

Photograph 79. Representative upland habitat, Facing East



Photograph 80. Representative upland habitat, Facing Southeast



APPENDIX BWetland Determination Data Forms



WETLAND DETERMI	NATION DATA FORM	– Eastern Mountain	s and Piedmont Region
Project/Site: Pine October -	-Heppyor city	County: TACKS	Sampling Date: \$17//
Applicant/Owner: A 2	P		State: DIT Sampling Point: U601
Investigator(s):	CP Sec	tion Township Range: /	not dividel by Plass
	115/00 Local re		
	Lat: 39/1386	aller (concave, convex, none	21-0-1-10
			at cost Al Ae
Soil Map Unit Name: LOTOM - LOTOM			
Are climatic / hydrologic conditions on the site t			f no, explain in Remarks.)
Are Vegetation, Soil, or Hydrolo			Circumstances" present? Yes No
Are VegetationSoil, or Hydrolo	gy V naturally problem	natic? (If needed, ex	plain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach	site map showing sar	mpling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Shamu Point	NoNo	Is the Sampled Area within a Wetland?	yes X No
around an oxid		tion + sur	15 ns a PEM REP
HYDROLOGY		to we	OI-PEM-CHTI
Wetland Hydrology Indicators:		S	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required			Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od		Drainage Patterns (B10)
Saturation (A3) Water Marks (B1)		res on Living Roots (C3)	Moss Trim Lines (B16)
Sediment Deposits (B2)	Presence of Reduced Recent Iron Reduction		Dry-Season Water Table (C2)
Orift Deposits (B3)	Thin Muck Surface ((Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Rer	_	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		_	_ Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		_	Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)		-	_ FAC-Neutral Test (D5)
Field Observations:		11	
Surface Water Present? Yès No	Depth (Inches):	211	
Water Table Present?	Depth (Inches):	0	
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	Wetland Hyd	drology Present? Yes No
Describe Recorded Data (stream gauge, monitor	oring well, aerial photos, pre	vious inspections), if availa	ble:
W/K		107-3 31-108-0-61-0-08	2.0
Remarks:			
werland hydrology	indicorters.	A1 A2 4	A3 Abservaci
	The second secon	11,1	
			'11
			1
			N.
			1

Sampling Point: VEGETATION (Four Strata) - Use scientific names of plants. Dominance Test worksheet: Absolute Dominant Indicator Tree Stratum (Plot size: % Cover Species? Status **Number of Dominant Species** That Are OBL, FACW, or FAC: **Total Number of Dominant** Species Across All Strata: (B) 165-1JM Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: = Total Cover **OBL** species x 1 = 50% of total cover: 20% of total cover: FACW species _____ x 2 = Sapling/Shrub Stratum (Plot size:_ **FAC** species x3=___ FACU species x 4 = ____ **UPL** species x5=___ Column Totals: _ Prevalence Index = B/A = ___ Hydrophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 = Total Cover 4 - Morphological Adaptations¹ (Provide supporting 50% of total cover: 20% of total cover: data in Remarks or on a separate sheet) Herb Stratum (Plot size: Problematic Hydrophytic Vegetation¹ (Explain) MILLYOSTLAINM WIMINLL werken proscripinacoldes ¹Indicators of hydric soll and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants, excluding vines, 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. = Total Cover 20% of total cover: Woody vine - All woody vines greater than 3.28 ft in Woody Vine Stratum (Plot size: Hydrophytic Vegetation Present? = Total Cover 50% of total cover: 20% of total cover: Remarks: (Include photo numbers here or on a separate sheet.) Wetland very is nominant

SOIL	12.44			1						nt: <u>40001</u>
	22.70	to the dept	th needed to docum			or confirm	n the absence	of Indicators	.)	
Depth (inches)	Color (moist)	%	Color (moist)	Feature %	Type ¹	Loc²	Texture		Domarko	
9-4	104241,	15	1012414		Type	MA	Sic		Remarks	
41-1	101 1001		1000 111	2		000		_		_
-111	10111111	100			_		5, 4			_
15-5	109119	100		_	_		SILL	5m	·xide	5013
8-12	10482/2	100					5.06			
			100					21		
			-							
-		_		137						-
				~.						
				**						
Type: C=Co	ncentration, D×Depl	etion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	dns.	² Location: PL	Pore Lining,	M=Matrix.	
Hydric Soil Ir	ndicators:							ors for Prob		ric Sells ³ :
Histosol (Dark Surface					m Muck (A10		7)
	pedon (A2)		Polyvalue Beld			-	. —	ast Prairie Re	, ,	
Black His	iic (A3) Sulfide (A4)		Thin Dark Sun			47, 148)		(MLRA 147,	•	
	Layers (A5)		Loamy Gleyed Depleted Matr		F2)			dmont Flood		19)
	k (A10) (LRR N)		Redox Dark S		6)			MLRA 136, 1 ry Shallow Da	-	ΓΕ12\
	Below Dark Surface	(A11)	Depleted Dark					ner (Explain in		1112)
Thick Dan	k Surface (A12)		Redox Depres					, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	
	icky Mineral (S1) (LI	RR N,	Iron-Manganes	se Masse	es (F12) (L	.RR N,				
	147, 148)		MLRA 136)				_			
	eyed Matrix (S4)		Umbric Surfac					ators of hydro		
Sandy Re-	Matrix (S6)		Piedmont Floo		and the second second			and hydrology		
	yer (if observed):		Red Parent Ma	itenai (F.	21) (MLRA	127, 147) unie:	ss disturbed o	or problemati	C.
Type:				1.0						
Depth (inch	es):					- 18	Hydric Soil P	rosent? V		No
Remarks:							Trydric Coll P	1000111: 1		
TRAINGRAPS.										
4.4	E 1000									
MED-	S F3									

WETLAND DETERMINATION DA	TA FORM - Easter	n Mountains and Piedmo	nt Region
Project/Site: PMC Pidgo - to ponor	City/County:	T. L /.	Sampling Date: 9/17/1
Applicant/Owner:		4. V/LI	
Investigator(s): R5m/NLP	Section Townshi	p, Range: not divid	Sampling Point: NOOL
	Local relief (concave	c, convex, none): Non	V
Subregion (LRR or MLRA): LFLN Lat: 34	Local relief (cortcave	, convex, none): 100 VV	0.000 (70).
Soil Map Unit Name: Lather on July 4 + - 14	1113/30	Long:87, 6877	9 Datum: 11/11/
Soil Map Unit Name: Latham - Whaton 51H /	sams, 15 -04 11	NWI classificati	on:
Are climatic / hydrologic conditions on the site typical for this time. Are Vegetation Soll of the hydrology of significant and significant are significant.			
- i bi riyaralay ** Sidnii	ficantly disturbed?	Are "Normal Circumstances" pre-	sent? Yes No
Are Vegetation	ally problematic?	(If needed, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	wing sampling poi	nt locations, transects, in	mportant features, et
Hydrophytic Vegetation Present? Yes No	Y		
Hydric Soil Present? Yes No	Is the Sam		
Wetland Hydrology Present? Yes No	within a W	etland? Yes	No
Remarks:	^		511
Sample point (octilina ne	it of delid	cas forost s	F GUVI3
		,	
16 10 1	1 - Imoral -	TWA CIATI	
of a splant 147 to	1 MOOI-F	EVICATI	
YDROLOGY		(A)	
Netland Hydrology Indicators:		Secondary Indicators	(minimum of two required
Primary Indicators (minimum of one is required; check all that a	pply)	Surface Soil Cra	
Surface Water (A1) True Aqua	atic Plants (B14)		ted Concave Surface (B8)
High Water Table (A2) · Hydrogen	Sulfide Odor (C1)	Drainage Pattern	
Saturation (A3) Oxidized F	Rhizospheres on Living R	oots (C3) Moss Trim Lines	
	of Reduced Iron (C4)	Dry-Season Wate	
Date Daniella (DO)	on Reduction in Tilled Soil	s (C6) Crayfish Burrows	(C8)
Al-184-4 C	Surface (C7)	Saturation Visible	on Aerial Imagery (C9)
Iron Deposits (B5)	olain in Remarks)	Stunted or Stress	
_ Inundation Visible on Aerial Imagery (B7)		Geomorphic Posi	
_ Water-Stained Leaves (B9)		Shallow Aquitard	
_ Aquatic Fauna (B13)		Microtopographic FAC-Neutral Test	
eld Observations:		TAC-Neutral Test	(D5)
urface Water Present? Yes No Depth (inc	ches):		
ater Table Present? Yes No Depth (inc	:hes):		
aturation Present? Yes No V Depth (inc.		Vetland Hydrology Present?	Vac No 1
escribe Recorded Data (stream gauge, monitoring well, aerial p			103
1771	notos, previous inspection	ns), if available:	
emarks:			
Λ/	,		1
Ne primary for Solo	May 1	CHal hidis	6911
	, 1 W	CILINAL PIG C) '
,	,		V
mail 1 th	1, 1	,	
indienting were &	55crv.N	A.	
V		1.4	

1. Acce (-brew) 2. Pincy Strolus	Absolute % Cover 9-5	Dominant Species?		Number of Dominant Species That Are OBL, FACW, or FAC:(A
3 4		-0-	1 445	Total Number of Dominant Species Across All Strata: 5 (B)
5 6				Percent of Dominant Species That Are OBL, FACW, or FAC: (A)
7				Prevalence Index worksheet:
100		Total Cove	er_	Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover:	7_	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 1518) Carnes Florida	11			FACW species 0 x 2 = 0
Losa M-Hiffy 1	- 17	465	PACO	FAC species
Rusus alleghanist no	- 10_	- N	FAOV	FACU species x4 = _366
Man S College Land	- 3	Np	FAW	UPL species x5 =
				Column Totals: 148 (A) 538 (B
				Prevalence Index = B/A = 3.61
		_		Hydrophytic Vegetation Indicators:
	_			1 - Rapid Test for Hydrophytic Vegetation
		-		2 - Dominance Test is >50%
	70		-	3 - Prevalence Index is ≤3.01
50% of total cover: 15		Total Cover	1.	4 - Morphological Adaptations ¹ (Provide supporting
erb Stratum (Plot size: 3	20% 01 (otal cover:		data in Remarks or on a separate sheet)
trx: codention undicuses	10	No	- 0-	Problematic Hydrophytic Vegetation ¹ (Explain)
Acce when m	15		FAC	
Smlax Potundi fuliby	A	No.	FAC	¹ Indicators of hydric soil and wetland hydrology must
Licopalium digitation	- To		I-AL	be present, unless disturbed or problematic.
Technology - J. M. S.		J<s< del=""> -</s<>	EALL	Definitions of Four Vegetation Strata:
				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) o
				more in diameter at breast height (DBH), regardless of
				height.
				Sapling/Shrub - Woody plants, excluding vines, less
				than 3 in. DBH and greater than or equal to 3.28 ft (1
			-	m) tall.
	12			Herb - All herbaceous (non-woody) plants, regardless
50% of total cover: 41.5	20% 0(10)	Total Cover tal cover: 16	1.	of size, and woody plants less than 3.28 ft tall.
pody Vine Stratum (Plot size: 3/L)	_ 2078 07 101	lai cover. IV	10_	Woody vine - All woody vines greater than 3.28 ft in
	7			height.
None positi				
				Hydrophytic
		otal Cover		Vegetation Present? Yes No.
50% of total cover:	= 10			NO
narks: (Include photo numbers here or on a separate sh	eet)			
, a separate an	cot.)			
opland vegetation is d				

Depth Matrix		rm the absence of Indicators.)
(inches) Cofor (moist) %	Color (moist) % Type¹ Loc²	Texture Remarks
0-3 104136 100		5.2
3-18 104 RGH 100		SILL
		3.00
Type: C=Concentration, D=Depletion, RM= Tydric Soil Indicators:	Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Histosol (A1)	Dark Surface (S7)	Indicators for Problematic Hydric Soils ³ :
Histic Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147,	2 cm Muck (A10) (MLRA 147)
Black Histic (A3)	Thin Dark Surface (S9) (MLRA 147, 148)	148) Coast Prairie Redox (A16) (MLRA 147, 148)
Hydrogen Sulfide (A4) Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19)
2 cm Muck (A10) (LRR N)	Depleted Matrix (F3) Redox Dark Surface (F6)	(MLRA 136, 147)
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Thick Dark Surface (A12)	Redox Depressions (F8)	Outer (Explain in Remarks)
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
_ Sandy Gleyed Matrix (S4)	Umbric Surface (F13) (MLRA 136, 122)	3Indicators of hudows but
_ Sandy Redox (S5)	Pledmont Floodplain Soils (F19) (MLRA 14)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
_ Stripped Matrix (S6) estrictive Layer (if observed):	Red Parent Material (F21) (MLRA 127, 147	unless disturbed or problematic.
		X
Туре:		X
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches): ernarks;		Hydric Soil Present? Yes No
Type: Depth (inches): emarks;	Salle	Hydric Soil Present? Yes No
Type: Depth (inches):	soils	Hydric Soil Present? Yes No
Type: Depth (inches): marks:	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): marks:	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): emarks:	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): emarks;	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): marks;	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): emarks:	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): emarks;	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): emarks:	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): emarks;	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): emarks;	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): amarks;	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): emarks;	Soils	Hydric Soil Present? Yes No
Type: Depth (inches): ernarks;	Soils	Hydric Soil Present? Yes No

WETLAND DETERMIN	NATION DATA FORM	I – Eastern Mounta	ins and Pleamont Region
Project/Site: Dine Link 72H	EDDAGY City	County: Jacks	Sampling Date: 8/7/17
Applicant/Owner: A 2 P			State: State: Sampling Point: WCOD
Investigator(s): Bom	/NGP Sec	tion, Township, Range:_	10000
	. / /	ellef (concave, convex, no	
Subregion (LRR or MLRA): CAL W	Lat: 39.11173		82.687205 Deturn: N/17.97
0		5/0 pcs, 6 roll	110
Soil Map Unit Name: Karlen-Whartin 5			
Are climatic / hydrologic conditions on the site ty	1/		(If no, explain in Remarks.)
Are Vegetation Soil or Hydrolog	gy significantly dist.	urbed? Are "Norma	al Circumstances" present? Yes No
Are Vegetation, or Hydrolog	gynaturally problem	natic? (If needed,	explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach	site map showing sa	mpling point locati	ons, transects, important features, etc.
	+		
Hydrophytic Vegetation Present? Yes		Is the Sampled Area	
Hydric Soil Present? Yes Wetland Hydrology Present? Yes		within a Wetland?	Yes No
Wetland Hydrology Present? Yes Remarks:	X No		
	AD in a	PC cantly	timber (oldfill
Sample point loc	catal in a		1016111
Stuce hs	PS M 107	D 40 1100	2 - DEMI-C ATI
HYDROLOGY	1	4000	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required	المراجعة فعطة الم فلتحتظف با		Secondary Indicators (minimum of two required)
Surface Water (A1)		/D4.4\	Surface Soil Cracks (B6)
High Water Table (A2)	True Aquatic Plants Hydrogen Sulfide Oc		Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
Saturation (A3)		res on Living Roots (C3)	Drainage Patterns (B16) Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduce		Dry-Season Water Table (C2)
Sediment Deposits (B2)		on in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	marks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)			Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:	1	//	
	Depth (inches);	611	Note that the second second
Water Table Present? Yes No.	Depth (inches):!	011	1./
Saturation Present? Yes No	Depth (inches):	Wetland F	fydrology Present? Yes No
Describe Recorded Data (stream gauge, monitor	oring well, aerial photos, pre	vious inspections), if ave	ilable:
MA		200000000000000000000000000000000000000	
Remarks:			
Wetland Nycholog.	1 radion-tord	5 0 (10 0)	07 03 N. NE
Acres 21	of money	3 WIE HIL	HZ, H 3 & 33
100			<i>I</i> (1)
			V.(1)
			1
			1
			-
			- 1

Sampling Point: WOO 2(PEW) VEGETATION (Four Strata) - 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: **Total Number of Dominant** Species Across All Strata: **Percent of Dominant Species** That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: = Total Cover **OBL** species x1=__ 50% of total cover: __ 20% of total cover:_ FACW species ___ x2= Sapling/Shrub Stratum (Plot size: Z) FAC species _ x3=__ FACU species _ x4=___ x5=___ UPL species Column Totals: _ (A) _____(B) Prevalence Index = B/A = ___ Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation \$2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 = Total Cover 4 - Morphological Adaptations (Provide supporting 50% of total cover: 20% of total cover: data in Remarks or on a separate sheet) Herb Stratum (Plot size: _ Problematic Hydrophytic Vegetation¹ (Explain) PACW DAL ¹Indicators of hydric soil and wetland hydrology must - rus- 94/1; FAL be present, unless disturbed or problematic. FACW **Definitions of Four Vegetation Strate:** FALW Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 10. Herb - All herbaceous (non-woody) plants, regardless = Total Cover of size, and woody plants less than 3.28 ft tall. 50% of total gover: 50.5 20% of total cover:_ Woody vine - All woody vines greater than 3.28 ft In Woody Vine Stratum (Plot size: height. **Hydrophytic** Vegetation Present? = Total Cover 50% of total cover: 20% of total cover: Ramarks: (Include photo numbers here or on a separate sheet.) Posses daminaine jost- wetland veg is dominant

