
	A UNELL SINELL.
	Additional comments/description of pollution impacts: ACIRICULTURAL SIMEU
	Performed? (Y/N):
	DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
	Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location RUW CRDPS
	The last of the second s
	VEGETATED JWITCHASS FLOW
	BEOW CATTON
	VENETATION YES 421 1
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One of metrics 1, 2, 3):         SITE NAME/LOCATION         SITE NUMBER         RIVER BASIN         MAUME         BITE NUMBER         RIVER BASIN	1
LENGTH OF STREAM REACH (ft) 5453 LAT. 41.0053 LONG. 84.740 RIVER CODE RIVER MILE DATE 11515 SCORER 3MB COMMENTS ROMENTS STREAM CHANNEL IN NONE / NATURAL CHANNEL RECOVERED RECOVERING RECOVERING RECENT OR NO RECOVERED MODIFICATIONS:	ctions
BLDR SLABS [16 pts] BOULDER (>266 mm) [16 pts] BEDROCK [16 pt] BEDROCK	HHEI Metric Points Substrate Max = 40 3 J A + B
evaluation. Avoid plunge pools from road culverts or storm water pipes)       (Check ONLY one box):         > 30 centimeters [20 pts]       > 5 cm [10 cm [15 pts]         > 22.5 - 30 cm [30 pts]       > 5 cm [5 pts]         > 10 - 22.5 cm [25 pts]       NO WATER OR MOIST CHANNEL [0 pts]         COMMENTS       0 '' 3' (o'' 3' (o'' 4' = 10.4)         MAXIMUM POOL DEPTH (centimeters):       30         BANK FULL WIDTH (Measured as the average of 3-4 measurements)       (Check ONLY one box):         > 4.0 meters (> 13) [30 pts]       > 10 m = 1.5 m (> 3' 3* 4' 8'') [15 pts]	oool Depth Max = 30 0 Bankfull Width Max≍30
This Information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY         ARIPARIAN WIDTH       FLOODPLAIN QUALITY         L       R         (Per Bank)       L         Wide >10m       L         Moderate 5-10m       Mature Forest, Wetland         Moderate 5-10m       Immature Forest, Shrub or Old         Narrow <5m	
Image: Construction of the second	and a second second second second second second second second second second second second second second second s

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Secondaria (Contractor) (Secondaria)

