VEGETATION – Use scientific names of plants.

Absolute Dominant Indicator)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/E
Prevalence Index worksheet:
= Total Cover OBL species X1 =
) FACVV species X2
TAC species xo
FACO species X4
UPL species x 5 =0 Column Totals:0 (A)0 (B
Column Totals: (A) (B
Prevalence Index = B/A =
Hydrophytic Vegetation Indicators:
1 - Rapid Test for Hydrophytic Vegetation
4 2 - Dominance Test is >50%
0 = Total Cover
)
40 X FACW Problematic Hydrophytic Vegetation¹ (Explain)
10 OBL
10 OBL ho present uples dicturbed or problematic
be present, unless disturbed or problematic. 5 UPL
Definitions of Vegetation Strata:
Tree – Woody plants 3 in. (7.6 cm) or more in diameter
at breast height (DBH), regardless of height.
Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
Woody vines – All woody vines greater than 3.28 ft in
height.
= Total Cover
)
Hydrophytic
Vegetation Present? Yes X No
•
or on a separate sheet.)
= Total Cover or on a separate sheet.)

Profile Desc	ription: (Describe t	o the depth			or or confirm	the absence of indicat	tors.)
Depth	Matrix Color (moist)		Redo Color (moist)	x Features	Loc²	Texture	Remarks
(inches) 0-12	10YR 3/1	100	COIOI ((floist)		LUC	Clay	Moist
	1011(0/1						
						*	
					_ -		
	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Masked Sand (Grains.	² Location: PL=Pore	e Lining, M=Matrix. ematic Hydric Soils ³ :
Hydric Soil			Pohazalue Relov	v Surface (S8) (L	RR R		(LRR K, L, MLRA 149B)
Histosol	(A1) pipedon (A2)	_	MLRA 149B)		ixix ix,		dox (A16) (LRR K, L, R)
Black Hi				ce (S9) (LRR R, l			t or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_		lineral (F1) (LRR	K, L)	Dark Surface (S7	7) (LRR K, L) Surface (S8) (LRR K, L)
	l Layers (A5) I Below Dark Surface	(Δ11)	Loamy Gleyed IDepleted Matrix				e (S9) (LRR K, L)
	rk Surface (A12)		_ Redox Dark Sui				Masses (F12) (LRR K, L, R)
Sandy M	lucky Mineral (S1)		_ Depleted Dark \$				olain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress	ons (F8)			A6) (MLRA 144A, 145, 149B)
	edox (S5)					Red Parent Mate	rk Surface (TF12)
	Matrix (S6) face (S7) (LRR R, M	LRA 149B)				Other (Explain in	
						•	
	hydrophytic vegetati	on and wetla	ind hydrology mus	t be present, unle	ess disturbed o	or problematic.	<u> </u>
	.ayer (if observed):						
Type:	1 N.		_			Hydric Soil Present?	Yes × No
Depth (inc	nes):						
Remarks:							
							•

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Timber Road III	City/County: Pa	ulding	_ Sampling Date: <u>9/22/15</u>
Applicant/Owner: EDP Renewables		State: Ohio	Sampling Point: SP-AA-1
Investigator(s): J. Stratigakos, J.Berardinelli	Section, Townsh	p, Range: Harrison Twp	
Landform (hillslope, terrace, etc.): Riparian Fringe	Local relief (concave	e, convex, none): Concave	Slope (%):
Subregion (LRR or MLRA): LRR L		Long: 5308370.6	Datum: OH SP 83
Soil Map Unit Name: Hoytville silty clay, 0 to 1 pe		NWI classifi	
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes X	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology			
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing sampling po	int locations, transects	s, important features, etc.
×	Is the Sar	npled Area	
Hydrophytic Vegetation Present? Hydric Soil Present? Yes X Yes X	'\'\' ,		No
Hydric Soil Present? Wetland Hydrology Present? Yes X Yes X	No No If ves. opt	onal Wetland Site ID: Wetlar	nd AA
Remarks: (Explain alternative procedures here or in		Onal Victoria One ID.	
Memaria. (Explain alternative procedures have or in	· · · · · · · · · · · · · · · · · · ·		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface Soil	Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	' '
	_ Aquatic Fauna (B13)	Moss Trim L	
	_ ·		Water Table (C2)
· · ·	_ Marl Deposits (B15)	Crayfish Bui	1
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	_ Hydrogen Sulfide Odor (C1)		risible on Aerial Imagery (C9)
	Oxidized Rhizospheres on Living		Stressed Plants (D1)
1	Presence of Reduced Iron (C4)		
	Recent Iron Reduction in Tilled S	• •	
	_ Thin Muck Surface (C7)	Shallow Aqu	· · ·
	Other (Explain in Remarks)	× FAC-Neutra	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		- AC-Neulla	T Test (D5)
Field Observations:	_ ,, , ,		
	Depth (inches):		
Water Table Present? Yes No X			
Saturation Present? Yes X No	Depth (inches): Surface	Wetland Hydrology Prese	nt? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	well aerial photos previous inspe	ctions) if available	
Describe Recorded Data (stream gauge, monitoring	well, aeriai priotos, previous irispe	otions), it available.	
Remarks:			
			ľ