Profile Description: (Describe to the Depth Matrix		Features		or commin	ute absence (i muicat	u.a.,	
(inches) Color (moist)	Color (moist)	_%_	Type ¹	Loc	Texture		Remarks	
0-10 108/4/2 8	U lora st	15	-	W	1,0			
	10/2 4/2	5	D	u				
10-10 1042 212 0	00				5.4	- 60	il a	MARIE
		-					lucy	V
							V	
		_	_					
		_						
						-		
		-						
TO A STATE OF THE								
ype: C=Concentration, D=Depletion, ydric Soil Indicators:	, RM=Reduced Matrix, MS	=Masked S	Sand Gra	ins.	² Location: PL=	Pore Lini	ng, M=Matrix	ydric Soils ³ :
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11)		ix (F3) urface (F6) Surface (F) F7)		(l Ver	MLRA 13 y Shallow	odplain Soils 6, 147) Dark Surface n in Remarks	e (TF12)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5)	MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla	nd hydrol	drophytic veg	present,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	, Iron-Manganes MLRA 136) Umbric Surface	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla	nd hydrol	rdrophytic veg ogy must be ad or problem	present,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla	nd hydrol	ogy must be	present,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, atic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) estrictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla	nd hydrol s disturbe	ogy must be	present,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) estrictive Layer (if observed): Type:	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, atic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) estrictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) estrictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe esent?	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (tf observed): Type: Depth (Inches): marks:	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe esent?	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (If observed): Type: Depth (Inches): marks:	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe esent?	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (tf observed): Type: Depth (Inches): marks:	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe esent?	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (tf observed): Type: Depth (Inches): marks:	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe esent?	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (tf observed): Type: Depth (Inches):	Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor Red Parent Ma	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe esent?	ogy must be	present, etic,
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N. MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (Inches):	, Iron-Manganes MLRA 136) Umbric Surface Piedmont Floor	se Masses e (F13) (Mi dplain Soil	(F12) (L LRA 136 s (F19) (5, 122) MLRA 14	8) wetla) unles	nd hydrol s disturbe esent?	ogy must be	present, etic,

WETLAND DETERMIN	ATION DATA FORM - Easter	rn Mountains and Pledmont Region
Project/Site: Dive 2 100 8 - HE	DONEY CIty/County:	Juckson Co Sampling Date 17/11
Nº CO		State: TH Sampling Point NOO3 (
Applicant/Owner:	D/P	and the state of t
Investigator(s):	Section, Towns	
Landform (hillslope, terrace, etc.):	Local relief (concav	ve, convex, none): (
Subregion (LRR or MLRA):	Lat: 39.1116 36	Long: -82.685/9/ Datum: 1/10/5}
Soil Map Unit Name: Lathur - Liberter	it land 15.25 % 5%	ons or del NWI classification: NM
	1	
Are climatic / hydrologic conditions on the site typ		
Are Vegetation, Soil, or Hydrolog	y significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation//, Soil//, or Hydrolog	y_//_naturally problematic?	(If needed, explain any answers In Remarks.)
SUMMARY OF FINDINGS - Attach si	ite map showing sampling p	oint locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes _	No Is the Sa	empled Area
Hydric Soil Present? Yes _	Ala I	Wetland? Yes No
Wetland Hydrology Present? Yes	× No	
Remarks:		
Sample Dist	Cortal in a	Contain talles &
Point	(0000	
6.16.23210	1	~ · O=0.
BUNG 45 73 M	100 TO WOO	3-PEMI-CATZ
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)
X Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living	
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled	
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		✓ Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations:	1/	
Surface Water Present? Yes No _	Depth (Inches):	
Water Table Present? Yes No_	Depth (inches):	
Saturation Present? Yes X No _	Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)		Warras Warras Annual Control
Describe Recorded Data (stream gauge, monitor	ing well, aenal photos, previous inspe	ictions), if available:
Remarks:		
mothern hidror	2 sect a took	are A1, A2, A3, D2 4D5
Merce Harmaica	30 MILLICOLTONS	ME MI, MZ, 113, 102 120
	,	

/EGETATION (Four Strata) – Use scientific	Absolute	The Control of the Co	The second section of the second	Dominance Test worksheet:	oint: <u>43003 (1</u>
Tree Stratum (Plot size: 310)	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	
2					7
3				Total Number of Dominant Species Across All Strata:	<u> </u>
4. None Observa		-		1	(B)
6	7			Percent of Dominant Species	1020
*		_		That Are OBL; FACW, or FAC:	-VVV (A/E
7		_	_	Prevalence Index worksheet:	
7		7.10		Total % Cover of:	Multiply by:
50% of total cover:	4	Total Cover		OBL species	(1=
Sapling/Shrub Stratum (Plot size: 1512)	20 /0 01	total cover.		FACW species	
Saping/Smab Stratom (Flot size,					3=
				FACU speciesx	
		_	_		5=
				Column Totals:(/	
Non- Observa				Column Totals:((B)
IVIN - EDSIVIC				Prevalence Index = B/A =	
0				Hydrophytic Vegetation Indica	
				- Rapid Test for Hydrophy	
3				2 - Dominance Test is >50%	
		Total Cove	er	3 - Prevalence Index is ≤3.0	
50% of total cover:	20% of t	otal cover		4 - Morphological Adaptatio	
lerb Stratum (Plot size:)	-			data in Remarks or on a	
Emphtions campis	30	405	FALW	Problematic Hydrophytic Ve	getation' (Explain)
Scitous atrovirens	25	405	OBL		
June 15 6+1-5	5	w	FALW	Indicators of hydric soil and wel	land hydrology must
Persioner Sugarior	15	10	OBL	be present, unless disturbed or	
Solidago a cont	10	No	FALW	Definitions of Four Vegetation	Strata:
Carce clinitin		716	OBL	Tree - Woody plants, excluding	vines, 3 in. (7.6 cm) or
Bricka gens. hilis	-10	410		more in diameter at breast heigh	it (DBH), regardless of
Chief Son S. Hills	7	100	FALW	height.	
4				Sapling/Shrub - Woody plants,	excluding vines, less
		_	-	than 3 in. DBH and greater than	or equal to 3.28 ft (1
0			\rightarrow	m) tall.	
1-			-	Herb - All herbaceous (non-woo	
-	100 =	Total Cove	- >	of size, and woody plants less th	an 3.28 ft tall,
50% of total cover: 5	20% of to	otal cover:	00	Woody vine - All woody vines g	reater than 3.28 ft in
oody Vine Stratum (Plot size:)				height.	
Minc book					/
Minc ison					/
100				Hydrophytic	
				Vegetation	
	=	Total Cove		Present? Yes	No
50% of total cover.		tal cover:		/	
smarks: (Include photo numbers here or on a separate					
Dasses dans as		011	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	. +
Passes dominance tes	T W	etlan	a Va	29 B damina	Maril

			pth needed to docur			or confin	I die austrice	or indics	iors.	
Depth (inches)	Color (mois		Color (moist)	x Features %	Type ¹	Loc3	Texture		Remarks	
4.4	10 YE 4/				TANG	LOC		-	Remarks	
10-12	TOAKA	170	107051	20	D.	1	314	_		
			10424/6	10	C	Ma				
					- (4)					
	_		-	_				-		
						,				
								1		
				_		_				
Type: C=Co	ncentration D=	Danletina DM	=Reduced Matrix, MS	-Mackarl	Cond O	line	Z anniham Di	officers I h	-	
lydric Soil In	dicators.	DOUGH, KIN	-Neutreo Metrix, Mo	-meaned	Salid Gr	III18.			ning, M=Matrix	
			B 1.5	(0.7)					Problematic H	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Histosol (Dark Surface	, ,	7				(A10) (MLRA 1	
	pedon (A2)		Polyvalue Bel						ie Redox (A16)	
Black Hist			Thin Dark Sui			47, 148)		(MLRA 1		
	Sulfide (A4)		Loamy Gleyer		2)				loodplain Solls	(F19)
	Layers (A5)		Depleted Mat	The second second				(MLRA 1		
	k (A10) (LRR N		Redox Dark S		•		Ve	ry Shallo	w Dark Surface	(TF12)
	Below Dark Sui		Depleted Dark	k Surface (F7)		Ot	her (Expl	ain in Remarks)
Thick Dark			Baday Danne		١					
	k Surface (A12)		Redox Depres	ssions (FB)	,					
	k Surface (A12) icky Mineral (S1					.RR N,				
Sandy Mu			Iron-Mangane	se Masses		.RR N,				
Sandy Mu MLRA	icky Mineral (S1	I) (LRR N,	Iron-Mangane MLRA 136	se Ma sse s)	s (F12) (L		³ India	cators of h	nvdrophytic vec	letation and
Sandy Mu MLRA	icky Mineral (S1 147, 148) ayed Matrix (S4	I) (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac	se Masses) ce (F13) (M	s (F12) (L ILRA 136	i, 122)			nydrophytic veg	
Sandy Mu MLRA Sandy Gle	icky Mineral (S1 147, 148) Byed Matrix (S4 dox (S5)	I) (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	B) wet	and hydr	ology must be	oresent,
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped M	icky Mineral (S1 147, 148) Byed Matrix (S4 dox (S5)	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	B) wet	and hydr		oresent,
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La	icky Mineral (S1 147, 148) Byed Matrix (S4 dox (S5) Matrix (S6)	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	B) wet	and hydr	ology must be	oresent,
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped M Strictive La	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6)	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Ree Stripped M Restrictive La Type: Depth (inch	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6)	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	B) wet	land hydro ess disturi	ology must be	oresent,
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped N Restrictive La	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6)	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Ree Stripped M Restrictive La Type: Depth (inch	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6)	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped M Restrictive La Type: Depth (inchesemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped M Strictive La Type: Depth (inchesemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchesemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6)	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchesemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchesemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchesemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchesemerks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchesemerks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchesemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchesemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchemarks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inchesemerks:	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Gle Sandy Rec Stripped Mestrictive La Type: Depth (inches	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.
Sandy Mu MLRA Sandy Rec Sandy Rec Stripped Mestrictive La Type: Depth (inches	icky Mineral (S1 147, 148) ayed Matrix (S4 dox (S5) Matrix (S6) ayer (if observe	() (LRR N,	Iron-Mangane MLRA 136 Umbric Surfac Piedmont Floo	se Masses) ce (F13) (M odplain Soi	is (F12) (L IL RA 136 ils (F19) (i, 122) MLRA 14	8) weti) unle	land hydro ess disturi	plogy must be posed or problem	oresent, atic.

WEIL	AND DETERMINATION DATA	FORM – Eastern Mounta	ains and Piedmont Region
Project/Site: TWE 12	Lidge-Hoppier	_ City/County: _ Jackson	County Sampling Date: 9/1/
Applicant/Owner:	ALL		State: OH Sampling Point: WOO
Investigator(s):	BSM /NGP	Section, Township, Range:_	Not divided by PLSS -L
Landform (hillslope, terrace	, etc.): hillslop-	Local relief (concave, convex, n	one); Mh o Slope (%); b
Subregion (LRR or MLRA):	LARN Lat: 39,11	494 Long: _	2
Soil Map Unit Name:	oly-Latham asse	ociution / Stap	NWI classification:
	ditions on the site typical for this time of	V	
Are Vegetation _ / Soil	or Hydrology significant	1	(If no, explain in Remarks.)
Are Vegetation Soil	or Hydrology / naturally		al Circumstances" present? Yes No
			explain any answers in Remarks.)
		ng sampling point locati	ons, transects, important features, e
Hydrophytic Vegetation Pre	esent? Yes No	In the Court Lab	
Hydric Soil Present?	YesNo_X	Is the Sampled Area within a Wetland?	Yes No
Wetland Hydrology Present	? Yes No_>	- William a steplana	res No
Remarks:	(. 1) 1,	1	1 0
non pt	sint 600th	an Mixed	decid-out force
+	0 1	W0000	-PEM-CATI a
\$ 514G	as rolling	ap 10 mino	2 00000
HYDROLOGY		THE WALL	5- PEIN-CHTZ
Wetland Hydrology Indicat	tore:		
	of one is required; check all that apply)		Secondary Indicators (minimum of two required)
Surface Water (A1)	True Aquatic F		Surface Soil Cracks (B6)
High Water Table (A2)	Hydrogen Sulfi		Sparsely Vegetated Concave Surface (B8)
Saturation (A3)		ospheres on Living Roots (C3)	Drainage Patterns (B10)
Water Marks (B1)	Presence of Re	educed Iron (C4)	Moss Trim Lines (B16) Dry-Season Water Table (C2)
Sediment Deposits (B2)		eduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surf		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain	in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5) Inundation Visible on Ael	int to a control (P.T.)		Geomorphic Position (D2)
Water-Stained Leaves (E	iai imagery (B7)		Shallow Aquitard (D3)
Aquatic Fauna (B13)	10)		Microtopographic Relief (D4)
leld Observations:	-		FAC-Neutral Test (D5)
Surface Water Present?	Yes No Depth (inches)		
Vater Table Present?	Yes No Depth (inches)		
Saturation Present?	Yes No Depth (inches)		ydrology Present? Yes No
ncludes capillary fringe)			
A A A A A A A A A A A A A A A A A A A	am gauge, monitoring well, aerial photo-	s, previous inspections), if avail-	able:
temarks:			
Λ (.	. [1	· · · · · · · · · · · · · · · · · · ·	
110 prim	had aux/11	Secondary	Wetland hyllays
F.		<u></u>	711-73
1		11000	र र्न
1. Ally	ne aller	10301000	

VEGETATION (Four Strata) - Use scientific names of plants.

Sampling Point: NOO2+W003-UP

Tree Stratum (Plot size: 3011) 1. Ostroin Virginian	Absolute Dominant Indicator % Cover Species? Status 75 FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3. Acce Specher-in	TO JO FAU	Total Number of Dominant Species Across All Strata: (B)
5		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
7		Prevalence Index worksheet:
22	45 = Total Cover	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 1500)	5 20% of total cover: 9	OBL species x1 =
1. Fagus gradifila	_16 Yes FACE	FACW species x2=
2. Dog at 11.51.	70	FAC species x3= FACU species x4=
3.	- 130 YES FAW	UPL species x5=
4		0.4
5		Column Totals:(A)(B)
6		Prevalence Index = 8/A =
7		Hydrophytic Vegetation Indicators:
8		1 - Rapid Test for Hydrophytic Vegetation
9		2 - Dominance Test is >50%
	40 = Total Cover	3 - Prevalence Index is ≤3.0¹
	20% of total cover:	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5	1- 4.	data in Remarks or on a separate sheet)
. Poly Stichum acrostoides	13 Y3 FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
. Potentilla ample	Jes FAW	1
B. Porsicular Virginian	10 7.5 FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
texicodendium radions	5 NO PAC	Definitions of Four Vegetation Strata:
		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
0		m) tall.
1		Mark All backsons (see 1)
50% of total cover: / 9	38 = Total Cover 20% of total cover: 7.6	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
oody Vine Stratum (Plot size: 30k)		Woody vine - All woody vines greater than 3.28 ft in height.
4/		
Al and the same		
101nc 025-01		201
		Hydrophytic
		Vegetation
	= Total Cover	Present? Yes No
50% of total cover:	20% of total cover:	1
emarks: (Include photo numbers here or on a separate sh	eet.)	
roland van		
opland reg is domin	ant	
	316	