QHEI PERFORMED?	Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DES	
WWH Name:	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name: 1	
·	COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
SGS Quadrangle Name:	ANNE NRCS Soil Map Page: NRCS Soil Map Stream Order
ounty: Wyandot PAULD	DIN 12 Township / City: HARRED
MISCELLANEOUS	· · · · ·
ase Flow Conditions? (Y/N):	Y Date of last precipitation: UNKNDWN Quantity: 0.00
· · · · · · · · · · · · · · · · · · ·	
holograph information:	(arony /% open): 0% 100%
ievated Turbldity? (Y/N):	
ere samples collected for wat	ter chemistry? (Y/N); Y (Note lab sample no. or id. and attach results) Lab Number:
ield Measures: Temp (°C)	Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
the sampling reach represent	tative of the stream (Y/N)
<u></u>	notrollides imports: ROADSIDE AGRICULTIKAL DRAIMAG
dditional comments/description	on of pollution impacts; KDADSIDE AGRICULTIKAL DRAIGAT
oniments regarding biology.	
DRAWING AN	ND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
include Important lands	marks and other features of Interest for site evaluation and a narrative description of the stream's local
	ROW ORDP Z
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OPPOSED Primary Headwater Habitat Evaluation Form       1         HHEI Score (sum of metrics 1, 2, 3):       1         SITE NAME/LOCATION       STREAM         SITE NUMBER       RIVER BASIN         SITE NUMBER       RIVER BASIN         LENGTH OF STREAM REACH (ft)       1         SITE NUMBER       COMMENTS         ACR I CUCIURAL       DITCH
DATE <u>IUDICA</u> SCORER <u>LUNIO</u> COMMENTS <u>LACKICUCIURAL</u> DITCH NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL INONE / NATURAL CHANNEL IRECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS:
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.       HHE!         TYPE       BLOR SLABS [16 pts]       PERCENT       TYPE       SILT [3 pt]       PERCENT       Wetric Points         SOULDER (>256 mm) [16 pts]       0%       0%       EAF PACK/WOODY DEBRIS [3 pts]       0%       Substrate Max = 40         BEDROCK [16 pt]       0%       0%       CLAY or HARDPAN [0 pt]       0%       0%       Substrate Percentage       0%         GRAVEL (2-64 mm) [9 pts]       0%       0%       0%       0%       0%       0%       0%       0%       0%         Total of Percentages of Bldr Stabs, Boulder, Cobble, Bedrock       0.00%       (A)       Substrate Percentage       0%       (B)       A + B         SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:       0       TOTAL NUMBER OF SUBSTRATE TYPES:       0       X + B
<ul> <li>2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):</li> <li>3. 30. centimeters [20 pts]</li> <li>22.5 - 30 cm [30 pts]</li> <li>22.5 cm [25 pts]</li> <li>25 cm [10 cm [15 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>20 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [20 pts]</li> <li>21 cmtmeters [21 cmt</li></ul>
This information must also be completed         RIPARIAN ZONE AND FLOODPLAIN QUALITY the NOTE: River Left (L) and Right (R) as looking downstream to the NOTE: River Left (L) and Right (R) as looking downstream to the NOTE: River Left (L) and Right (R) as looking downstream to the NOTE: River Left (L) and Right (R) as looking downstream to the NOTE: River Left (L) and Right (R) as looking downstream to the NOTE: River Left (L) and Right (R) as looking downstream to the NOTE: River Left (L) and Right (R) as looking downstream to the NOTE: River Left (L) and Right (R) as looking downstream to the NOTE: River Left (L) and Right (R) as looking downstream to the Note: The Note to the None t
FLOW REGIME (At Time of Evaluation) (Check ONLY one box);         Stream Flowing         Subsurface flow with isolated pools (Interstitial)         COMMENTS         SINUOSITY (Number of bends per 61 m (200 ft) of channel)         (Check ONLY one box);         None         0.5
STREAM GRADIENT ESTIMATE Flat (0.5 flat (0.5 flat io Moderate I Moderate (2 fl/100 fl) I Moderate to Severe I Severe (10 fl/100 fl) Colober 24, 2002 Revision. PHWH Form Page - 1

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October 24, 2002 Revision

QHEI PERFORM	ED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
	DESIGNATED USE(S)
	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	
MAPPING: ATT	ACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
SGS Quadrangle Name:	
ounty: Wyandot PA	Township/City: HARRISON
MISCELLANEO	US
	VINTENDINAL OUT
ase Flow Conditions? (Y/ [	
hotograph Information: _(	
levated Turbidity? (Y/N):	
/ere samples collected fo	or water chemistry? (Y/N): Y (Note lab sample no, or id, and attach results) Lab Number:
: leld Measures: Temp	(°C) Dissolved Oxygen (mg/) pH (S.U.) Conductivity (µmhos/cm)
	resentative of the stream (Y/N) Y N If not, please explain:
s the sampling leach repr	
<u></u>	As a superior Destruction
dditional comments/desc	cription of pollution impacts: <u>468601708AC D2ANACE</u>
DITCH	
Fish Observed? (Y/N):	
Comments Regarding Bio	3logy:
······································	
DRAWING	G 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 locatio
	ROW CROP
	//////////
	FUDA
FLOW	
P	RUN CROP
NKS	

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This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

12/8/2015 3:35:59 PM

in

Case No(s). 15-1737-EL-BTX

Summary: Application Exhibit F (Delineation Data Forms) electronically filed by Mr. Michael J. Settineri on behalf of Paulding Wind Farm III LLC