Sampling Point: SP-AA-1 VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: ___ (A) Total Number of Dominant 2 (B) Species Across All Strata: Percent of Dominant Species 100 That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 0 = Total Cover OBL species _____ x 1 = ____ FACW species _____ x 2 = ___ Sapling/Shrub Stratum (Plot size: _____) FAC species _____ x 3 = ____ FACU species ____ x 4 = _ 0 UPL species _____ x 5 = ____ Column Totals: _____ (A) ____ (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 4 2 - Dominance Test is >50% 0 = Total Cover ___ 3 - Prevalence Index is ≤3.0¹ Herb Stratum (Plot size: _____) ___ 4 - Morphological Adaptations¹ (Provide supporting 1 Phalaris arundinacea 50 **FACW** data in Remarks or on a separate sheet) 2. Carex sp. 40 Problematic Hydrophytic Vegetation¹ (Explain) **FACW** 3. Juncus effusus 10 OBL ¹Indicators 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:** Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. 115 = Total Cover Woody Vine Stratum (Plot size: _____) Hydrophytic Vegetation Yes _ X _ No ____ Present? 0 = Total Cover Remarks: (Include photo numbers here or on a separate sheet.)

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the i	indicator	or confirm	the absence of in	ndicators.)		
Depth	Matrix	0/		K Feature:	S Type ¹	Loc²	Texture	Rer	marks	
(inches)	Color (moist)		Color (moist)			LOC	Clay		/loist	
0-12	10YR 3/1	100							10131	
						_				
				`						
			· · · · · · · · · · · · · · · · · · ·							
										
										
							<u> </u>			
				 						
	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains.		=Pore Lining,		
Hydric Soil I							Indicators for			
Histosol		-	Polyvalue Below	/ Surface	(S8) (LRF	RR,		(A10) (LRR K rie Redox (A16		
	ipedon (A2)		MLRA 149B) Thin Dark Surfa	co (SO) (I	DD D MI	RΔ 149R)		y Peat or Peal		
Black His	n Sulfide (A4)	-	Loamy Mucky M					ce (S7) (LRR		, _,,
	Layers (A5)	_	Loamy Gleyed N			, –,		Below Surface		RR K, L)
	Below Dark Surface	(A11) _	Depleted Matrix		,			Surface (S9) (I		
× Thick Da	rk Surface (A12)	_	Redox Dark Sur					anese Masses		
	ucky Mineral (S1)	_	Depleted Dark S		7)					(MLRA 149B)
	leyed Matrix (S4)	-	_ Redox Depressi	ons (F8)				dic (TA6) (MLI		A, 145, 149B)
	edox (S5)							t Material (F21 ow Dark Surfa		2)
	Matrix (S6) face (S7) (LRR R, M	I DA 440D\						lain in Remark		-)
Dark Sur	lace (37) (LKK K, III	LKA 1480)					0.1101 (12.14)		,	
3Indicators of	hydrophytic vegetati	on and wetl	and hydrology must	t be prese	ent, unless	disturbed	or problematic.			
	ayer (if observed):									
Type:										
Depth (inc	hes)·						Hydric Soil Pres	sent? Yes	<u>×</u>	No
Remarks:										
Remains.										
	•									

ChicEPA

Primary Headwater Habitat Evaluation Form

25

Severe (10 f/100 ft)