Sampling Point: 10003-UPL

(inches) Color (i	Matrix		Re	dox Feature	es		the absence of	indicators.)	
150		%	Color (moist)	%	Type1	Loc2	Taxture	Rer	marks
V	23/2	160					· 9,2	1301	Herno
2-10 1041	4/4	101					51		
1046 104	25/41	00					-		
100	4	00				-	2 57		
		- O							
		-					-		
		-							
	_	-		-					
T									
Type: C=Concentration, tydric Soil Indicators:	D=Depletion	n, RM=R	educed Matrix, N	/IS=Masked	Sand Grai	ns.	² Location: PL=F	ore Lining, M=N	fatrix.
Histosol (A1)			5 1 5 4				Indicator	rs for Problema	tic Hydric Solls ³ :
Histic Epipedon (A2)			Dark Surfac		(00) (00)		2 cm	Muck (A10) (ML	RA 147)
Black Histic (A3)			Polyvalue B Thin Dark S	elow Sunac	e (S8) (ML	.RA 147, 1	_	t Prairie Redox ((A16)
Hydrogen Sulfide (A4	!)	•	Loamy Gley	ed Matrix (F	(MLKA 14 :2)	7, 148)		LRA 147, 148)	S. II. (5)
Stratified Layers (A5)	ı		Depleted Ma		۷,		Piedr	mont Floodplain : LRA 136, 147)	Soils (F19)
2 cm Muck (A10) (LR			Redox Dark		3)			Shallow Dark Su	irface (TE12)
Depleted Below Dark	Surface (A1	1) _	Depleted Da				Other	(Explain in Rem	narks)
Thick Dark Surface (ASandy Mucky Mineral	\12) -(84) ((.55) \		Redox Depr					,	,
Sandy Mucky Mineral MLRA 147, 148)	(51) (LRR I	ν, _	Iron-Mangar		s (F12) (LF	RR N,			
Sandy Gleyed Matrix ((S4)		MLRA 13		11 DA 400	400)	3		
_ Sandy Redox (S5)	()	-	Umbric Surfa Piedmont Flo	ace (F13) (N	ILKA 136, ile /E10\ /M	122) U DA 440\	°Indicato	ors of hydrophytic	c vegetation and
_ Stripped Matrix (S6)			Red Parent I	Material (F2	1) (MLRA	127 147)		d hydrology mus disturbed or prol	t be present,
					-/ (121, 141,	0111633	disturbed of prof	piematic.
estrictive Layer (if obse	rvea):					1.4			-
estrictive Layer (if obse Type:	ervea):								1
Lestrictive Layer (if obse Type:	rvea);					- 1	Hydric Soll Pres	sent? Yes	New
estrictive Layer (if obse Type:	rved):						Hydric Soll Pres	sent? Yes	No
Lestrictive Layer (if obse Type:	rved):						Hydric Soll Pres	sent? Yes	No
estrictive Layer (if obse Type:	rved);		V				Hydric Soll Pres	sent? Yes	No
estrictive Layer (if obse Type:	(\ C	30	ils				Hydric Soll Pres	sent? Yes	No
estrictive Layer (if obse Type: Depth (inches):	(\ C	500	ils				Hydric Soll Pres	sent? Yes	No
estrictive Layer (if obse Type: Depth (inches):	(\ <	50	1/3				Hydric Soll Pres	sent? Yes	No
estrictive Layer (if obse Type: Depth (inches):	(\ C	500	ils				Hydric Soll Pres	sent? Yes	No
estrictive Layer (if obse Type: Depth (inches):	(\ C	50	ils				Hydric Soll Pre	sent? Yes	No
Type:	(\ C	50	i/S				Hydric Soll Pre	sent? Yes	No
estrictive Layer (if obse Type: Depth (inches):	(\ <	500	ils				Hydric Soll Pre	sent? Yes	No
Depth (inches):	(\ C	500	ils				Hydric Soll Pre	sent? Yes	No.
Depth (inches):	(\ C	300	i)S				Hydric Soll Pre	sent? Yes	No.
Type: Depth (inches): marks:	(\ C	50	i\S				Hydric Soll Pre	sent? Yes	No
Type:	(\ <	50	i/S				Hydric Soll Pre	sent? Yes	No
Depth (inches): Type: Depth (inches): Type: Depth (inches):	(\ <	500	ils				Hydric Soll Pre	sent? Yes	No.
Depth (inches): Type: Depth (inches): Type: Depth (inches):	(\ C	50	1/3				Hydric Soll Pre	sent? Yes	No.
Depth (inches): emarks:	(\ C	500	1/5				Hydric Soll Pre	sent? Yes	No.
Depth (inches): emarks:	(\ C	500	i\S				Hydric Soll Pre	sent? Yes	No.
Depth (inches): emarks:	(\ C	50	ils				Hydric Soll Pre	sent? Yes	No
Depth (inches): emarks:	(\ <	50	ils				Hydric Soll Pre	sent? Yes	No.
Depth (inches): emarks:	(\ C	50	ils				Hydric Soll Pre	sent? Yes	No.

WETLAND DETERMINATION DATA FORM - Eastern I	Mountains and Piedmont Region
Project/Site: Pinc Ridge Homen City/County: Jack	Sampling Date: 8 22 2017
Applicant/Owner:	State: OH Sampling Point NOO (PEM)
Investigator(s): Section, Township	nlp, Range: Liberty Twp
1 10 10 1 10 1 10 1 10 1	ve, convex, none): CONCOVC Slope (%) 01.
Subregion (LRR or MLRA): LR 39, 100(60)	Long: -82 170105 Datum: NAD 83
soil Map Unit Name: BrG-Rigley-Rock outcrop association, very st	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year? Yes Yes Are Vegetation Mo., Soil Mo., or Hydrology Mo. significantly disturbed?	No (If no, explain in Remarks)
Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic?	Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point	
Hydrophytic Vegetation Present? Yes No	W. V.
	a within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: Wetland data point for WOOH-PEM.	
Data point taken withintransmission Rol	w/
Data point taken within anomiation in	
INCREI DAY	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Geomorphic Position (D2)
Water-Stained Leaves (B9)	Shallow Aquitard (D3) Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
	Vetland Hydrology Present? Yes No
Saturation Present? Yes No Depth (Inches): W	vectarid nydrology Present? Yes V No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Hydrology Indicators are A3, C3, D2 ar	~ D5.
	1
	000 000

				Total Number of Dominant Species Across All Strate: Percent of Dominant Species That Are OBL, FACW, or FAC: (A) (B)
			= 1	Percent of Dominant Species That Are OBL, FACW, or FAC:
			-	
size: 15'	0_	= Total Co	ver	Prevalence Index worksheet:
				UPL species x 5 =
	<u> </u>	= Total Co	ver	Hydrophylic Vegetation Indicators: 1 - Rapid Test for Hydrophylic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations (Provide supportin
	1020000000	2777222	Factor Cool Factor Cool Factor Cool	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata: Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more diameter.
	(D)	= Total Co	ver	Sapling/Shrub- Woody plants, excluding vines, less than 3 in DBH and greater than or equal to 3.28 ft (1 m) tall.
size: 30')	1			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.
	2	= Total Co	ver	Hydrophytic Vegetation Present? Yes \(\sum \) No
	atum num ilis	O Size: Size: Size: 30 O O O O O O O O O	Total Co	Total Cover Total Cover

March and March Street			Redox Featur				
(inches) Color (molst)	80	Color (moist)	20	Type ¹	M PL	Texture 10amy	Remarks
			<u> </u>	-	\equiv		
e: C≃concentration, D=Depletion, R	RM=Reduced	Matrix, MS=Masked S	and Grains.		-	² Location: PL=Pore	Lining, M=Matrix.
ric Soll Indicators:						Indicators for Probl	ematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (F2) Depleted Dark Surface (F6) Depleted Dark Surface (F7) Redox Dark Surface (F7) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 147,148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, Stripped Matrix (S6)						Piedmont Flood (MLRA 136, 14 Very Shallow D Other (Explain i	edox (A16) (MLRA 147, 148) Iplain Soils (F19) 7) ark Surface (TF12)
trictive Layer (if observed):					Hydric		/
Depth (inches):					Soil Pres	ent? Yes	No
Description Remarks:	ts F2						
Mec							
Med		3					

Subregion (LRR or MLRA): Soil Map Unit Name: Are climatic/nydrologic conditions on the site typical for this time of year? Are Vegetation 100, Soil 100, or Hydrology 100 significantly disturbed? Are Vegetation 100, Soil 100, or Hydrology 100 naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point Hydrophylic Vegetation Present? Yes 1000000000000000000000000000000000000	Sampling Date: 822
Upland data point for WOOH-PEM- Data point taken with transmission Pu	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Fleld Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No ✓
Describe Recorded Data (stream gauge, monitoring well, aertal photos, previous inspections), if available: Remarks: Welland hydrolagy hat present.	

ree Stratum 1. N:N.2 2		Species? Status	Number of Dominant Species That Are DBL, FACW, or FAC: (A
3			
3			
			Total Number of Dominant Species Across All Strate: (B
5.			Percent of Dominant Species That Are
			Percent of Dominant Species That Are OBL, FACW, or FAC:
6			December to descriptions.
7	0	= Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by:
161			OBL species x 1 =
apling/Shrub Stratum 1. Publis Alleghenensis	- 20	y FacU	FACW species
2		1,400	FACU species x 4 =
3			UPL species x 5 =
4			Column Totals: (A) (
5. 6.			Prevalence Index = B/A =
7			
8. 9.			Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
0			2 - Dominance Test is >50%
	20	≖ Total Cover	3 - Prevalence Index is ≤3.0¹
erb Stratum (Plot size: 5	1	12.5	4 - Morphological Adaptations¹ (Provide supportine data in Remarks or on a separate sheet)
. Panicum clandestinum	15	y Fac	Problematic Hydrophytic Vegetation ¹ (Explain)
Polystichum acrostichoides Dolucus carota	$-\frac{10}{10}$	N FacU	I to display of budging all and watered budgetons much
Achillea millefolium	- 18	Facu	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Trifolium pratinge	10	Fact	Definitions of Vegetation Strata:
5.		-	
3			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more diameter.
). 			
),			
h			Sapling/Shrub- Woody plants, excluding vines, less than 3 DBH and greater than or equal to 3.28 ft (1 m) tall.
	70	= Total Cover	
			Herb - All herbaceous (non-woody) plants, regardless
oody Vine Stratum (Plot size: 30)	- 4	of size, and woody plants less than 3.28 ft tall.
. None			
			Woody Vines - All woody vines greater than 3.28 ft in
			height.
	_		
	<u></u>	= Total Cover	
		V.()	Hydrophytic Vegetation
		170	Present? Yes No
getation Remarks: (Include photo numbers here or on a sep	parate sheet).		
Upland veg. is dom	inant,		

Depth	Matrix			Redox Featu				
(inches)	Color (moist)	- %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
)-16	104R4/2	1001		_			Sandylourn	
				\equiv				
me: C=conc	entration, D=Depletion,	RM=Reduced I	Matrix MS=Masked S	Sand Grains			² Location: PL=Pore Linin	o. M=Matrix
dric Soil Ind		TAM-ACCUCCO	MBBIA, INIO-IVIDANCO C	Sand Graine.			Indicators for Problema	
Stratified L 2 cm Muck Depleted B Thick Dark Sandy Muc MLRA 147 Sandy Gley Sandy Red Stripped M	pedon (A2) ic (A3) Sulfide (A4) Layers (A5) c (A10) (LRR N) Below Dark Surface (A1 c Surface (A12) cky Mineral (S1) (LRR II (148) yed Matrix (S4) dox (S5)	N, —	Dark Surface (S' Polyvalue Below Thin Dark Surface Loamy Gleyed M Depleted Matrix Redox Dark Surf Depleted Dark S Redox Depression Iron-Manganese Umbric Surface of Piedmont Floody Red Parent Mate	v Surface (S8) Ce (S9) (MLR Matrix (F2) (F3) Face (F6) Furface (F7) Fons (F8) Masses (F1) (F13) (MLRA Forial (F21) (M	2) (LRR N, M 136, 122) 19) (MLRA 1 LRA 127, 14	ILRA 136) 48) 7)	Piedmont Floodplair (MLRA 136, 147) Very Shallow Dark S Other (Explain in Re	(A16) (MLRA 147, 148) n Soils (F19) Surface (TF12)
	yer (if observed):					Hydr Soll Pre	ric	No V
oil Descriptio	on Remarks: Maric Soi	ilsarer	not preser	γł.				

WETLAND DETERMINATION DATA FORM - E	astern Mountains and Piedmont Region
Project/Site: Pinc Ridax - Happinar City/County:	Juck Son Co Sampling Date: 8/23/2017
Applicant/Owner: AEP	State: OH Sampling Point NOO7 (PF m)
Investigator(s): KLV Section	n, Township, Range: COal Turp.
Landform (hilslope, terrace, etc.):	el (concave, convex, none): CONCOVC Slope (%) O'
Subregion (LRR or MLRA):	Long: -82,13(30) Datum: NAD 83
SOII Map Unit Name: ShlZEI-Shcloctd-Latham association, S	NWI classification: N/A
Are climatic/hydrologic conditions on the slte typical for this time of year?	es No (If no, explain in Remarks)
Are Vegetation MD , Soil MO , or Hydrology Mo significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling	g point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes V No	
	pled Area within a Wetland?
	pled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Patu point taken in field along grave	d drive.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two securing)
Primary Indicators (minimum of one is required, check all that apply)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Ro	ots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction In Tilled Soils	(C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Geomorphic Position (D2) Shallow Aquitard (D3)
Water-Stained Leaves (89)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	lable:
Wetland hydrology Indicators are	3A3, C3, D2 and D5.
	A 1
	V 1

Tree Stratum	(Plot size: 30	Absolute) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1, None) <u>//8 COVEI</u>		Number of Dominant Species That Are CBL, FACW, or FAC: (A)
2.				
				Total Number of Dominant Species 2 Across All Strate: (B)
3				(b)
4				Percent of Dominant Species That Are OBL FACW, or FAC: (A/E
5. 6.				OBL. FACW, UI FAC.
7.				Prevalence Index worksheet:
		0	= Total Cover	Total % Cover of: Multiply by:
	(Plot size: 15"			OBL species x 1 =
Sapling/Shrub Stratum 1. NSNC	(Plot size:)		FACW species x 2 =
2				FACU species x 4 =
3.				UPL species x 5 =
4				Column Totals: (A) (B
5				Prevalence Index = B/A =
7.				FIEVAIIGIUGE TOTA
8				Hydrophytic Vegetation Indicators:
9				1 - Rapid Test for Hydrophytic Vegetation
10			- Total Occurs	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
			= Total Cover	4 - Morphological Adaptations (Provide supporting
Herb Stratum	(Plot size: 5)	200	data in Remarks or on a separate sheet)
1. Scirals atrovire	105		N Obl	Problematic Hydrophytic Vegetation ¹ (Explain)
2 Juncus CHUSUS		- 30	Fach	
3 Carex Iurida	NIC	- 45	N Fach	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 Scirpus cyper	h tor)		Tracky	Definitions of Vegetation Strata:
6.				
7				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
8				diameter.
9			-	
10, 11				Sapling/Shrub- Woody plants, excluding vines, less than 3 in
2.				DBH and greater than or equal to 3.28 ft (1 m) tell.
		80	= Total Cover	
				Herb - All herbaceous (non-woody) plants, regardless
Voody Vine Stratum	(Plot size: 30	1		of size, and woody plants less than 3.28 ft tall.
1. nmc	(1 101 0120,	'		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
2.				
3,				Woody Vines - All woody vines greater than 3.26 ft in
4				height.
6.				
		0	⊭ Total Cover	
				Hydrophytic
				Vegetation Present? Yes No
				1100 1100
Vegetation Remarks: (include photo	numbers here or on a sep	arate sheet).		
11 ()	14. domina	an tral	Description of	1 1-1
Hydrology passes	the downing	nac test	and labro	1 704

Depth	Matrix		Redox Featur				
(inches) Color (m		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
2-16 JOYR 4	41 90	104/23/6	101.		PL	Clayloam	
					1		
				7			
				-			
	-	-				-	
-					-		
		-			-		
	-						
-			-				
ype: C=concentration, D=De	epletion, RM=Reduce	ed Matrix, MS=Masked	Sand Grains.			² Location: PL=Pore L	ining, M=Matrix.
ydric Soil Indicators:						Indicators for Proble	matic Hydric Solls ³ :
Historial (A4)		David Confess #	27)			2 cm Muck (A10)	/MLRA 147)
Histosol (A1) Histic Epipedon (A2)		Dark Surface (\$	•	(MLRA 147	. 148)		dox (A16) (MLRA 147, 148)
Black Histic (A3)	-						plain Soils (F19)
Hydrogen Sulfide (A4)		Loamy Gleyed		,	(MLRA 136, 147)		
Stratified Layers (A5)		✓ Depleted Matrix					rk Surface (TF12)
2 cm Muck (A10) (LRR N))	Redox Dark Su				Other (Explain in	
Depleted Below Dark Surf	face (A11)	Depleted Dark	Surface (F7)				
Thick Dark Surface (A12)		Redox Depress	ions (F8)				
_ Sandy Mucky Mineral (S1)) (LRR N,	Iron-Manganes			ILRA 136)		
MLRA 147,148)		Umbric Surface			40)		
Sandy Gleyed Matrix (S4)		Piedmont Flood					
Sandy Redox (S5) Stripped Matrix (S6)		Red Parent Ma	teпаі (F21) (Mi	LRA 127, 14	· ()	100	
_ Stripped Watrix (30)							
³ Indicators of hydrophytic	vegetation and wetla	nd hydrology must be	present, unless	s disturbed o	or problems	atic.	
estrictive Layer (if observe	ed):						
Туре:					Hydr		
Depth (inches):					Soll Pre	sent? Yes _	No
	Meets F?						
il Description Remarks:	Meets +) .					
il Description Remarks:							
il Description Remarks:							
II Description Remarks:							
Il Description Remarks:							
il Description Remarks:							
oil Description Remarks:							
il Description Remarks:							
Il Description Remarks:							
il Description Remarks:							
Il Description Remarks:							

WETLAND DETERMINATION DATA FORM - Eastern N	lountains and Piedmont Region
Project/Site: Pinc Ridge - Heppiner city/county: Jacks	Sampling Date: 8 23 2017
Applicant/Owner:	State: OH Sampling Point:
(
	p, rionger Cooks 100p 1
Landform (hilslope, terrace, etc.): Subregion (LRR or MLRA): Lat 39, 0888614	22 12 25
	NWI classification: N/A
Soll Map Unit Name: Shizel-Sholocta-Latham association, stoop	
Are climatic/hydrologic conditions on the site typical for this time of year?	No (If no, explain in Remarks)
Are Vegetation no, Soll no, or Hydrology significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation 10, Soil 10, or Hydrology 10 naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
	within a Wetland? Yes No
Hydric Soll Present? Yes No Is the Sampled Area	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Data point taken in field.	ATI
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) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquetic Faune (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (Inches):	
Water Table Present? Yes No Depth (inches):	/
Saturation Present? Yes No Depth (inches): W	etland Hydrology Present? Yes No
(Includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Hydrology is not present.	

Sampling Point: WCC.7-UPL

Tree Stratum (Plot size:	30'	Absolute % Cover	Dominant Indica Species? Statu	
1. NSMC		_		Total Number of Dominant Species Across All Strate: (A)
3				Pericent of Dominant Species That Are OBL, FACW, or FAC: (A/I
W.000	15'		= Total Cover	Prevalence Index worksheet: Total % Cover of:
4		<u> </u>		Column Totals: (A) (B Prevalence Index = B/A =
10. Herb Stratum 1. Dactulis alameratu 2. Trifalium bratume 3. Daucus aratu 4. Ambrosia artemisitali 5. Erigeran annuus	5'	0	= Total Cover Y Fac Y Fac N Fac N Fac N Fac	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strate:
7. 8. 9.				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more diameter.
0		70	= Total Cover	Sapling/Shrub- Woody plants, excluding vines, less than 3 in DBH and greater than or equal to 3.28 ft (1 m) tall.
Oody Vine Stratum (Plot size:_	30')			Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2				Woody Vines - All woody vines greater than 3.28 ft in height.
6,		0	= Total Cover	Mudaanhadia
				Hydrophytic Vegetation Present? YesNo
Voland veg. 15 du		sheet).		-11
				- 5

Type: C-concentration, D-Depletion, RM-Reduced Metrix, MS-Masked Sand Grains. **Location: PL=Pore Lining, M-Matrix.** Indicators for Problematic Hydric Soils*: Histored (A1) Dark Surface (S7) Histored (A1) Dark Surface (S9) (MLRA 147, 148) Black Histor. (A2) Hydrogen Sulfide (A4) Loamy Glegod Metrix (F2) Set Muter (A10) (MR N) Depleted Metrix (F3) Depleted Below Dark Surface (F6) Depleted Below Dark Surface (F6) Depleted Below Dark Surface (F6) Depleted Seleow Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N) MLRA 1417, 489 Sendy Gleyod Matrix (G4) Sendy Gleyod Matrix (G4) Plethonor Floodplain Soils (F19) (MLRA 1435) Unro-Managenese Masses (F12) (LRR N, MLRA 136) MRA 1417, 149) Sendy Gleyod Matrix (G4) Plethonor Floodplain Soils (F19) (MLRA 148) Sandy Gleyod Matrix (G5) Red Parent Meterial (F21) (MLRA 147, 147) Stripped Metrix (G8) **Indicators of hydroghytic viegetation and wetland hydrology must be present, unless disturbed or problematib.* Best richive Layer (if observed): Type: Depth (Inches): Soil Present? Yes No		Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
dric Soll Indicators: Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F2) Com Muck (A10) (LRR N) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Umbric Surface (F13) (MLRA 148, 122) Sandy Redox (S5) Sandy Redox (S5) Red Parent Material (F21) (MLRA 147) Stripped Matrix (S6) Jandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Depth (inches): I Description Remarks:	16_	104R43	1007.					Sittleam	
dric Soll Indicators: Histosol (A1)		4-1				\equiv			
dric Soll Indicators: Histosol (A1)			:		_	_			
Aric Soll Indicators: Indicators for Problematic Hydric Solls*: Indicators for Problematic Hydric Hydri									
Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 147, 148) Polyvalue Below Surface (S9) (MLRA 147, 148) Piedmont Floodplain Soils (F19) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF12) Com Muck (A10) (LRR N) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) MLRA 147,148) Umbric Surface (F3) (MLRA 136, 122) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147) Stripped Matrix (S6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Strictive Layer (if observed): Type: Depth (inches): Piedmont Floodplain Soils (F19) (MLRA 127, 147) Hydric Soil Present? Yes No No No Piedmont Floodplain Soils (F19) Hydric Soil Present?	: C=concen	ntration, D=Depletion,	RM=Reduced	Vatrix, MS=Masked S	and Grains.			² Location: PL=Pore Lining, M=Matrix.	
Histic Epipedon (A2)	ic Soll Indic	ators:						Indicators for Problematic Hydric Solls	3.
MLRA 147,148)	Histic Epiped Black Histic (Hydrogen Su Stratified Lay 2 cm Muck (/ Depleted Bel Thick Dark S	don (A2) (A3) ulfide (A4) yers (A5) (A10) (LRR N) slow Dark Surface (A1	_	Polyvalue Below Thin Dark Surfac Loamy Gleyed Ma Depleted Matrix (Redox Dark Surfac Depleted Dark Surface Redox Depressio	Surface (S8) e (S9) (MLRA atrix (F2) (F3) ace (F6) urface (F7) ons (F8)	A 147, 148)		Coast Prairie Redox (A16) (MLRA 1- Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12)	47 , 1 48)
Type: Hydric Depth (inches): Soil Present? Yes No \ Description Remarks:	Sandy Gleye Sandy Redox	ed Matrix (S4) x (S5)		Umbric Surface (I	F13) (MLRA 1 Iain Soils (F1	1 36, 122) 9) (MLRA 1 -	48)		
Type: Hydric Depth (inches): Soil Present? Yes No_\ Il Description Remarks:	Indicators of	f hydrophytic vegetati	on and wetland	hydrology must be pr	esent, unless	disturbed o	r problema	Úc.	
Depth (inches): Soil Present? Yes No Description Remarks:	ictive Laye	er (if observed):							
	_	s):							<u> </u>
	escription		Soils n	ot present	1				
				7					

APPENDIX C Primary Headwater Habitat Evaluation (HHEI/QHEI) Data Forms



Chieff Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) :

LENGTH OF STREAM REACH (ft) 420.47 LA	Ridge - Heppiner The piner Basin 550600 2 0 8 0 5 DRAINAGE AREA (mi²) 0.02 AT. 31, 113172 LONG. 82.68 21.8 RIVER CODE RIVER MILE G1 COMMENTS Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
	RAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY
(Max of 40). Add total number of significant	type of substrate present. Check ONLY two predominant substrate TYPE boxes substrate types found (Max of 8). Final metric score is sum of boxes A & B. CENT TYPE PERCENT 35 SILT [3 pt] 35 LEAF PACKWOODY DEBRIS [3 pts] Substrate CLAY or HARDPAN [0 pt] 35 MUCK [0 pts] 35 ARTIFICIAL [3 pts] ARTIFICIAL [3 pts] (A) 3 TOTAL NUMBER OF SUBSTRATE TYPES:
	mum pool depth within the 61 meter (200 ft) evaluation reach at the time of liverts or storm water pipes) (Check ONLY one box):
COMMENTS 3.61/2.5 f4/	AVERAGE BANKFULL WIDTH (meters) This information must also be completed
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m	IN QUALITY
FLOW REGIME (At Time of Evaluati Stream Flowing Subsurface flow with isolated pools (I	Moist Channel, isolated pools, no flow (Intermittent)
None 🔯	10
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Fiat to Moderate	☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Salt LICK CREK (14+1e Salt CREK) Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
WAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order County: Township / City: NRCS Soil Map Stream Order
Base Flow Conditions? (Y/N): Date of last precipitation:
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:
BIOTIC EVALUATION Performed? (Y/N): Note: all voucher samples must be labeled with the lib 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:
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
brush down Immature 5001
logs torest
ava 9
Immature Forest

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

1	0
U	

DATE 2/7/17 SCORER B5 NOTE: Complete All Items On This	LAT. 3	PRIVER BASIN 050600020 9.11178 LONG. 587.6652 RICOMMENTS 500 To "Field Evaluation Manual fo	VER CODE_ r Ohio's PH	RIVER MILE	ructions
MODIFICATIONS:	NATURAL CH	IANNEL RECOVERED RE	COVERING	☐ RÉCENT OR NO REC	OVERY
(Max of 40). Add total number of s TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedro	PERCENT I	substrate present. Check ONL Y two ate types found (Max of 8). Final metri TYPE SILT [3 pt] LEAF PACKWOOD FINE DETRITUS [3 CLAY OF HARDPAN MUCK [0 pts] ARTIFICIAL [3 pts]	c score is sur Y DEBRIS [3 pts] [0 pt]	pts] (B)	HHE Metri Point Substra Max = 4
evaluation. Avoid plunge pools from > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	the maximum point road culverts of	PES: TOTAL NUMBER pool depth within the 61 meter (200 f or storm water pipes) (Check ONLY > 5 cm - 10 cm [15 < 5 cm [5 pts] NO WATER OR MO MAXIMUM P 13-4 measurements) (Check > 1.0 m - 1.5 m (> 3* ≤ 1.0 m (≤ 3* 3*) [5 pts]	it) evaluation one box); pts] DIST CHANN OOL DEPTH ck ONLY one	EL [0 pts] (centimeters):	Pool Dep Max = 3
COMMENTS	•	AVERAGE B	ANKFULL W	IDTH (meters)	2
RIPARIAN ZONE AND FLO RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	ODPLAIN QUA	Information must also be complete LITY ☆NOTE: River Left (L) and PLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture		looking downstream☆ Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	
FLOW REGIME (At Time of Stream Flowing Subsurface flow with isolated COMMENTS	pools (Interstitie	Moist Chann Dry channel,	no water (E	ools, no flow (Intermittent) phemeral)	
None 0.5 STREAM GRADIENT ESTIMATE	ds per 61 m (20 1.0 1.5	0 ft) of channel) (Check ONLY one in 2.0 2.5	oox):	3.0 3.3	

QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form) DOWNSTREAM DESIGNATED USE(S) Distance from Evaluated Stream 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 LOW USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream County: Township / City: Labout Township / Cit	ocation
CWH Name: Distance from Evaluated Stream Distance from Evalu	ocation
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA CLEARLY MARK THE SITE LOCUMENTS. USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream County: NRCS Soil Map Page: NRCS Soil Map Stream County: NRCS Soil Map Page: NRCS Soil Map Stream County: NRCS Soil Map Page: NRCS Soil Map Stream County: NRCS Soil Map Page: NRCS Soil Map Stream County: NRCS Soil Map Page: NRCS Soil Map Page: NRCS Soil Map Stream County: NRCS Soil Map Page: NR	Order
USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream County: Township / City: Library	Order
MISCELLANEOUS MISCELLANEOUS Date of last precipitation: SIGIP Quantity: 0.06 Photograph Information: Elevated Turbidity? (Y/N): Canopy (% open): 40 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:	
Base Flow Conditions? (Y/N): Date of last precipitation: SIGN OF Quantity: OF OF Date of last precipitation: SIGN OF	
Photograph Information: Elevated Turbidity? (Y/N): Canopy (% open): Were samples collected for water chemistry? (Y/N): Field Measures: Temp (°C) Dissolved Oxygen (mg/l) If not, please explain: Additional comments/description of pollution impacts:	
Photograph Information: Elevated Turbidity? (Y/N): Canopy (% open): (Note lab sample no. or id, and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) If not, please explain: Additional comments/description of pollution impacts:	
Photograph Information: Elevated Turbidity? (Y/N): Canopy (% open): (Note lab sample no. or id, and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) If not, please explain: Additional comments/description of pollution impacts:	
Elevated Turbidity? (Y/N): Canopy (% open): (Note lab sample no, or id, and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) If not, please explain: Additional comments/description of pollution impacts:	_
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id, and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) If not, please explain: Additional comments/description of pollution impacts:	_
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:	
Additional comments/description of pollution impacts:	
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 lable to number. Include appropriate field data sheets from the Primary Headwater Habital Assessment Mail Voucher? (Y/N)	inual)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be comple	eted):
Include Important landmarks and other features of interest for site evaluation and a narrative description of the stream	m's locatio
ites	
	<u>L</u>
	IN
FLOW C	5
7 5 -	-
FLOW TO THE TOTAL STATE OF THE T	1 W
E & C	10
	1.

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

SITE NUMBER 50 SITE N	uctions
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] GRAVEL (2-64 mm) [9 pts] GRAVEL (2-64 mm) [9 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	HHEI Metric Points Substrate Max = 40
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): > 30 centimeters [20 pts]	Pool Depth Max = 30 5 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 from the RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m	

	ERFORMED? - Yes No QHEI Score(If Ye	
	SALT LILE CALK THE	
CWH Name: _ EWH Name: _		Distance from Evaluated Stream Distance from Evaluated Stream
MAPPIN	IG: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATER	RSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle	Name: JACKSON 1978 NRCS SOIL	Map Page: NRCS Soil Map Stream Order
County:	Duckson Co Township/City.	Cibuty TWP
MISCEL	LANEOUS WAY 9/4/15	
Base Flow Condition	ons? (Y/N): Date of last precipitation:	Quantity: 0 , 06
Photograph Inform		
Elevated Turbidity?		
Were samples coll	ected for water chemistry? (Y/N): (Note lab sample no.	
Field Measures:		
is the sampling rea	ch representative of the stream (Y/N) // If not, please expla	in:
-	V	
Additional commen	ts/description of pollution Impacts:	
	EVALUATION	
Performed? (Y/N):	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvertical Control of Control o	(N) Voucher? (Y/N)
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvertical Control of Control o	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N)
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvertical Control of Control o	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N)
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles Comments Regard	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvering Biology: WING AND NARRATIVE DESCRIPTION OF STREET	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N) Voucher? (Y/N) riebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This must be completed):
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles Comments Regard	(If Yes, Record all observations. Vaucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvering Biology:	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N) Voucher? (Y/N) riebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This must be completed):
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles Comments Regard	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvering Biology: WING AND NARRATIVE DESCRIPTION OF STREET	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N) Voucher? (Y/N) riebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This must be completed):
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles Comments Regard	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvering Biology: WING AND NARRATIVE DESCRIPTION OF STREET	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N) Voucher? (Y/N) riebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This must be completed):
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles of Comments Regards DRA Include Impo	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvering Biology: WING AND NARRATIVE DESCRIPTION OF STREET	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N) Voucher? (Y/N) riebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This must be completed):
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles Comments Regard	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvering Biology: WING AND NARRATIVE DESCRIPTION OF STREET	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N) Voucher? (Y/N) riebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This must be completed):
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles of Comments Regards DRA Include Impo	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from No. Voucher? (Y/N) Salamanders Observed? (Y/Observed? (Y/N) Aquatic Macroinvering Biology: WING AND NARRATIVE DESCRIPTION OF STREE ortant landmarks and other features of interest for site evaluations.	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N) Voucher? (Y/N) riebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This must be completed):
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles of Comments Regards DRA Include Impo	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvering Biology: WING AND NARRATIVE DESCRIPTION OF STREET	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N) Voucher? (Y/N) riebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This must be completed):
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles of Tadpoles	(If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from No. Voucher? (Y/N) Salamanders Observed? (Y/Observed? (Y/N) Aquatic Macroinvering Biology: WING AND NARRATIVE DESCRIPTION OF STREE ortant landmarks and other features of interest for site evaluations.	the Primary Headwater Habitat Assessment Manual) (N) Voucher? (Y/N) Voucher? (Y/N) riebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This must be completed):



1		
1	M	
137	1	

TREAM C	HANNEL NONE	Property leading 50	O "Field Evaluation Manual f	out the same of	NO - YOU PERSON NAMED IN	-
(Max		PERCENT	ubstrate present. Check ONLY to types found (Max of 8). Final met TYPE SILT [3 pt] LEAF PACKWOO FINE DETRITUS [CLAY or HARDPA MUCK [0 pts] ARTIFICIAL [3 pts	ric score Is sum of DY DEBRIS [3 pts [3 pts] N [0 pt]	PERCENT	HHE Metri Point Substra Max = 4
Maxis evalu 3 > 30 c 3 > 22.5		maximum pod	of depth within the 61 meter (200 storm water pipes) (Check ONL > 5 cm - 10 cm [1 < 5 cm [5 pts] NO WATER OR I	Y one box): 5 pts]	ch at the time of	Pool Dep Max = 3
	MENTS		MUMIXAMMAXIMUM			
> 4.0 m > 3.0 m > 1.5 m	(FULL WIDTH (Measured as t neters (> 13') [30 pts] n - 4.0 m (> 9' 7" - 13') [25 pts] n - 3.0 m (> 4' 8" - 9' 7") [20 pts]	Sec. 1. 19		eck <i>ONLY</i> one bo 3'3" - 4'8") [15 pts i pts]	ox):	Bankful Width Max=30
> 4.0 m > 3.0 m > 1.5 m	(FULL WIDTH (Measured as to neters (> 13') [30 pte] to -4.0 m (> 9' 7" - 13') [25 pte] to -3.0 m (> 4' 8" - 9' 7") [20 pte] WENTS	This ir	AVERAGE AVERAGE Tormation must also be comple TY \$\frac{1}{2}\triangle \triangle \t	eck ONLY one bo 3'3" - 4'8") [15 pts i pts] BANKFULL WIDT	ox): s) I'H (meters)	Width
> 4.0 m > 3.0 m > 1.5 m	(FULL WIDTH (Measured as to teles (> 13') [30 pts] 1 - 4.0 m (> 9' 7" - 13') [25 pts] 1 - 3.0 m (> 4' 8" - 9' 7") [20 pts] WENTS RIPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide > 10 m	This in DPLAIN QUALI FLOODPI	4 measurements) (Chu > 1.0 m - 1.5 m (> 1.0 m (s 3'3') [i AVERAGE	BANKFULL WIDT	ox): s) I'H (meters)	Width
> 4.0 m > 3.0 m > 1.5 m	(FULL WIDTH (Measured as to telers (> 13') [30 pte] 1 - 4.0 m (> 9' 7" - 13') [25 pte] 1 - 3.0 m (> 4' 8" - 9' 7") [20 pte] WENTS RIPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide >10 m Moderate 5-10 m Narrow <5 m	This ir DPLAIN QUALI FLOODPI L R	AVERAGE AVERAGE AVERAGE AVERAGE AVERAGE AVERAGE AVERAGE ANOTE: River Left (L) an AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	BANKFULL WIDT	in (meters) I'H (meters) king downstream Conservation Tillage	Width