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION Acean DRAINAGE AREA (mi²) 0,0000000 RIVER BASIN MALIMULE SITE NUMBER LENGTH OF, STREAM REACH (N) 7.00 LAT. 4.1995 160 LONG. -917-980 RIVER CODE RIVER MILE ___COMMENTS_WILDCAT_CRETK DATE 10/27/15 SCORER KAZ NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions □ NONE / NATURAL CHANNEL □ RECOVERED □ RECOVERING/ RECENT OF NO RECOVERY STREAM CHANNEL MODIFICATIONS: SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric PERCENT **Points** SILT [3 pl] BLDR SLABS [18 pts] LEAF PACKWOODY DEBRIS [3 pts] 00 BOULDER (>256 mm) [16 pts] Substrate FINE DETRITUS [3 pts] 00 BEDROCK [16 pt] Max = 40 CLAY OF HARDPAN [0 pt] COBBLE (65-256 mm) [12 pts] 00 GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] (B) Total of Percentages of A+B Bidr Slabs, Boulder, Cobble, Bedrock TOTAL NUMBER OF SUBSTRATE TYPES: SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Pool Depth Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of 2. (Check ONLY one box): Max = 30 evaluation. Avoid plunge pools from road culverts or storm water pipes) > 30 centimeters [20 pts] 8 > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] <5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts] П MAXIMUM POOL DEPTH (centimeters): COMMENTS (Check ONLY one box): Bankfuli BANK FULL WIDTH (Measured as the average of 3-4 measurements) > 1.0 m = 1.5 m (> 3'3" - 4'8") [15 pts] Width Max=30 ≤ 1.0 m (≤ 3° 3°) [5 pts] AVERAGE BANKFULL WIDTH (meters) COMMENTS_ This information must also be completed ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN ZONE AND FLOODPLAIN QUALITY FLOODPLAIN QUALITY RIPARIAN WIDTH (Most Predominant per Bank) (Per Bank) Conservation Tiliage ПП 00 Mature Forest, Wetland Wide >10m Immature Forest, Shrub or Old Urban or Industrial Moderate 5-10m Open Pasture, Row □□K Narrow <5m Residential, Park, New Field Crop Fenced Pasture Mining or Construction None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (intermittent) Stream Flowing Œ. Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): 3.0 1.0 2.0 None >3 2.5 0.5 STREAM GRADIENT ESTIMATE

Moderate to Severe

☐ Moderate (2 n/100 n)

Elat (0.5 n/100 n)

☐ Flat to Moderate

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes No QHEI Score(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) □ WWH Name: □ Distance from Evaluated Stream □ Distance from E
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: Payal, Ohlo NRCS Soil Map Page: NRCS Soil Map Stream Order County: Payal May
County: Paulding Township/City: Harrison Tup.
Base Flow Conditions? (Y/N): A Date of last precipitation: LANK: Quantity: Photograph Information:
Elevated Turbidity? (Y/N): Canopy (% open):
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts: Agaica tural dairney diffeh
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) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Comments Regarding Biology: // // // // // Comments Regarding Biology: // // // // // // // // // // //
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location White the ag. Frein Will 5 (2552) (Garrier)
harrow grassed reporter
Arethre as Freld