	INFORMATION (This Information Must Also be Completed):
QHEI PERFOR	RMED? - Tyes No QHEI Score(If Yes, Attach Completed QHEI Form)
DOWNSTREAM	AM DESIGNATED USE(S) So 14 Lich Cow K Distance from Evaluated Stream 0.09 m
	Distance from Evaluated Stream
LJ EWH Name:	Distance from Evaluated Stream
	TTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name	e: DUCKSON 1975 NRCS Soll Map Page: NRCS Soll Map Stream Order
County: Suc	-165 DN CO TOWNShip/City. Libert Y TVP
MISCELLANEO	ious . ,
	(Y/N): Date of last precipitation: 8/4/15 Quantity: 0.06
Base Flow Conditions? (Y	Y/N): V / Date of last precipitation: Quantity: D. D. Quantity: D. D. Quan
Photograph Information.	
Elevated Turbidity? (Y/N):): Canopy (% open); 0
	for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
-	
	pp (°C) Dissolved Oxygen (mg/l) pH (S,U,) Conductivity (μmhos/cm)
is the sampling reach repr	presentative of the stream (Y/N) If not, please explain:
-	11
Additional comments/desc	scription of pollution impacts:
Performed? (Y/N): Fish Observed? (Y/N) Frogs or Tadpoles Observ Comments Regarding Bio	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
D.D.A.MANA	A U.S. MARTINE DESCRIPTION OF OTDER HIPERON (This rough he completed):
	GAND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
	landwarks and other features of interest for site evaluation and a narrative description of the stream's incarion
Include Important	landmarks and other features of interest for site evaluation and a narrative description of the stream's location
Include Important	Manufacture and other learning of likeless for site examental and a light and describing of the arresing stocator
Include Important	Tailulians and striat learning of likeless for site evaluation and a man attended of the stream's location
Include Important	Tailulians and striat learning of likeless for site examental and a light after description of the streams location
Include Important	Tailulians and striat learning of likeless for site evaluation and a man attended description of the stream stocaton
200	Tailulians and striat leadings of filterest for site evaluation and a fight attive description of the stream's focation
200	Tailulians and striat leadings of like less for site evaluation and a man attended description of the stream's location
200	Tallitans and street leadings of like less for size availation and a main attended to street in
200	Tailulians and strict leadings of likeless for size evaluation and a main attended to the stream's location
Include Important	The state of the s
200	The state of the s

1000 V

r	
	1 -
ш	1/2
	10

DATE 17/17 SCORER BSW/ NOTE: Complete All Items On This Fo	RIVER BASIN 0506000000 DRAINAGE AREA (mi²) 0. LAT. 39.111311 LONG. 32.6965 RIVER CODE RIVER MILE COMMENTS Orm - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVE	tions
MODIFICATIONS:		Page 1
(Max of 40). Add total number of signifi	PERCENT SILT [3 pt] LEAF PACKWOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts]	HHEI Metric Points Substrate Wax = 40
	coad culverts or storm water pipes) (Check ONLY one box):	Bankfull Width
RIPARIAN ZONE AND FLOODI RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	This Information must also be completed DPLAIN QUALITY	
FLOW REGIME (At Time of Eva Stream Flowing Subsurface flow with isolated poor COMMENTS SINUOSITY (Number of bends p	per 61 m (200 ft) of channel) (Check ONLY one box):	
None 0.5 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	1.0	

ADDITIONAL ST	TREAM INFORMATION (This Information Must Also be Completed):
QHEI	PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWN	NSTREAM DESIGNATED USE(S)
Am	little Salt Creek Salt Lick CVak Distance from Evaluated Stream 0-04
CWH Name:	
Agreement 6	
	PING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
	gle Name: NRCS Soil Map Page: - NRCS Soil Map Stream Order
County:	Liberty Tup
	ELLANEOUS
Base Flow Condi	ditions? (Y/N): 4 Date of last precipitation: 149/17) Quantity: 06
Photograph Infor	//
Elevated Turbidit	ity? (Y/N): N Canopy (% opgn): 30
Were samples co	collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures:	
	reach representative of the stream (Y/N)/// If not, please explain:
is the sampling re	each representative of the stream (TNN) Trinot, please explain.
	V
Additional comme	nents/description of pollution impacts:
Performed? (Y/N)	ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
DRA	AWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
	nportant landmarks and other features of interest for site evaluation, and a narrative description of the stream's location
	1 let -, mor/oll till
	West 1
	Soviet
•	X.
FLOW	Pl 1 (. (do of 51)
	The state of the s
	OD OD
Tin	No. 1 SOFE
	11 11 200

20	7
39	
	39

DATE STREAM		R RIVE LAT. 39, 10912 COMMENT Form - Refer to "Field	R BASIN SCIO 0 LONG. 82,68 36.RI S SOH - KLV-0	VER CODE OO \ r Ohio's PHW	RIVER MILE	uctions
1. SI (M	BLDR SLABS [16 pts] BULDER (>256 mm) [16 pts] BUDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of Ir Slabs, Boulder, Cobble, Bedroc	PERCENT TYPE	ound (Max of 8), Final metri SILT [3 pt] LEAF PACKWOOD FINE DETRITUS [3] CLAY or HARDPAN	c score is sum Y DEBRIS [3 pt pts] [0 pt]	of boxes A & B. PERCENT (B)	HHEI Metric Points Substrate Max = 40
2. Ma eve > 30 > 22 > > 10	oximum Pool Depth (Measure the sluation. Avoid plunge pools from 0 centimeters [20 pts] 2.5 - 30 cm [30 pts] 0 - 22.5 cm [25 pts]	e maximum pool depth	within the 61 meter (2001) Iter pipes) (Check ONLY >5 cm - 10 cm [15 <5 cm [5 pts] NO WATER OR MK	(t) evaluation re one box): pts]	ach at the time of	Pool Dept Max = 30
>4.0 >3.0 >1.6	NK FULL WIDTH (Measured as) meters (> 13') [30 pts]) m - 4.0 m (> 9' 7" - 13') [25 pts] i m - 3.0 m (> 4' 8" - 9' 7") [20 pts] MMENTS	of Memory	> 1.0 m - 1.5 m (> 3 1.0 m (≤ 3'3") [5]		(s)	Bankfull Width Max=30
	☐ Moderate 5-10m ☐ Naπow <5m	DDPLAIN QUALITY FLOODPLAIN QU L R (Most Prince of the control of	redominant per Bank) Forest, Wetland e Forest, Shrub or Old tial, Park, New Field Pasture		oking downstream☆ Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	
00	Stream Flowing Subsurface flow with isolated p COMMENTS SINUOSITY (Number of bend None 0.5	pools (interstitial)	Moist Chann Dry channel	, no water (Epi	ols, no flow (Intermittent) hemeral) 3.0 >3	

ADDITIONAL STREAM INFORMATION (This Information	on Must Also be Completed):
	El Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	reek (1+16 Salt (reek) Distance from Evaluated Stream 0.15 miles
CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream
D EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLU	JOING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Jackson, Ot	NRCS Soil Map Page: NRCS Soll Map Stream Order
	Township/city Liberty Township
	Township / City,
MISCELLANEOUS	8/1/201 25
Base Flow Conditions? (Y/N): Date of last preci	Spitation: 8/7/2017 Quantity: .25°
Photograph Information:	
Elevated Turbidity? (Y/N): Canopy (% ope	en):
Vere samples collected for water chemistry? (Y/N): N	(Note lab sample no, or id, and attach results) Lab Number
Field Measures: Temp (°C) Dissolved Oxyger	en (mg/l) pH (S.U.) Conductivity (µmhos/cm)
	If not, please explain:
the sampling reach representative of the should (1993_	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations)	ations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site
ID number. Include approp	priate field data sheets from the Primary Headwater Habitat Assessment Manual)
Ish Observed? (Y/N) N Voucher? (Y/N) N Sa	relamanders Observed? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N
는 사용하게 없는 사용하게 되었다. "COLD 나는 원하는 "이 없는 기계하는 전혀, "COLD 다 나오는 "이 없는	
Comments Regarding Biology	
DRAWING AND NARRATIVE DES	SCRIPTION 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
~)()	
() / 7	Transmission
() 4 4	Transmission
	POW O
LOW	Trunchia
0	Fried Hand
(')	1 Jord
(< 1 ,)	
1)(
	PHWH Form Page - 2



DATE 8 62 201 SCORER VIV	RIVER BASIN SCIOTO RIVE LAT. 39,10664 LONG. 82,67618 RIVER COMMENTS SOH-KLV-006	2
	m - Refer to "Field Evaluation Manual for Or	
(Max of 40). Add total number of signific		PERCENT PERCENT PERCENT POINTS Substrate
2. Maximum Pool Depth (Measure the mevaluation. Avoid plunge pools from road > 30 centimeters [20 pts] 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	aximum pool depth within the 61 meter (200 ft) evid culverts or storm water pipes) (Check ONLY one > 5 cm - 10 cm [15 pts] NO WATER OR MOIST	box): Max = 30
COMMENTS	MAXIMUM POOL	DEPTH (centimeters):
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	average of 3-4 measurements) (Check O. > 1.0 m - 1.5 m (> 3' 3"- ≤ 1.0 m (≤ 3' 3") [5 pts]	Wax=30
	This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODP	LAIN QUALITY ANOTE: River Left (L) and Rigi	ht (R) as looking downstream☆
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m	L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	L R Conservation Tillage Urban or Industrial
Narrow <5m None COMMENTS	Field Residential, Park, New Field Fenced Pasture	Open Pasture, Row Crop Mining or Construction
FLOW REGIME (At Time of Evalue) Stream Flowing Subsurface flow with isolated pools COMMENTS	Moist Channel, is	solated pools, no flow (Intermittent) water (Ephemeral)
	1.0 (Check ONLY one box) 1.0 2.0 1.5 2.5	3.0
STREAM GRADIENT ESTIMATE Flat (0 5 h/100 ft) Flat to Moderate	☐ Moderate (2 №100 元) Moderate to Se	evere Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be C	
QHEI PERFORMED? - Tyes No QHEI Score	_(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Salt Lick Creek (1:1+1)	e Salt Creek Distance from Evaluated Stream 0.05 miles
_	Distance from Evaluated Stream Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
D EWH Name:	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE	
	CS Soil Map Page: NRCS Soil Map Stream Order
County: Jackson Co. Township	city_ Liberty Township
MISCELLANEOUS	1
Base Flow Conditions? (Y/N): Date of last precipitation: 8	[201] Quantity: 25"
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 30 1.	
Nere samples collected for water chemistry? (Y/N): (Note lab samp	ple 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 reach representative of the stream (Y/N) If not, pleas	se explain:
5 and startpling retain representative of the stream (1711) 3	
Sec. 1	
Performed? (Y/N): (If Yes, Record all observations. Voucher colle ID number. Include appropriate field data sheet ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Maccomments Regarding Biology	croinvertebrates 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	
\sim	
/ / / Transmi	SSION ROW
()	PEMILLAND
4/4/	Wetter 1
	The state of the s
LOW	XXX
$\sim \sim \sim$	
	Two-
CNOSTON <	1002
(10)	7
\sim / \ /	
PHWH Form	

ir	-	-
n	01	1
u	24	1
и	0	

The state of the s	COMMENTS SOH-KLV-03	
NOTE: Complete All Items On This F	Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ctions
STREAM CHANNEL NONE / I	NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING	ÆRY
MODIFICATIONS.		
(Max of 40). Add total number of sign	every type of substrate present. Check ONLY two predominant substrate TYPE boxes nificant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT SILT [3 pt]	HHEI Metric Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	LEAF PACKWOODY DEBRIS [3 pts] (U)	Substrat
COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts]	CLAY or HARDPAN [0 pt] O MUCK [0 pts]	Max = 40
SAND (<2 mm) [6 pts]	CO	19
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SU		A + B
2. Maximum Pool Depth (Measure the	e maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dap
	road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	S.cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
BANK FULL WIDTH (Measured as t		Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
		W(322.30)
> 1.5 m - 3.0 m (> 4'8" - 9'7") [20 pts]		Max=30
> 1.5 m - 3.0 m (> 4'8" - 9'7") [20 pts]	AVERAGE BANKFULL WIDTH (meters)	20
> 1.5 m - 3.0 m (> 4'8" - 9'7") [20 pts]	AVERAGE BANKFULL WIDTH (meters)	20
> 1.5 m - 3.0 m (> 4'8" - 9'7") [20 pts]	AVERAGE BANKFULL WIDTH (meters) This information <u>must</u> also be completed	ZO
> 1.5 m - 3.0 m (> 4'8"-9'7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOO RIPARIAN WIDTH L. R. (Per Bank)	This Information must also be completed DDPLAIN QUALITY	20
COMMENTS	This information must also be completed DPLAIN QUALITY	20
COMMENTS RIPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m	This Information must also be completed DDPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland I Mature Forest, Wetland I Conservation Tillage Immature Forest, Shrub or Old Field Residential Park New Field Open Pasture, Row	20
COMMENTS RIPARIAN ZONE AND FLOO RIPARIAN WIDTH L R (Per Bank) Wide >10m	This information must also be completed DDPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field OVERAGE BANKFULL WIDTH (meters) L R Conservation Tillage Urban or Industrial	20
RIPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS High	This information must also be completed ODPLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Residential, Park, New Field Fenced Pasture Winling or Construction Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	20
RIPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of E) Stream Flowing Subsurface flow with isolated p COMMENTS SINUOSITY (Number of bend-	This information must also be completed ODPLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Residential, Park, New Field Fenced Pasture Winling or Construction Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	20

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed)	<u>):</u>
QHEI PERFORMED? - Yes No QHEI Score(If Yes, A	ttach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) SWWH Name: Salt Lick Creek (11+1/2 Salt Creek) CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHI	ED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Jackson, OH NRCS Soil Maj	
County: Covership / City	L T I
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation: 8 17 2017	Quantity: 125
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 25	
Vere samples collected for water chemistry? (Y/N): (Note lab sample no. or lo	d. and attach results) Lab Number:
field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	
s the sampling reach representative of the stream (Y/N).	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
	onal. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the	
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aqualic Macroinverteb	Drates Observed? (Y/N) Voucher? (Y/N)
comments Regarding Biology:	
*	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM	M REACH (This must be completed):
include important landmarks and other features of interest for site evaluation	
Highway 35	
4 11	
Name of the last o	
ELOW -	· · · · ·
	Transmostor
	Modern V
My Marosted	Transmostor (
7 Travested	ROW (
3 () Travested >	ROW

ir	-	٦
ı	110	ı
ı	40	ı
V.	40	

LENGTH OF STREAM REACH (ft) 180 DATE 8 22 201 SCORER	LAT. 39,10512 LONG: 82.67250 F COMMENTS SOH-KLV-	RIVER DRAINAGE AREA (mi²) 0, 22 the RIVER MILE RIVER MILE
NOTE: Complete All Items On This Fo	orm - Refer to "Field Evaluation Manual fo	or Ohio's PHWH Streams" for Instructions
STREAM CHANNEL SONONE / MODIFICATIONS:	NATURAL CHANNEL RECOVERED RE	ECOVERING TRECENT OR NO RECOVERY
	LEAF PACKWOOD FINE DETRITUS [CLAY OF HARDPA CLAY OF HARDPA MUCK [0 pts] ARTIFICIAL [3 pts (A)	Tric score is sum of boxes A & B. PERCENT PERCENT POINT Substra Max = 4 (B) A + B
Maximum Pool Depth (Measure the	e maximum pool depth within the 61 meter (200 road culverts or storm water pipes) (Check ONL > 5 cm -10 cm [1	Yone box): Max = 3 fo pts] MOIST CHANNEL [0 pts]
COMMENTS	MAXIMUM	POOL DEPTH (centimeters):
> 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]	> 1.0 m - 1.5 m (> ☐ ≤ 1.0 m (≤ 3°37) ∯	Bankfu Width (meters) BankFull WiDTH (meters) Bankfull Width
RIPARIAN ZONE AND FLOOI		ated nd Right (R) as looking downstream☆
RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m	L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field	L R ☐ Conservation Tillage ☐ Urban or Industrial
□ □ Narrow <5m □ □ None □ □ None	Residential, Park, New Field Fenced Pasture	Open Pasture, Row Crop Mining or Construction
FLOW REGIME (At Time of Ex Stream Flowing Subsurface flow with isolated po COMMENTS		annel, isolated pools, no flow (Intermittent) nel, no water (Ephemeral)
SINUOSITY (Number of bends None 0.5	s per 61 m (200 ft) of channel) (Check <i>ONLY</i> on 1.0 2.0 2.5	ne box):
	2 2.0	

ADDITIONAL STR	REAM INFORMATION (This Information Must Also be Completed):
QHEI PE	ERFORMED? - Tyes No QHEI Score(If Yes, Attach Completed QHEI Form)
DOWNS C-WWH Name: CWH Name: EWH Name:	
MAPPIN	NG: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrengle	Name: Dackson, OH NRCS Soil Map Page: NRCS Soil Map Stream Order Liberty Township
MISCELI	LANEOUS
	ons? (Y/N): Date of last precipitation: 8/17/2017 Quantity: 425"
Flewated Turbidity?	? (Y/N): N Canopy (% open): 20'/.
	lected for water chemistry? (Y/N): Note lab sample no. or id, and attach results) Lab Number:
Field Measures:	
	ach representative of the stream (Y/N) If not, please explain:
is the sampling rea	100 representative of the stream (17/4)
	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	(Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N
Comments Regardi	
-	
DRA	WING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
	portant landmarks and other features of interest for site evaluation and a narrative description of the stream's location
	(Immarive)
	(Ferest)
FLOW	
	3 2 open sield
	S Over
	The state of the s



Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score:	50

	AEP Pinc Ridge-Ho	appner		RM:	_,_ Date: <u>8</u> _/	22/1
S011			ull Name & Affilia			
River Code:	STORET		Lat./Long.:39.	1045 182.	6706	ffice verified location
1] SUBSTRATE Chec	k ONLY Two substrate TYP nate % or note every type pr	E BOXES:		Check ONE (Or 2 &	average)	
REST TYPES	POOL RIFFLE OTHE	R TYPES POOL R	ODIO		QUALITY	
☐ ☐ BLDR /SLABS [10]	D HAT	RDPAN [4]	LIMESTON	E [1]	☐ HEAVY [-2]	n
☐ ☐ BOULDER [9]	DET	TRITUS [3]	IO TILLS[1]	SILT	☐ MODERATE [-	1] Substr
COBBLE [8]			WETLANDS	5 [0]	NORMAL [0]	
GRAVEL [7]		The second second second	HARDPAN ⊠ SANDSTON	[0]	FREE [1]	20 14
☐		TIFICIAL [0] core natural substrates;		I OF DOEDN.	☐ EXTENSIVE [-	
	TYPES: 4 or more [2]		urces) LACUSTUR	EINE TOTAL	NORMAL IN	IVIGAIIII
	☑ 3 or less [0]		SHALE [-1]		MODERATE [- MODERATE [- NORMAL [0] NONE [1]	20
Comments			COAL FINE	S [-2]		
The tenders of the contract of	R Indicate presence 0 to 3: quality; 2-Moderate amo	ounts, but not of highe	st quality or in small ar	mounts of highest	711100111	
quality; 3-Highest quality is	in moderate or greater amo , well developed rootwad in	unts (e.g., very large	boulders in deep or fas	st water, large	Check ONE (Or 2 & EXTENSIVE >75%	0 /
UNDERCUT BANK	S [1] P	OOLS > 70cm [2]	OXBOWS, BACK	(WATERS I11 [MODERATE 25-7	
O OVERHANGING VE	NOTE OF THE PROPERTY OF THE PR	OOTWADS [1]	AQUATIC MACR		SPARSE 5-<25%	
		OULDERS [1]	LOGS OR WOOL		NEARLY ABSENT	
P ROOTMATS [1]	TRANSPORT OF THE PARTY OF THE P	£:			Co	ver C
Comments					Maxin	num 2
3] CHANNEL MORPH	OLOGY Check ONE in e	each category (Or 2 &	average)	-		
		ANNELIZATION	STABILI	TY		
	XCELLENT [7] X NON	E [6]	☐ HIGH [3]			
		OVERED [4]	MODERA	TE [2]		
		OVERING [3]	☐ LOW [1]		Cha	
□ NONE [1] □ P Comments	POOR [1] REC	ENT OR NO RECOV	ERY [1]		Chai Maxin	1.1
Comments					Maxiii	20
41 BANK FROSION A	AND RIPARIAN ZONE	Check ONE in each	category for EACH BA	NK (Or 2 per hank	& 21/2/2/20)	
River right looking downstrea	RIPARIAN WI		FLOOD PLAIN Q		a average,	
LR EROSION	☐ ☐ WIDE > 50m [4]	FORE	EST, SWAMP [3]		ONSERVATION TIL	LAGE [1]
NONE / LITTLE [3]	MODERATE 10-50	0m [3] 🔲 🗆 SHRL	JB OR OLD FIELD [2]		IRBAN OR INDUST	RIAL [0]
☐ MODERATE [2]	□ □ NARROW 5-10m	[2] \square RESII	DENTIAL, PARK, NEW	FIELD [1]	MINING / CONSTRUC	CTION [0]
☐ HEAVY / SEVERE [1]	VERY NARROW		ED PASTURE [1]	Indicate	predominant land us	e(s)
0	□ □ NONE [0]	□ □ OPEN	PASTURE, ROWCR	OP [0] past 10	Óm riparian. Ripa	
Comments					Maxim	num 10
	D RIFFLE / RUN QUA		a Museum	(2)6.7	Description .	
MAXIMUM DEPTH	CHANNEL W		CURRENT VELO	20 C J	Recreation Pot	2000000
Check ONE (ONLY!) ☐ > 1m [6]	Check ONE (Or 2 &		Check ALL that ap		Primary Con	The state of the s
0.7-<1m [4]	POOL WIDTH > RIFFLE		RENTIAL [-1] SLO		Secondary Co	ntact
□ 0.4<0.7m [2]	POOL WIDTH > RIFFLE			ERSTITIAL [-1] ERMITTENT [-2]	(circle one and comment	on back)
□ 0.2<0.4m [1]			DERATE [1] DEDD		De	ol/
< 0.2m [0]		In	dicate for reach - pools		Curi	
Comments			Martin Adecasi Astron		Maxin	/
	tional riffles; Best are	eas must be lard	ge enough to sup	port a populat	ion	12
of riffle-obligate	species:	Check ONE (Or 2		Lance Laboration	□ NO RIFFL	E [metric=0
RIFFLE DEPTH	RUN DEPTH	RIFFLE / RU	IN SUBSTRATE	RIFFLE / RUN	EMBEDDEDNE	ESS
BEST AREAS > 10cm [2]		2] STABLE (e.g.,	Cobble, Boulder) [2]	□ NO	ONE [2]	
BEST AREAS 5-10cm [1]	MAXIMUM < 50cm [1] MOD. STABLE	(e.g., Large Gravel) [1] □LC	OW [1]	
BEST AREAS < 5cm [metric=0]		UNSTABLE (e.	g., Fine Gravel, Sand)		DOCTONIE [0]	file / 2
Comments				□ E)	TENSIVE [-1] Maxin	
GRADIENT	ft/mi) VERY LOW - I	OW (2.4)	W2001 (1	1)		
DRAINAGE AREA		6-10]	%POOL:	%GLIDE	Grad Maxim	1

0.5 Km CLARITY E 0.2 Km 1stsample pass 2nd NU 0.15 Km 20 cm INV E 0.15 Km 20-<40 cm INV 0.12 Km 0.12 Km	BJ AESTHETICS NUISANCE ALGAE INVASIVE MACROPHYTES EXCESS TURBIDITY DISCOLORATION FOAM / SCUM OIL SHEEN UITTER NUISANCE ODOR SLUDGE DEPOSITS CSOS/SSOS/OUTFALLS ATION AREA DEPTH POOL: >100ft2 >3ft	D] MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG-SUCCESSION-OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING-BEDLOAD-STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE	Circle some & COMMENT	WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPS-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H ₂ 0 / TILE / H ₂ 0 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	F] MEASUREMENTS x width x depth max. depth x bankfull width bankfull x depth W/D ratio bankfull max. depth floodprone x² width entrench. ratio Legacy Tree:
Stream Drawing:	The state of the s	Transmission Zaw Should		1 thirst	
3/2/	3/1				3/
Final					

	This Form - Refer to "Field Evaluation Manual fo	or Ohlo's PHWH Streams" for Instructions
STREAM CHANNEL ZIN MODIFICATIONS:	ONE / NATURAL CHANNEL	ECOVERING TRECENT OR NO RECOVERY
	pts]	HHE Metr Percent (A) DY DEBRIS [3 pts] 3 pts] N [0 pt]
CORE OF TWO MOST PREDOMINA	TE SUBSTRATE TYPES: TOTAL NUMB	ER OF SUBSTRATE TYPES:
	ure the maximum pool depth within the 61 meter (200 from road culverts or storm water pipes) (Check ONL	Y one box): Max = :
> 22.5 - 30 cm [38 pts] > 10 - 22.5 cm [25 pts]	>5cm - 10 cm [16] <5cm [5pts] NO WATER OR N	5 pts] OIST CHANNEL [0 pts]
> 22.5 - 30 cm [38 pts] > 10 - 22.5 cm [25 pts] COMMENTS	<pre></pre>	Committee of the Commit
> 22.5 - 30 cm [38 pts] > 10 - 22.5 cm [25 pts] COMMENTS		POOL DEPTH (centimeters): Bankfu Width
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	<pre></pre>	POOL DEPTH (centimeters): Bankfu Width BANKFULL WIDTH (meters)
> 22.5 - 30 cm [38 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measure) > 4.0 meters (> 13") (30 pts) > 3.0 m - 4.0 m (> 3"7" - 13") [25 pts] COMMENTS COMMENTS RIPARIAN ZONE AND	Som [5 pts] NO WATER OR N	POOL DEPTH (centimeters): Bankfu Width BANKFULL WIDTH (meters)
> 22.5 - 30 cm [38 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measure) > 4.0 meters (> 13") [30 pts] > 3.0 m - 4.0 m (> 3"7" - 13") [25 pts] COMMENTS RIPARIAN ZONE AND RIPARIAN WIDTH L. R. (Per Bank)	AVERAGE This Information must also be completed by the Code plan of the C	POOL DEPTH (centimeters): Bankfull Width (meters) Bankfull Width (meters) L R
> 22.5 - 30 cm [38 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measure) > 4.0 meters (> 13") [30 pts] > 3.0 m - 4.0 m (> 3"7" - 13") [25 pts] COMMENTS RIPARIAN ZONE AND RIPARIAN WIDTH L R, (Per Bank)	AVERAGE This information must also be completed in the complete of the comp	POOL DEPTH (centimeters): Bankfuck ONLY one box): 3'3'-4'8') [15 pts] BANKFULL WIDTH (meters) ted d Right (R) as looking downstream.
> 22.5 - 30 cm [38 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measure > 4.0 meters (> 13") [30 ptn] > 3.0 m - 4.0 m (> 3"7" - 13") [25 > 1.5 m - 3.0 m (> 4"8" - 3"7") [3 COMMENTS RIPARIAN ZONE AND RIPARIAN WIDTH L R (Per Bank) Wide > 10 m	Som [5 pts] NO WATER OR N MAXIMUM In the average of 3-4 measurements) (Che	POOL DEPTH (centimeters): Bankfuck ONLY one box): 3'3'-4'8') [15 pts] BANKFULL WIDTH (meters) L R Conservation Tiliage Urban or Industrial Open Pasture, Row
> 22.5 - 30 cm [38 pts] > 10 - 22.5 cm [25 pts]	AVERAGE This information must also be comple FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Shrub or Old Field AVERAGE AVERAGE AVERAGE AVERAGE Mature Forest, Shrub or Old Field	POOL DEPTH (centimeters): Bankfu Width Maxes BANKFULL WIDTH (meters) L R Conservation Tiliage Urban or Industrial
> 22.5 - 30 cm [38 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measure > 4.0 meters (> 13') (30 pts) > 3.0 m - 4.0 m (> 3'.7' - 13') [25 pts] COMMENTS COMMENTS RIPARIAN ZONE AND RIPARIAN WIDTH R. (Per Bank) Wide > 10 m Marrow < 5 m None COMMENTS	AVERAGE	BANKFULL WIDTH (meters) L R Conservation Tiliage Urban or Industrial Open Pasture, Row Crop

DOWNS	ERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
_	STREAM DESIGNATED USE(S)
∠X (WWH Name: _	STREAM DESIGNATED USE(S) K (reek (11+18 Salt (reek) Distance from Evaluated Stream 0, 25 ml/es
	Distance from Evaluated Stream
☐ EWH Name:_	Distance from Evaluated Stream
MAPPH	IG: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle	Name: Jackson, OH NRCS Soil Map Page: NRCS Soil Map Stream Order
County: 30	CKSIM Co. Township/City. Liberty Township
	LANEOUS
- 1	0/17/2017 25"
Base Flow Conditi	ons? (Y/N): Date of last precipitation; O 1 1 Quantity. 1010
Photograph Inform	
Elevated Turbidity	(Y/N): N Canopy (% open): 20 /.
Were samples coll	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)
is the sampling rea	ich representative of the stream (Y/N) If not, please explain:
-	
-	
RIOTIC	EVALUATION
-	EVALUATION
BIOTIC Performed? (Y/N):	(If Yes Record all observations, Voucher collections optional, NOTE; all voucher samples must be labeled with the site
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)
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) NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles	(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) N) Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Vouc
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) N) Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Vouc
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles	(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) N) Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Vouc
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles	(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) N) Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Vouc
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard	(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) Voucher? (Y/N) V
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard	(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) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) V
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard	(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) Voucher? (Y/N) V
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard DRA Include Imp	(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) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) V
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard DRA Include Imp	(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) Voucher? (Y/N) Selamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard DRA Include Imp	(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) Voucher? (Y/N) Selamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard DRA Include Imp	(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) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) V
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard DRA Include Imp	(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) Voucher? (Y/N) Selamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard DRA Include Imp	(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) Voucher? (Y/N) Selamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard DRA Include Imp	(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) Voucher? (Y/N) Selamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard DRA Include Imp	(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) Voucher? (Y/N) Selamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labaled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher?
Performed? (Y/N): Fish Observed? (Y Frogs or Tadpoles Comments Regard DRA Include Imp	(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) Voucher? (Y/N) Selamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y

r		7
Ø	2	п
ı	71	- 18

SITE NAME/LOCATION	ctions
BLDR SLABS [16 pts]	HHEI Metric Points Substrate Max = 40
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts]	Bankfull Width
This Information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	
STREAM GRADIENT ESTIMATE Flat (0.5 1/100 ft) Flat to Moderate Moderate (2 1/100 ft) Moderate to Severe Severe (10 ft/100 ft))

001	EI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOV	e: Salt Lick Creek (11th Salt (reek) Distance from Evaluated Stream 0.28 miles
WWH Nam	
EWH Name	
MAF	PING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
SGS Quadra	ngle Name: Jackson, Ohio NRCS Soil Map Page: NRCS Soil Map Stream Order
ounty:	lackson Co. Township/city. Liberty Township
	dilitions? (Y/N): Date of last precipitation: 8 22 20 Quantity: 4.25
ase Flow Cor	aditions? (Y/N): Date of last precipitation: 8 22 2017 quantity: 4.25"
hotograph Inf	
levated Turbi	dity? (Y/N): Canopy (% open):
ere samples	collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
eld Measure:	
the sampling	reach representative of the stream (Y/N) If not, please explain:
-	
	IIC EVALUATION
erformed? (Y. ish Observed rogs or Tadpo	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (YN) Voucher? (YN) Voucher? (YN) Voucher? (YN) Salamanders Observed? (YN) Voucher? (Y
erformed? (Y. ish Observed rogs or Tadpo	(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) (YN) Voucher? (YN) Salamanders Observed? (YN) Voucher? (YN
erformed? (Yourself of the control o	(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) (YN) Voucher? (YN) Salamanders Observed? (YN) Voucher? (YN
erformed? (Y. sh Observed rogs or Tedpo omments Re	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vouche
sh Observed ogs or Tedpo omments Re	(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) (YN) Voucher? (YN) Salamanders Observed? (YN) Voucher? (YN
sh Observed rogs or Tadpo omments Re	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (
erformed? (Y. sh Observed rogs or Tadpo omments Re	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (
erformed? (Y. sh Observed rogs or Tadpo omments Re	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (
sh Observed rogs or Tadpo omments Re	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (
sh Observed rogs or Tadpo omments Report Include	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (
ish Observed rogs or Tadpo omments Report Include	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (
erformed? (Y.	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (
ish Observed rogs or Tadpo omments Report Include	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (
ish Observed rogs or Tadpo omments Report Include	(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) (YN) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (YN) Voucher? (

br		-
N	-1	
н	21	- 1
H	2	

DATE 8 22 7 SCORER VLV NOTE: Complete All Items On This Follows	COMMENTS	SOH-KLV	VER CODE	AINAGE AREA (mi²) O. RIVER MILE /H Streams" for Instr	
STREAM CHANNEL NONE / NA MODIFICATIONS:	ATURAL CHANNEL	RECOVERED TREC	COVERING [RECENT OR NO RECO	OVERY
1. SUBSTRATE (Estimate percent of ever (Max of 40). Add total number of significant of the control of the contr	rery type of substrate process to substrate types found percent	esent. Check ONLY two d (Max of 8). Final metric SiLT [3 pt] LEAF PACKWOOD FINE DETRITUS [3 CLAY OF HARDPAN MUCK [0 pts] ARTIFICIAL [3 pts]	c score is sum Y DEBRIS [3 pl pts]	of boxes A & B.	HHEI Metric Points Substrate Max = 40 A + B
2. Maximum Pool Depth (Measure the mevaluation. Avoid plunge pools from roally 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	naximum pool depth wi	pipes) (Check ONLY > 5 cm - 10 cm [15 < 5 cm [5 pts] NO WATER OR MO	t) evaluation re one box): pts]	ach at the time of	Pool Dept Max = 30
COMMENTS BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9'7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4'8" - 9'7") [20 pts] COMMENTS	average of 3-4 measur	ements) (Chec C > 1.0 m - 1.5 m (> 3 S = 1.0 m (≤ 3' 3") [5]		ox): (s]	Bankfull Width Max=30
	This information	must also be complete	ed .		
RIPARIAN ZONE AND FLOODS RIPARIAN WIDTH	PLAIN QUALITY AN FLOODPLAIN QUAL	NOTE: River Left (L) and	Right (R) as lo	oking downstream\$r	
L R (Per Bank) Wide >10m Moderate 5-10m	☐ ☐ Mature For	lominant per Bank) rest, Wetland Forest, Shrub or Old		Conservation Tillage Urban or Industrial	
Narrow <5m None COMMENTS	Residentia Fenced Pa	I, Park, New Field	00	Open Pasture, Row Crop Mining or Construction	
FLOW REGIME (At Time of Eval. Stream Flowing Subsurface flow with isolated poor		Moist Chann	nel, isolated po , no water (Epi	ols, no flow (Intermittent) hemeral)	
SINUOSITY (Number of bends p	er 61 m (200 ft) of chann 1.0	2.0	box):	3.0	
□ 0.5	1.5	2.5		>3	