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

SITE NAME/LOCATION STOP	M DDD-1	
SITE NUMBER	RIVER BASIN MAUMU DRAINAGE AREA (m²) 0	
I I tomore the same	LAT. 41.091(63 LONG. 34.7(0530) RIVER CODE RIVER MILE	
DATE O DATE Complete All Items On This Form	COMMENTS	ctions
and the second of the control of the	URAL GHANNEL I REGOVERED I RECOVERING/ RECENT OR NO RECO	eleksára között
MÖDIFICATIONS;	UNA CIPANIEL DIRECTION DI TRESTANIEL DIRECTION DE L'ASSESSE	
	A Charle ON When mand any habit a photosis TVOT house I	
 SUBSTRATE (Estimate percent of ever (Max of 40). Add total number of significa 	ry type of substrate present. Check ONLY two predominant substrate TYPE boxes and substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI Metric
TYPE DD BLDR SLABS [16 pts] PE	ERCENT TYPE PERCENT	Points
☐ ☐ BOULDER (>266 mm) [16 pts]	LEAF PACKWOODY DEBRIS [3 pts]	Substrate
□ □ COBBLE (65-256 mm) [12 pts] _	CLAY OF HARDPAN (0 pt)	Max = 40
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ SAND (<2 mm) [6 pts]		.5
Total of Percentages of	(A) (B)	A+B
Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBST	TOTAL NUMBER OF SUBSTRATE TYPES:	
1		Pool Depth
evaluation. Avoid plunge pools from road > 30 centimeters [20 pts]	culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 22.5 = 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	< 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
a panterilla Minata Mannied on the	Chack ON V one hox):	Bankfull
3. BANK FULL WIDTH (Measured as the a	Chack ONI V one hox):	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m > 4.0 m (> 9' 7" = 13) [25 pts] > 1.5 m = 3.0 m (> 4' 8" = 9' 7") [20 pts]	average of 3-4 measurements) (Check <i>ONLY</i> one box): > 1.0 m - 1.5 m (> 3·3° - 3·3°) [15 pts] \(\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Width
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):	Width
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] COMMENTS	Average of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3'.3" \ 4'.8") [15 pts]	Width
3. BANK FULL WIDTH (Measured as the 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 <i>ONLY</i> one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (< 3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters)	Width
3. BANK FULL WIDTH (Measured as the a	Average of 3-4 measurements) (Check ONLY one box):	Width
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] COMMENTS RIPARIAN ZONE AND FLOODPI RIPARIAN WIDTH L R (Per Bank)	Average of 3-4 measurements) (Check ONLY one box):	Width
3. BANK FULL WIDTH (Measured as the at the second s	Average of 3-4 measurements) (Check ONLY one box):	Width
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts]	Average of 3-4 measurements) (Check ONLY one box):	Width
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts]	AVERAGE BANKFULL WIDTH (meters) This information must also be completed LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Mature Forest, Shrub or Old Residential, Park, New Field Fenced Pasture Mining or Construction	Width
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts]	AVERAGE BANKFULL WIDTH (meters) LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY LR (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Mature Forest, Wetland Residential, Park, New Field Residential, Park, New Field Penced Pasture Most Channel, isolated pools, no flow (Intermittent)	Width
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] COMMENTS RIPARIAN ZONE AND FLOODPI RIPARIAN WIDTH L R (Per Bank) Wide > 10 m Moderate 5-10 m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation of Evaluati	AVERAGE BANKFULL WIDTH (meters) This information must also be completed LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Mature Forest, Shrub or Old Mature Forest, Shrub or Old Meter Forest, Shrub or Old Meter Forest, Shrub or Old Meter Forest, Shrub or Old Mining or Construction Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	Width
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] COMMENTS RIPARIAN ZONE AND FLOODPI RIPARIAN WIDTH L R (Per Bank) Wide > 10 m Moderate 5-10 m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation of Evaluati	AVERAGE BANKFULL WIDTH (meters) This information must also be completed LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Mature Forest, Shrub or Old Mature Forest, Shrub or Old Meter Field Residential, Park, New Field Residential, Park, New Field Fenced Pasture Mining or Construction Moist Channel, isolated pools, no flow (intermittent) Dry channel, no water (Ephemeral)	Width

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):
GHEI PERFORMED? - Yes X.No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
WWH 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: 1 WW Oh NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Paralolone Township/City. Harry Son Tup.
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation: Quantity: Quantity:
Photograph information:
Elevated Turbidity? (Y/N): Canopy (% open):
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) / If not, please explain:
Additional comments/description of pollution impacts: Description D
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
Vesturine Spisse A

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

SITE NAME/LOCATIONSITE NUMBER	$\Lambda\Lambda$	lele
LENGTH OF STREAM REACH (ft) 200	LAT. 41.130408 LONG. 84. 710504 RIVER CODE RIVER MILE	
DATE 10/07/15 SCORER KAT	COMMENTS	
NOTE: Complete All Items On This Form	n - Refer to "Field Evaluation Manual for Ohio's FHWH Streams" for Instr	uctions
STREAM CHANNEL S NONE (NATI	TURAL CHANNEL I RECOVERED I RECOVERING RECENT OR NO RECO	VERY
MODIFICATIONS;		
 SUBSTRATE (Estimate percent of ever (Max of 40). Add total number of significal 	ry type of substrate present. Check ONLY two predominant substrate TYPE boxes ant substrate types found (Max of 8), Final metric score is sum of boxes A & B.	HHEI
TYPE PE	ERCENT TYPE PERCENT	Metric Points
☐ ☐ BOULDER (>256 mm) [16 pts]	LEAF PACKWOODY DEBRIS [3 pts]	Substrate
☐ ☐ BEDROCK [16 pt]	OO CLAY OF HARDPAN (0 P)()	Max = 40
		15
☐ SAND (<2 mm) [6 pts]	C ARTIFICIAL [3 pls]	
Total of Percentages of (Bidr Slabs, Boulder, Cobble, Bedrock	(A) 7	A+B
SCORE OF TWO MOST PREDOMINATE SUBST	TRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	
2. Maximum Pool Depth (Measure the ma.	aximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road > 30 centimeters [20 pts]	iculverts or storm water pipes) (Check ONLY one box):	Max = 30
	☐ <5 cm [5 pts]	25
2 > 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pis]	Same 1
COMMENTS	MAXIMUM POOL DEPTH (centimeters): ************************************	
3. BANK FULL WIDTH (Measured as the a	average of 3-4 measurements) (Check ONLY one box):	Bankfull Width
3. BANK FULL WIDTH (Measured as the a	average of 3-4 measurements) (Check <i>ONLY</i> one box):	Bankfull Width Max=30
3, BANK FULL WIDTH (Measured as the a > 4,0 meters (> 137) [30 pts] > 3.0 m > 4.0 m (> 9 7" - 137) [25 pts] > 1.5 m - 3.0 m (> 4 8" - 9 7") [20 pts]	average of 3-4 measurements) (Check <i>ONLY</i> one box): > 1.0 m = 1,5 m (= 3'3'-4'8') [15 pts] \(\leq 1.0 m (\leq 3'3') [5 pts] \)	Width
3, BANK FULL WIDTH (Measured as the a > 4,0 meters (> 137) [30 pts] > 3.0 m > 4.0 m (> 9 7" - 137) [25 pts] > 1.5 m - 3.0 m (> 4 8" - 9 7") [20 pts]	average of 3-4 measurements) (Check <i>ONLY</i> one box):	Width Max=30
3, BANK FULL WIDTH (Measured as the a > 4,0 meters (> 137) [30 pts] > 3.0 m > 4.0 m (> 9 7" - 137) [25 pts] > 1.5 m - 3.0 m (> 4 8" - 9 7") [20 pts]	average of 3-4 measurements) (Check <i>ONLY</i> one box): > 1.0 m ÷ 1.5 m (> 3 3" - 3" 8") [15 pte] ≤ 1.0 m (≤ 3 3") [5 pts] AVERAGE BANKFULL WIDTH (meters)	Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m + 4.0 m (> 9 7" + 13) [25 pts] > 1.5 m - 3.0 m (> 4 8" - 9 7") [20 pts] COMMENTS	average of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3'3" - 3'8") [15 pts] ≤ 1.0 m (≤ 3'3") [5 pts] AVERAGE BANKFULL WIDTH (meters) This information must also be completed LAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★	Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m + 4.0 m (> 9 7" + 13) [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	average of 3-4 measurements) (Check ONLY one box): > 1.0 m = 1.5 m (> 3'3" - 3'8") [15 pts] ≤ 1.0 m (≤ 3'3") [5 pts] AVERAGE BANKFULL WIDTH (meters) This information must also be completed LAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ FLOODPLAIN QUALITY	Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m + 4.0 m (> 9 7" 13) [25 pts] > 1.5 m - 3.0 m (> 4" 8" - 9" 7") [20 pts] COMMENTS	average of 3-4 measurements) (Check ONLY one box): > 1.0 m -1.5 m (2.3'3" - 3'8") (15 pts)	Width Max=30
3, BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m + 4.0 m (> 9 7" + 13) [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH L R (Per Bank)	Average of 3-4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m + 4.0 m (> 8 7" + 13) [25 pts] > 1.5 m - 3.0 m (> 4" 8" - 9" 7") [20 pts] COMMENTS	average of 3-4 measurements) (Check ONLY one box):	Width Max=30
3, BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m = 4.0 m (> 9 7"=13) [25 pts] > 1.5 m = 3.0 m (> 4 8" - 9 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH L R (Per Bank)	AVERAGE BANKFULL WIDTH (meters) This information must also be completed LAIN QUALITY TOODPLAIN QUALITY R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Shrub or Old Pasidantial Park New Field Check ONLY one box): (Check ONLY one box): (APP 15 pts) AVERAGE BANKFULL WIDTH (meters) AVERAGE BANKFULL WIDTH (meters) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row	Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m + 4.0 m (> 8 7 - 13) [25 pts] > 1.5 m - 3.0 m (> 4 8" - 9 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH L R (Per Bank)	average of 3-4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m + 4.0 m (> 8 7' - 13) [25 pts] > 1.5 m - 3.0 m (> 4' 8' - 9' 7') [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH L R (Per Bank) Wide > 10 m Moderate 5-10 m Narrow < 5 m None COMMENTS FLOW REGIME (Af Time of Evalue) Stream Flowing	AVERAGE BANKFULL WIDTH (meters) This information must also be completed LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY I R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Shrub or Old Immature Forest, Shrub or Old Fleid Residential, Park, New Field Residential, Park, New Field Residential, Park, New Field Mining or Construction Wation) (Check ONLY one box): Most Channel, isolated pools, no flow (Intermittent)	Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m = 4.0 m (> 8 7 = 13) [25 pts] > 1.5 m = 3.0 m (> 4 8" = 9 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH L R (Per Bank) Wide > 10 m Moderate 5-10 m Narrow < 5 m None COMMENTS FLOW REGIME (At Time of Evalue)	AVERAGE BANKFULL WIDTH (meters) This information must also be completed LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY I R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Shrub or Old Immature Forest, Shrub or Old Fleid Residential, Park, New Field Residential, Park, New Field Residential, Park, New Field Mining or Construction Wation) (Check ONLY one box): Most Channel, isolated pools, no flow (Intermittent)	Width Max=30
3, BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m > 4.0 m (> 9.7"-13) [25 pts] > 1.5 m - 3.0 m (> 4'8"-9'7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH L. R. (Per Bank) Wide > 10 m Moderate 5-10 m Narrow < 5m None COMMENTS FLOW REGIME (Af Time of Evalue Stream Flowing Subsurface flow with isolated pools COMMENTS	AVERAGE BANKFULL WIDTH (meters) This Information must also be completed LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream LAIN QUALITY LA (Most Predominant per Bank) Residential, Park, Wetland LAIN Conservation Tillage Immature Forest, Shrub or Old LAIN QUALITY Conservation Tillage Immature Forest, Wetland LAIN QUALITY LA (Most Predominant per Bank) Residential, Park, New Field Crop Crop Mining or Construction Mining or Construction Mining or Construction Lation) (Check ONLY one box): Molst Channel, isolated pools, no flow (Intermittent) Cryp Channel, no water (Ephemeral)	Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m > 4.0 m (> 8 7 - 13) [25 pts] > 1.5 m - 3.0 m (> 4 8" - 9 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH L R (Per Bank) Wide > 10 m Moderate 5-10 m Narrow < 5 m None COMMENTS FLOW REGIME (At Time of Evalue Stream Flowing Subsurface flow with isolated pools COMMENTS SINUOSITY (Number of bends per None	average of 3-4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m > 4.0 m (> 9.7"-13) [25 pts] > 1.5 m - 3.0 m (> 4.8"-9"7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH L. R. (Per Bank) Wide > 10 m Moderate 5-10 m Narrow < 5m None COMMENTS FLOW REGIME (At Time of Evaluestream Flowing) Subsurface flow with isolated pools COMMENTS SINUOSITY (Number of bends per	average of 3-4 measurements) (Check ONLY one box):	Width Max=30