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: Salt Lick Creek (1+1/2 Salt Creek Distance from Evaluated Stream 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: Jackson, OH NRCS Soll Map Page: NRCS Soll Map Stream Order County: Jackson Co . Township / City. Liberty Township
MISCELLANEOUS
Base Flow Conditions? (Y/N). Date of last precipitation: 8/17/2017 Quantity:
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 25 /.
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:
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) Vouch
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 Tell INSTITUTE ROW
FLOW -
(Fovest)

PHWH Form Page - 2



DATE BARLL SCORER N	LAT. 39, 10011 LONG. 82. (609 RIV COMMENTS SOM-YLV-C	209	
STREAM CHANNEL ZONON MODIFICATIONS:	E/NATURAL CHANNEL	COVERING TRECENT OR NO RECOVE	ERY
(Max of 40). Add total number of TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pt] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pt GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of	FINE DETRITUS [3 CLAY or HARDPAN MUCK [0 pts] ARTIFICIAL [3 pts]	PERCENT Y DEBRIS [3 pts] [0 pt]	HHEI Metric Points Substrate Max = 40
		one box):	ool Depti
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]		0
	O, <5 cm [5 pts] NO WATER OR M	OIST CHANNEL (0 pts)	0
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	<5 cm [5 pts] NO WATER OR MO	OIST CHANNEL (0 pts] OOL DEPTH (centimeters): ck ONLY one box): 1'3"-4'8") [15 pts]	Bankfull Width Max=30
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	S cm [5 pts] NO WATER OR MAXIMUM P as the average of 3-4 measurements) (Chec > 1.0 m - 1.5 m (> 3 ≤ 1.0 m (≤ 3° 3°) [5] AVERAGE B	COIST CHANNEL (0 pts] COOL DEPTH (centimeters): Cock ONLY one box): Sign 3"- 4'8") [15 pts] SANKFULL WIDTH (meters)	Width
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	S cm [5 pts] NO WATER OR MO MAXIMUM P as the average of 3-4 measurements) (Chec > 1.0 m - 1.5 m (> 3 > 1.0 m (≤ 3 3 7) [6] AVERAGE B This information must also be complete	COOL DEPTH (centimeters): Cook ONLY one box): 3'3"-4'8") [15 pts] SANKFULL WIDTH (meters)	Width
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS 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 (> 4'8" - 9'7") [20 comments COMMENTS RIPARIAN ZONE AND FI	AVERAGE B This information must also be complete OODPLAIN QUALITY L R (Most Predominant per Bank) MAXIMUM P AVERAGE B This information must also be complete (Check of the predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	OIST CHANNEL [0 pts] COOL DEPTH (centimeters): Ctk ONLY one box): 3'3"-4'8") [15 pts] Pts] SANKFULL WIDTH (meters)	Width
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS 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 (> 4'8"-9'7") [20] COMMENTS RIPARIAN ZONE AND FI RIPARIAN WIDTH RIPARIAN WIDTH (Per Bank) Wide > 10 m	AVERAGE B This information must also be complete. OODPLAIN QUALITY L R (Most Predominant per Bank) MAXIMUM P AVERAGE B This information pust also be complete. (Check in the average of 3-4 measurements) AVERAGE B AVERAGE B (Check in the average of 3-4 measurements) AVERAGE B	OIST CHANNEL (0 pte) COOL DEPTH (centimeters): Cok ONLY one box): Star-4'8') [15 pts] SANKFULL WIDTH (meters) ed d Right (R) as looking downstream L R Conservation Tillage	Width
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS 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 (> 4'8" - 9'7") [20] COMMENTS RIPARIAN ZONE AND FI RIPARIAN WIDTH (Per Bank) Wide > 10 m Moderate 5-10 m Narrow < 5 m None COMMENTS	MAXIMUM P as the average of 3-4 measurements) AVERAGE B This information must also be completed as 1.0 m (≤ 3° 3°) [6] AVERAGE B OODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture of Evaluation) (Check ONLY one box): Moist Change Moist C	OIST CHANNEL (0 pts] POOL DEPTH (centimeters): Ck ONLY one box): BY 3"- 4' 8") [15 pts] pts] BANKFULL WIDTH (meters) Ck Conservation Tillage Urban or Industrial Open Pasture, Row Crop	Width

ADDITIONAL STREAM INFORMATION (This	s Information Must Also be Completed):	
QHEI PERFORMED? - 1 Yes	No QHEI Score(If Yes, Attach Completed QI	HEI Form)
DOWNSTREAM DESIGNATED US WWH Name:	Distance from	n Evaluated Stream
EWH Name:		Evaluated Stream
- 1	APS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARL	
County: Jackson Co-	NRCS Soll Map Page; N Township / City: OQ	
MISCELLANEOUS		05/1
Base Flow Conditions? (Y/N): Date of	of last precipitation: 8/17/2017 Quantity:	<u>25'</u>
Photograph Information: Elevated Turbidity? (Y/N): Can	пору (% ореп): 20 [
Were samples collected for water chemistry?		s) I sh Number
	olved Oxygen (mg/l) pH (S.U.) Conduct	
	ream (Y/N) If not, please explain:	
13 the sampling reach representative or the same	Wild, process diplant	
Additional comments/description of pollution in	mpeds:	
1D number. Inc	d all observations. Voucher collections optional. NOTE: all vouc clude appropriate field data sheets from the Primary Headwater (N) Noucher? (YN) Voucher? (YN) Aquatic Macroinvertebrates Observed? (YN)	Habitat Assessment Manual)
	IVE DESCRIPTION OF STREAM REACH (This	
(X)	r features of Interest for site evaluation and a narrative	escription of the stream's location
Forest	Transmission ROW	71.7
\mathcal{A}	Ko	4)
FLOW		A TO
200		1 / /
$(\land \land)$		Fovest /
		4 (1,)
		1 () 7 /

r		7
ı	21	- 1
l	21	-1

LENGTH OF STREAM REACH (R) 390 DATE 8 22 201 SCORER VIX	RIVER BASIN SCIO TO RIVET DRAINAGE AREA (mi²) OLAT, 39.0999 LONG. 82, 6603 ORIVER CODE RIVER MILE COMMENTS SOH-YLV-OIO Orm - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	
and the second s	ATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECO	-
(Max of 40). Add total number of signif		HHEI Metric Points Substrate Max = 40
	maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of ad culverts or storm water pipes) (Check ONLY one box): > 5 cm - 10 cm [15 pts] < 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	Pool Depl Max = 30
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
BANK FULL WIDTH (Measured as th 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	e 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] AVERAGE BANKFULL WIDTH (meters)	Bankfull Width Max=30
RIPARIAN ZONE AND FLOOD	This information <u>must</u> also be completed PLAIN QUALITY	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank) Wide >10m	L R (Most Predominant per Bank) L R Mature Forest, Wetland D Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old Urban or Industrial	
□ □ Narrow <5m	Onen Pasture Row	
None COMMENTS	Residential, Park, New Field Crop Fenced Pasture Mining or Construction	
FLOW REGIME (At Time of Events Stream Flowing Subsurface flow with isolated por COMMENTS	valuation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends None 0.5	per 61 m (200 ft) of channel) (Check ONLY one box): 1.0	
STREAM GRADIENT ESTIMATE		

ADDITION	IAL STREAM INFO	RMATION (This Infor	nation Must Also	be Completed):			
	QHEI PERFORME	0? - 🗆 Yes 🗵 No (QHEI Score	(If Yes, Attach	Completed QHE	El Form)	
CWH N	lame:	ESIGNATED USE(S)			Distance from E	valuated Stream valuated Stream valuated Stream	
ı	MÁPPING: ATTAC	COPIES OF MAPS, IN	CLUDING THE ENT	TIRE WATERSHED AR	REA CLEARLY	MARK THE SITE	LOCATION
		Co.	OHTownsl		_ -		om Order
	MISCELLANEOUS					"	
Base Flow	Conditions? (Y/N):	Date of last	precipitation: 82	12/2017	Quantity:*	25"	
	n Information:		2.1	1			
Elevated To	urbidity? (Y/N): 1	Canopy (%	open): <u>Zo [-</u>	-			
Were samp	oles collected for w	eter chemistry? (Y/N):	Note lab	sample no. or id, and	attach results)	Lab Number:	
Field Meas) Dissolved O					
Is the samp	oling reach represe	ntative of the stream ()	'/N) If not, p	olease explain:			
-						-	
Additional of	comments/descript	on of pollution impacts					
Fish Observ Frogs or Ta	ved? (Y/N) N dpoles Observed? Regarding Biology	(If Yes, Record all obs ID number. Include all Voucher? (Y/N) N (Y/N) Voucher?	ppropriate field data	sheets from the Prima	ry Headwater Ha	bitat Assessment	Manual)
Inelu		ND NARRATIVE D					
incid	ide important ianc	6	-CX ested	Site evaluation and	a man au vo dos	-acostat	Name of the last o
	9	2000			1	Diesig	5
		5016		1	-		
FLOW T				18/			
	For	रहाती र	3	1/0	Pen	reid	
				/			



DATE 8 23 1	M REACH (ft) 18/ Corer KUV e All Items On This F	c	OMMENTS_	SOH-KLLV-1	012	RIVER MILE	
STREAM CHANN MODIFICATIONS	EL MONE!			THE PARTY OF THE PARTY OF	- 57	TRECENT OR NO RECO	-
	E (Estimate percent of Add total number of sign	ificant substra	te types found			of boxes A & B.	HHE
	LABS [16 pts]	PERCENT	TYPE	SILT [3 pt]		PERCENT	Point
☐ ☐ BOULDI	R (>256 mm) [16 pts]			LEAF PACKWOODY	DEBRIS [3	ots] 5	
	CK [16 pt]	10		FINE DETRITUS [3	CT To the second of	i	Substra Max = 4
	(65-256 mm) [12 pts]	12		CLAY or HARDPAN	[0 pt]		I III
and and	. (2-64 mm) [9 pts] 2 mm) [6 pts]	-35		MUCK [0 pts] ARTIFICIAL [3 pts]			120
	of Percentages of	-	(A)	ARTH TOTAL TO broi		(8)	
Bldr Slabs, E	Soulder, Cobble, Bedrock ST PREDOMINATE SU		PES:	TOTAL NUMBE	R OF SUBSI	RATE TYPES:	A+B
	m [30 pts]				one box): pts]	DAN SE	Pool Dep Max = 3
COMMENTS						(centimeters):	Diameter 1
> 4.0 meters (: > 3.0 m - 4.0 i > 1.5 m - 3.0 i	n (> 9' 7" - 13') [25 pts] n (> 4' 8" - 9' 7") [20 pts]	he average of	3-4 measure	> 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3'.3") [5 p	ts]	pte) 5'	Bankful Width Max=30
COMMENTS				AVERAGE BA	ANKFULL W	DTH (meters)	20
	RIAN ZONE AND FLOO ARIAN WIDTH	DPLAIN QUA		nust also be complete DTE: River Left (L) and		ooking downstream☆	
	er Bank)			minant per Bank)	L R		
	de >10m		Mature Fore	st, Wetland		Conservation Tillage	
	derate 5-10m	A Z	Immature Fo	rest, Shrub or Old		Urban or Industrial	
	гоw <5m	00		Park, New Field		Open Pasture, Row	
	ne MENTS	00	Fenced Pas		00	Crop Mining or Construction	
FLOV Stream Subsu	V REGIME (At Time of E n Flowing rface flow with isolated p MENTS			Moist Chann	el, isolated p no water (E	ools, no flow (Intermittent) phemeral)	
			0.6) -6 -6	l) (Check ONLY one I	have		

ADDITIONAL STRE	M INFORMATION (This Information	Must Also be Completed):		
QHEI PER	FORMED? - Tyes No QHEI So	ore(If Yes, Atta	ach Completed QHEI Form)	
_	REAM DESIGNATED USE(S) (reek		Distance from Evaluated Stre Distance from Evaluated Stre Distance from Evaluated Stre	esm
MAPPING:	ATTACH COPIES OF MAPS, INCLUDIN	G THE ENTIRE WATERSHEE	AREA. CLEARLY MARK THE S	ITE LOCATION
USGS Quadrangle N			Page: NRCS Soil Map	Stream Order
MISCELLA		1 /	"	
Base Flow Conditions Photograph Informati		ution: 8 22 (20)	Quantity: , 25"	
Elevated Turbidity? (4.1	15%		
	ed for water chemistry? (Y/N):		and attach results) Lab Number:	
	emp (°C) Dissolved Oxygen (r			
	representative of the stream (Y/N)			
stric sumpling reach	Top/osolitative of the stream (Thy)	II IIoi, piodoo anguani		
Performed? (Y/N):	ID number. Include appropriate Voucher? (Y/N) N Salan served? (Y/N) Voucher? (Y/N)	te field data sheets from the P	al. NOTE: all voucher samples murimary Headwater Habitat Assess Voucher? (Y/N) Voucher (Y/N) Vou	nent Manual)
DRAW	ING AND NARRATIVE DESCR	RIPTION OF STREAM	REACH (This must be c	ompleted):
	ant landmarks and other features of i			
	Imma Neurst	ture 2	G	1
FLOW	SA A		3	
1				
	1			

Ħ		7
N	5	п
п	111	ы

Communication of the Communication	RIVER BASIN SCIOLO R; VEY DRAINAGE AREA (mi²) O LAT. 39.09708 LONG. 82.65474 RIVER CODE RIVER MILE OF A RECENT OF A RECOVERED RECOVERING RECENT OF A R	ctions
(Max of 40). Add total number of significant	very type of substrate present. Check ONLY two predominant substrate TYPE boxes ficant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT TYPE SILT (3 pt) LEAF PACKWOODY DEBRIS (3 pts) FINE DETRITUS (3 pts) CLAY or HARDPAN (0 pt) MUCK (0 pts) ARTIFICIAL (3 pts) (B) STRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	HHEI Metric Points Substrate Max = 40
	maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of ad culverts or storm water pipes) (Check ONLY one box): >5 cm - 10 cm [15 pts] <5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts] MAXIMUM POOL DEPTH (centimeters):	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" + 9' 7") [20 pts] COMMENTS		Bankfull Width Max=30
RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None	This Information must also be completed PPLAIN QUALITY	
Stream Flowing Subsurface flow with isolated por COMMENTS SINUOSITY (Number of bends) None	per 61 m (200 ft) of channel) (Check ONLY one box): 1.0	
STREAM GRADIENT ESTIMATE Flat (0.5 fr/100 ft) Flat to Moderate	1.5	ft)

ADDITIONAL STREAM INFORMATION (This In	nformation Must Also be Completed):
QHEI PERFORMED? - Yes X	No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE	(S) Creek (little Salt (reek) Distance from Evaluated Stream 0.40 miles
CWH Name:	
EWH Name:	Distance from Evaluated Stream
ann A	S, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
ISGS Quadrangle Name: Jackson	() + (
county: Jackson Co.	Township/City: (Oal lownship
MISCELLANEOUS	
ase Flow Conditions? (Y/N): Date of	last precipitation: 8 22 17 quantity: , 25"
Photograph Information:	1
Elevated Turbidity? (Y/N): Canon	py (% open): 30 1.
	(Note lab sample no. or id. and attach results) Lab Number:
	ed Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
the sampling reach representative of the strea	am (Y/N) If not, please explain:
·	
Additional comments/description of pollution Imp	vads:
ID number. Including ish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Vouchers vouchers Regarding Blology. DRAWING AND NARRATIVE	Il observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ide appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Salamanders Observed? (Y/N) Voucher? (Y/N) Noucher? (Y
CIM	
LOW	TO EN (-)
	Emile 5
	PHWH Form Page - 2