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):
QHEI PERFORMED? - TYES No QHEI Score(If Yes, Altach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
WAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: NRCS Soll Map Stream Order NRCS Soll Map Stream Order
County: Tacalding Township/City: 1971 500.
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation: A W. Quantity:
Elevated Turbidity? (Y/N): Canopy (% ореп): ДСО
Were samples collected for water chemistry? (Y/N); (Note lab sample no. or td. and attach results) Lab Number;
Fleld Measures: Temp (°C) Dissolved Oxygen (mg/l)pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts: 1200155de C5 (EC) PUTAL ASULVAGO AFACE
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) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology; Array L
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 West Reach Channel
· Market and the state of the s
FLOW > Wir Maring Stees Seed Income WW
Very naway 5-2155e Abank
Arthur as. land

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

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2					e e	

SITE NAMELOCATION TO CAM GOOT A	ŧ
SITE NUMBER PLANER PASIN MACHINEL DRAINAGE AREA (m/2) 1.04	
LENGTH OF STREAM REACH (#) ZOC LAT.41.13/3000 LONG-84.793017 RIVER CODE RIVER MILE	
DATE 10/37/15 SCORER KAC COMMENTS PRIVATO DITCH	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions	
STREAM CHANNEL ONO NO NO RECOVERY	
MODIFICATIONS:	
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT PERCENT PERCENT PERCENT PERCENT	ic
BLDR SLABS [16 pts] SILT [3 pt] Point	S
BOULDER (>256 mm) [16 pts] LEAF PACKWOODY DEBRIS [3 pts] Substra BEDROCK [16 pt] FINE DETRITUS [3 pts] Max = 4	
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt]	j.
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts]	
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock (A) 3 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	Pier
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth (New road culvette or storm water pipes). (Check ONLY one hox):	
> 30 centimeters [20 pts]	
> 22.5 - 30 cm [30 pts]	
COMMEN IS REACHINGS FOOL DESCRIPTIONS	
3, BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Bankfu San	
□ >3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] □ ≤ 1.0 m (≤ 3' 3") [5 pts] Max=3(<u>0</u>
> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	
COMMENTSAVERAGE BANKFULL WIDTH (maters)	
This information must also be completed	استعيي
RIPARIAN ZONE AND FLOODPLAIN QUALITY 公NOTE: River Left (L) and Right (R) as looking downstream公	
RIPARIAN WIDTH FLOODPLAIN QUALITY I. R (Per Bank) I. R (Most Predominant per Bank) I. R	
☐ ☐ Wide >10m ☐ ☐ Mature Forest, Welland ☐ ☐ Conservation Tillage	
Moderate 5-tom DD Field Field	
☐ Narrow <5m ☐ ☐ Residential, Park, New Field ☐ ☐ Open Pasture, Row Crop	
None	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box); Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 1.0 2.0 3.0 3.0 0.5 1.5 2.5 3.3	
STREAM GRADIENT ESTIMATE STREAM GRADIENT ESTIMATE Moderate (2 M/100, n)	

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes P No QHEI Score(If Yes, Atlach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: NRCS Soll Map Page: NRCS Soll Map Stream Order
County: Tauldira Township/City: Hawson Tup.
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation: Cuantity:
Photograph Information: 7e5
Elevated Turbidity? (Y/N): Canopy (% open):
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or ld. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts: 120a/67de agaicy/dural Asalmane della.
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 sheels from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Comments Regarding Blology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
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ChioFFA Primary Headwater Habitat Evaluation Form

	HHEI SCORE (sum of metrics 1, 2, 3):				
SITE NUMBER	RIVER BASIN MANAMER DRAINAGE AREA (mis)	.]_			
DATE 10/28/15 SCORER KAZ	LAT. 41. 0931088 LONG, 94.755001 RIVER CODE RIVER MILE COMMENTS				
	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr				
STREAM CHANNEL ON NONE / NA' MODIFICATIONS:	TURAL CHANNËL 🗍 RECOVERED 🗍 RECOVERING 💆 RECENT OR NO RECO	OVERY			
(Max of 40). Add total number of signific	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes and substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI Metric			
BLDR SLABS [16 pts]	ERCENT TYPE PERCENT SILT [3 pt]	Points			
☐ ☐ BOULDER (>256 mm) [16 pts] _	LEAF PÁCKWOODY DEBRIS [3 pts]	Substrate			
OBBLE (65-256 mm) [12 pts]	CLAY OF HARDPAN [0 pt]	Max = 40			
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts]		5			
SAND (<2 mm) [6 pts]					
Bidr Slabs, Boulder, Cobbie, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS		A+B			
	eximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth			
> 30 centimeters [20 pts]	d culverts or storm water pipes) (Check ONLY one box): > 5 cm - 10 cm [15 pts]	Max = 30			
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	< 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	123			
COMMENTS	MAXIMUM POOL DEPTH (centimeters):				
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	average of 3-4 measurements) (Check ONLY one box):	Bankfull Width			
> 3.0 m - 4.0 m (> 9'7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4'8" - 9'7") [20 pts]	☐ ≤ 1.0 m (≤ 3'3") [5 pts]	Max=30			
	AVERAGE BANKFULL WIDTH (meters)	20			
This information <u>must</u> also be completed RIPARIAN ZONE AND FŁOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆					
RIPARIAN WIDTH	FLOODPLAIN QUALITY				
LR (Per Bank) ☐ Wide >10m	L R (Most Predominant per Bank) L R Mature Forest, Wetland				
☐ ☐ Moderate 5-10m	☐ ☐ Immature Forest, Shrub or Old ☐ ☐ Urban or Industrial				
ে⊈.☐ Narrow <5m	Crop Pasture, Row Crop				
O D None	Fenced Pasture				
FLOW REGIME (At Time of Evalued Stream Flowing Subsurface flow with isolated pool COMMENTS	Moist Channel, isolated poels, no flow (Intermittent)	-			
SINUOSITY (Number of bends pe None 0.5	er 61 m (200 ft) of channel) (Check ONLY one box): 1.0				
STREAM GRADIENT ESTIMATE Gradient (0.5 \$1/100 s) Flat to Moderate	☐ Moderate (2 ±/100 n) ☐ Moderate to Severe ☐ Severe (10 n/100) n)			

ADDITIONAL STREAM INFORMATION (This Information Must Also be Co	ompleted):
QHEI PERFORMED? - TYOS X NO QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE W	
USGS Quadrangle Name: PAYNO, DL FU NRC	S Soil Map Page: NRCS Soil Map Stream Order
County: Youlder Township/C	Hy. Hervison Tup.
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation: 10/31	5/15 Quantity: ~ 1. U m
Photograph Information:	`. ÷
Elevated Turbidity? (Y/N): Y. Canopy (% open): 100	
Were samples collected for water chemistry? (Y/N): (Note lab sample	e no, or id. and attach results) Lab Number:
` /	pH (S.U.) Conductivity (µmhos/cm)
is the sampling reach representative of the stream (Y/N) If not, please	explain:
Additional comments/description of pollution impacts: Agricult	wal Manage of Hich
BIOTIC EVALUATION	
	. lons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)
.)	
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macro	!? (Y/N) Voucher? (Y/N) oinvertehrates Observed? (Y/N) Voucher? (Y/N)
3.5	Volume Vo
DRAWING AND NARRATIVE DESCRIPTION OF S	· · · · · · · · · · · · · · · · · · ·
Include important landmarks and other features of Interest for site ev	•
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FLOW -> LANGUE ST	Wise Cipardin
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CrisEPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):



SITE NAMEZOCATION SYCLATOR ILIT	=				
SITE NUMBER RIVER BASIN / VWW / DRAINAGE AREA (mi²)					
LENGTH OF STREAM REACH (ft) 200 LAT. LONG. RIVER CODERIVER MILE	-				
DATE 0/25/15 SCORER KRC COMMENTS	_				
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction					
STREAM CHANNEL ON NO NO NO NO RECOVER DE 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 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [9 pt]	tric nts trate				
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] <~~					
☐ SAND (<2 mm) [6 pts] ☐ ARTIFICIAL [3 pts]					
Total of Percentages of (A) 3 (B) 2 A+ Bidr Slabs, Boulder, Cobble, Bedrock TOTAL NUMBER OF SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	В				
2. Maximum Pool Depth (Measure the maximum pool depth within the bit meter (2001) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 30 centimeters [20 pts] 5 cm = 10 cm [15 pts] 5 cm = 10 cm [30 pts] 7 cm = 1	= 30 ==				
COMMENTS MAXIMUM POOL DEPTH (centimeters):	<u> </u>				
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13) [30 pts]					
COMMENTS AVERAGE BANKFULL WIDTH (meters)	>				
This Information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY 公NOTE: River Left (L) and Right (R) as looking downstream 公 RIPARIAN WIDTH FLOODPLAIN QUALITY					
I. R (Per Bank)					
Moderate 5-10m					
Pield Nerve 5m Decidential Park New Field Decide					
Narrow <5m					
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing					
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):					
, stream gradient estimate					

ADDITIONAL STREAM INFORMATION	l (This information Must Al	so be Completed):	
QHEI PERFORMED? - Y	es⊂⊠No QHEIScore	(If Yes, Attach Cor	mpleted QHEI Form)
DOWNSTREAM DESIGNATE			
CAN Name:		Dis	tance from Evaluated Stream
EWH Name;			ance from Evaluated Streamance from Evaluated Stream
et a	-		. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name:	re OH	NRCS Soil Map Page;_	NRCS Soll Map Stream Order
County: Yaulding) Tow	nship/City. <u>HACC</u>	ison Thp.
MISCELLANEOUS) / /	¥
Base Flow Conditions? (Y/N):	Date of last precipitation: 1	0/28/15	uantify: 1.050
Photograph Information: $Ye >$			
Elevated Turbidity7 (Y/N):	Сапору (% open); 10-	0	
			ch results) Lab Number:
			_Conductivity (µmhos/cm)
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
Additional comments/description of poliul	fion impacts: 1501	cultural d	rainage detah
ID numbe Fish Observed? (Y/N) Voucher?	r. Include appropriate field da ? (Y/N) Salamanders o Voucher? (Y/N) Aqua	ta sheets from the Primary Ho Observed? (Y/N)	E: all voucher samples must be labeled with the site eadwater Habitat Assessment Manual) ucher? (Y/N) erved? (Y/N)
DRAWING AND NARE	RATIVE DESCRIPTION	N OF STREAM REAC	H (This <u>must</u> be completed):
Include Important landmarks and		or site evaluation and a nai	rative description of the stream's location VESC GORDAL CHEIVING
LOW	. /	NAMED STRIS	sol significan
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	12 ow . C	Nop Ag	—

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

12/9/2015 2:21:44 PM

in

Case No(s). 15-2030-EL-BGA, 15-2031-EL-BGA

Summary: Application Exhibit D - Wetlands Assessment Part 2 electronically filed by Mr. Michael J. Settineri on behalf of Paulding Wind Farm LLC and Paulding Wind Farm III LLC