П
1
Ŋ

IOTE: C	omplete All Items On This Fo	Jilli - Keler	to "Fleid Eva	luation manual for	01110 3 1 1 11	THE COUNTY OF THE CASE	uctions
	CHANNEL MONE/N ATIONS:	IATURAL CH	ANNEL RE	COVERED REC	OVERING (J RECENT OR NO RECO	OVERY
	BSTRATE (Estimate percent of e						
YPE	x of 40). Add total number of signi	ficant substrat	TYPE		score is sum	PERCENT	HHI Meti
	BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]			SILT [3 pt] LEAF PACKWOODY	DEBRIS [3 p	15 IO	Poin
	BEDROCK [16 pt]	10	00	FINE DETRITUS [3]	pts]		Substa Max =
	COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts]	15 20	00	CLAY or HARDPAN ; MUCK [0 pts]	[0 pt]	10.	17
	SAND (<2 mm) [6 pts]	10		ARTIFICIAL [3 pts]			17
	Total of Percentages of	15	(A)			(B)	A + E
	Slabs, Boulder, Cobble, Bedrock, TWO MOST PREDOMINATE SUB	STRATE TY	PES:	TOTAL NUMBER	R OF SUBST	RATE TYPES:	
Max	dmum Pool Depth (Measure the	maximum po	ool depth within	the 61 meter (200 ft	evaluation r	each at the time of	Pool De
eval	uation. Avoid plunge pools from re- centimeters (20 pts)			pes) (Check ONLY	one box):		Max =
> 22	5 - 30 cm [30 pts]			>5 cm - 10 cm [15 p	NET .	A STATE OF THE STA	17E
> 10	POR E was PRE WAY			< 5 cm [5 pts]		SHOP THE RESIDENCE TO SHOP THE PARTY OF THE	(2)
	- 22.5 cm [25 pts]			<5 cm [5 pts] NO WATER OR MO	IST CHANNI		2)
CO	MMENTS			NO WATER OR MO		(centimeters):	2)
BAN	MMENTS	ne average of		MAXIMUM PO	OOL DEPTH	(centimeters):	Banki
BAN > 4.0 > 3.0	MMENTS	ne average of		MAXIMUM PO	OOL DEPTH k <i>ONLY</i> one 3"- 4'8") [15	(centimeters):	Banki Widti Max=
BAN > 4.0 > 3.0	MMENTS	ne average of	3-4 measurem	MAXIMUM PO ents) (Checl > 1.0 m - 1.5 m (> 3	OOL DEPTH k <i>ONLY</i> one 3"- 4'8") [15	(centimeters):	Widt
PAN > 4.0 > 3.0 > 1.5	MMENTS	ne average of	3-4 measurem	MAXIMUM PO ents) (Checl > 1.0 m - 1.5 m (> 3	NOL DEPTH k ONLY one 3'- 4'8") [15	(centimeters):	Widt
PAN > 4.0 > 3.0 > 1.5	MMENTS		3-4 measurem	MAXIMUM PC ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') [5 p	NOL DEPTH k ONLY one 3°-4'8") [15 te]	(centimeters):	Widt
PAN > 4.0 > 3.0 > 1.5	MMENTS	This DPLAIN QUAI	3-4 measurem	MAXIMUM PO ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') 15 p AVERAGE BA ust also be complete TE: River Left (L) and	OOL DEPTH k ONLY one 3°-4'8") [15 ts]	(centimeters):	Widt
BAN > 4.0 > 3.0 > 1.5 COM	MMENTS IK FULL WIDTH (Measured as the meters (> 13') [30 pts] m - 4.0 m (> 9' 7" - 13') [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] MMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH R (Per Bank)	This DPLAIN QUAI FLOOD! L R	73-4 measurem	MAXIMUM PO ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') 15 p AVERAGE BA ust also be complete TE: River Left (L) and	COL DEPTH K ONLY one 3°-4'8") [15 ts] ANKFULL WI d Right (R) as I	(centimeters): box): ptel DTH (meters)	Widt
BAN > 4.0 > 3.0 > 1.5 COM	MMENTS IK FULL WIDTH (Measured as the meters (> 13') [30 pts] m - 4.0 m (> 9'.7" - 13') [25 pts] m - 3.0 m (> 4'.8" - 9'.7") [20 pts] MMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH R (Per Bank) Wide >10 m	This DPLAIN QUAI FLOOD! L R	Information militry & NO PLAIN QUALITY (Most Predom Mature Fores	MAXIMUM PC ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') 15 p AVERAGE BA ust also be complete TE: River Left (L) and (ninant per Bank) t, Wetland	ANKFULL WI	(centimeters): box): pts) DTH (meters) cooking downstream&	Widt
BAN > 4.0 > 3.0 > 1.5 COM	MMENTS IK FULL WIDTH (Measured as the meters (> 13') [30 pts] m - 4.0 m (> 9' 7" - 13') [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] MMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH R (Per Bank) Wide >10 m Moderate 5-10 m	This DPLAIN QUAI FLOOD! L R	Information militry & NO PLAIN QUALITY (Most Predom Mature Fores	MAXIMUM PC ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') 15 p AVERAGE BA ust also be complete TE: River Left (L) and (1) inant per Bank)	COL DEPTH K ONLY one 3°-4'8") [15 ts] ANKFULL WI d Right (R) as I	(centImeters): box): pte] DTH (meters) coking downstream Conservation Tillage Urban or Industrial	Widt
BAN > 4.0 > 3.0 > 1.5 COM	MMENTS IK FULL WIDTH (Measured as the meters (> 13') [30 pts] m - 4.0 m (> 9'.7" - 13') [25 pts] m - 3.0 m (> 4'.8" - 9'.7") [20 pts] MENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH (Per Bank) Wide > 10 m Moderate 5-10 m	This DPLAIN QUAI FLOODS L R	Information mulity & NO PLAIN QUALITY (Most Predom Mature Fores immature For Field	MAXIMUM PC ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') 15 p AVERAGE BA ust also be complete TE: River Left (L) and (ninant per Bank) t, Wetland	COL DEPTH K ONLY one 3"-4'8") [15 ANKFULL WI Right (R) as I	(centimeters): box): pts) DTH (meters) cooking downstream&	Widt
BAN > 4.0 > 3.0 > 1.5 COM	MMENTS IK FULL WIDTH (Measured as the meters (> 13') [30 pts] m - 4.0 m (> 9'.7" - 13') [25 pts] m - 3.0 m (> 4'.8" - 9'.7") [20 pts] MENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH (Per Bank) Wide > 10 m Moderate 5-10 m	This DPLAIN QUAI FLOODS L R	Information mulity & NO PLAIN QUALITY (Most Predom Mature Fores immature For Field	MAXIMUM PC ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') 15 p AVERAGE BA ust also be complete TE: River Left (L) and finant per Bank) t, Wetland est, Shrub or Old Park, New Field	COL DEPTH K ONLY one 3°-4'8") [15 ANKFULL WI d Right (R) as I	(centImeters): box): pte] DTH (meters) cooking downstream Conservation Tillage Urban or Industrial Open Pasture, Row	Widt
BAN >4.0 >3.0 >1.5 COM	MMENTS IK FULL WIDTH (Measured as the meters (> 13') [30 pts] m - 4.0 m (> 9' 7" - 13') [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] MMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH (Per Bank) Wide >10 m Moderate 5-10 m Narrow <5 m None COMMENTS FLOW REGIME (At Time of Ev	This person of the person of t	Information mulity & NO PLAIN QUALITY (Most Predom Mature Fores Immature For Field Residential, Fenced Pastu	MAXIMUM PC ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') 15 p AVERAGE BA ust also be complete TE: River Left (L) and innant per Bank) t, Wetland est, Shrub or Old Park, New Field are	COL DEPTH K ONLY one 3°-4'8" [15 ANKFULL WI C Right (R) as I	(centimeters): box): pts] DTH (meters) cooking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	Width Maxes
BAN > 4.0 > 3.0 > 1.5 COM	MMENTS IK FULL WIDTH (Measured as the meters (> 13') [30 pts] m - 4.0 m (> 9' 7" - 13') [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] MMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH (Per Bank) Wide >10 m Moderate 5-10 m Narrow <5 m None COMMENTS	This SPLAIN QUAI FLOOD! L R D D D D D D D D D D D D D D D D D D D	Information mulity & NO PLAIN QUALITY (Most Predom Mature Fores immature For Field Residential, Fenced Pasture Heck ONLY one	MAXIMUM PC ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') 15 p AVERAGE BA ust also be complete TE: River Left (L) and innant per Bank) t, Wetland est, Shrub or Old Park, New Field are	COL DEPTH K ONLY one 3°-4'8") [15 KNKFULL WI CRIGHT (R) as I	(centimeters): box): pts] DTH (meters) cooking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	widt Max= 2.C
BAN >4.0 >3.0 >1.5 COM	MMENTS IK FULL WIDTH (Measured as the meters (> 13') [30 pts] m - 4.0 m (> 9' 7" - 13') [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] MMENTS RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH R (Per Bank) Wide >10 m Moderate 5-10 m Narrow <5 m None COMMENTS FLOW REGIME (At Time of Ev Stream Flowing Subsurface flow with isolated po	This DPLAIN QUAI FLOOD L R D D D D D D D D D D D D D D D D D D D	Information militry & NO PLAIN QUALITY (Most Predom Mature Fores Immature For Field Residential, F Fenced Pasture For Field Residential, F Fenced For Field Residentia	MAXIMUM PC ents) (Checl > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') 15 p AVERAGE BA ust also be complete TE: River Left (L) and finant per Bank) t, Wetland est, Shrub or Old eark, New Field are box): Moist Chann Dry channel,	COL DEPTH K ONLY one 3° 4'8") [15 ANKFULL WI COL DEPTH R ONLY one 3° 4'8") [15 ANKFULL WI COL DEPTH ANKFULL WI ANKFULL WI COL DEPTH ANKFULL WI ANKFULL WI COL DEPTH ANKFULL WI ANKFU	(centimeters): box): pts] DTH (meters) cooking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	widt Max= 2.C

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed): QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form) 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 Soil Map Stream Order _ Township / City. MISCELLANEOUS Base Flow Conditions? (Y/N): Photograph Information: Elevated Turbidity? (Y/N): _ Canopy (% open): (Note lab sample no. or id. and attach results) Lab Number:_ Were samples collected for water chemistry? (Y/N): _ Fleld Measures: Temp (°C) Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _ Is the sampling reach representative of the stream (Y/N) Y If not, please explain: Additional comments/description of pollution impacts: **BIOTIC EVALUATION** (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) Voucher? (Y/N) / Salamanders Observed? (Y/N) / Voucher? (Y/N) / Fish Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) \(\sqrt{Y/N} \) Voucher? (Y/N) \(\sqrt{Aquatic Macroinvertebrates Observed? (Y/N) \(\sqrt{N} \) Voucher? (Y/N) \(\sqrt{N} \) Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location Properties-Residential Road ransmission

OhioEPA

Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI	Score:	44

	D 0 1	11	311113111111111111111111111111111111111		
Stream & Location:	HEP-Pine Ridge	Heppner		RM: Date.	8123106
S019		Scorers Full	Name & Affiliation:	KLV-GAL CONSU	Hants
River Code:	- STORET #		t./ Long.: 39.094		Office verified location
1] SUBSTRATE Check	ONLY Two substrate TYPE B	BOXES:			70001107
	te % or note every type prese	ent	Check O	NE (Or 2 & average)	LITY
BEST TYPES	OOL RIFFLE OTHER	TYPES POOL RIFF	LE ORIGIN		LITY
☐ ☐ BLDR /SLABS [10] _ ☐ ☐ BOULDER [9]			LIMESTONE [1]	HEAVY	
COBBLE [8]			□ WETLANDS [0]	SILT	
GRAVEL [7]	20 🗆 🖂 SILT [2	1 4	5 THARDPAN (0)	T EREE I	41
SAND [6]		Control of the Contro	SANDSTONE [0]	EDDEO EXTEN	SIVE [-2]
BEDROCK [5]		natural substrates; ign	ore RIP/RAP [0] es) LACUSTURINE [0]	MODE!	RATE [-1] Maxin
NUMBER OF BEST T	YPES: 4 or more [2] Signature	adge from point-sourc	SHALE [-1]	BDDEON □ EXTEN □ MODEI □ MODEI □ NONE	AL [U] 20
Comments	a or less [0]		COAL FINES [-2]	- Inone	Lot and a second
] INSTREAM COVER	Indicate presence 0 to 3: 0- quality; 2-Moderate amount	-Absent; 1-Very small	amounts or if more common	n of marginal AM	OUNT
quality; 3-Highest quality in	moderate or greater amount	s (e.g., very large bou	lders in deep or fast water,	large Check ONE	(Or 2 & average)
diameter log that is stable, UNDERCUT BANKS	well developed rootwad in de				
OVERHANGING VE	CONTROL OF THE PROPERTY OF THE	LS > 70cm [2]	OXBOWS, BACKWATE AQUATIC MACROPHYT	A COLUMN TO SERVICE AND A COLU	TE 25-75% [7]
O SHALLOWS (IN SLC		LDERS [1]	LOGS OR WOODY DEE		BSENT <5% [1]
O ROOTMATS [1]		-			PROPERTY AND PROPE
Comments					Cover Maximum
					20
CHANNEL MORPHO	OLOGY Check ONE in eac	h category (Or 2 & av	erage)		
SINUOSITY DEVE	ELOPMENT CHAN	NELIZATION	STABILITY		
	CELLENT [7] NONE [☐ HIGH [3]		
	OOD [5] RECOV	ERED [4]	MODERATE [2]		
LOW [2] FA		'ERING [3] T OR NO RECOVER'	LOW [1]		Channel
Comments	ON [1] LI NECEN	I OK NO RECOVER	(1)1		Maximum 12
40/10/2015					20
BANK FROSION A	ND RIPARIAN ZONE	heck ONF in each cat	enony for FACH RANK (Or	2 ner hank & average)	
River right looking downstream	RIPARIAN WIDT		OOD PLAIN QUALIT		
R EROSION	☐ WIDE > 50m [4]	☐ ☐ FOREST	SWAMP [3]	CONSERVAT	ION TILLAGE [1]
NONE / LITTLE [3]	☐ ☐ MODERATE 10-50m	[3] Q SHRUB	OR OLD FIELD [2]	☐ ☐ URBAN OR II	NDUSTRIAL [0]
MODERATE [2]	☐ ☐ NARROW 5-10m [2]	RESIDE	ITIAL, PARK, NEW FIELD	[1] 🗆 🗆 MINING / COI	ISTRUCTION [0]
I MEAVY / SEVERE [1]	VERY NARROW < 5r			Indicate predominant	
Comments	CI CINONE [0]	LI LI OPEN PA	ASTURE, ROWCROP [0]	past 100m riparian.	puriur
omments					Maximum 10
POOL / GLIDE AND	RIFFLE / RUN QUALI	TY		-	
MAXIMUM DEPTH	CHANNEL WID		JRRENT VELOCITY	Recreation	on Potential
Check ONE (ONLY!)	Check ONE (Or 2 & ave	erage)	Check ALL that apply	Primar	y Contact
	POOL WIDTH > RIFFLE W		NTIAL [-1] SLOW [1]	Seconda	ry Contact
	POOL WIDTH = RIFFLE W	Company of the Compan		IAL [-1] (circle one and	comment on back)
0.4<0.7m [2] 0.2<0.4m [1]	POOL WIDTH > RIFFLE W				
□ < 0.2m [0]			RATE [1] DEDDIES [1] bite for reach - pools and rift		Pool / 2
omments		maiol	ne for reach - pools and mi	100.	Maximum 2
*****************					12
Indicate for functi	onal riffles; Best area			population	RIFFLE [metric:
of riffle-obligate s		Check ONE (Or 2 &		The second secon	
RIFFLE DEPTH	RUN DEPTH	RIFFLE / RUN		LE / RUN EMBEDI	DEDNESS
BEST AREAS > 10cm [2]	MAXIMUM > 50cm [2] MAXIMUM < 50cm [1]	MOD STABLE	obie, Boulder) [2]	□ NONE [2] □ LOW [1]	V - 1 - 1 - 1
BEST AREAS < 5cm			Fine Gravel, Sand) [0]	MODERATE IN	Riffle /
[metric=0]			and samples	EXTENSIVE [-	II. Run 2
omments					- Maximum 8
GRADIENT (ft/mi)	W [2-4]	9/ POOL (20)	WCLIDE (C)	
DRAINAGE AREA	MODERATE [6-1		%POOL:	%GLIDE:	Gradient 7
	mi2) HIGH - VERY HIG		%RUN: (40)%	RIFFLE: (U)	Maximum (

		Salve Source		AJ SAMPLED REACH Check ALL that apply METHOD STAGE BOAT WADE L. LINE OTHER OTHER O.5 Km O.2 Km O.15 Km O.12 Km O.12 Km OTHER OTHER OTHER OTHER OTHER CLARITY CANOPY SECCHI DEPTH SS%0PEN O3%-<55% O30%-<55% CJ RECREATION CHOCK OF COMBEN C
		S S S S S S S S S S S S S S S S S S S		B] AESTHETICS NUISANCE ALGAE INVASIVE MACROPHYTES EXCESS TURBIDITY DISCOLORATION FOAM / SCUM OIL SHEEN TRASH / LITTER NUISANCE ODOR SLUDGE DEPOSITS CSOs/SSOs/OUTFALLS ATION AREA DEPTH POOL: >100ft2 >3ft
Residential Proper	Paved Road	(90)	Transmistron	Is reach typical of steam?, Recreation DJ MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG-SUCCESSION-OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING-BEDLOAD-STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE
openty		(3)		Circle some & COMMENT
			Residential Property -	BJ AESTHETICS BJ MAINTENANCE NUISANCE ALGAE NUISANCE ODOR NODIFIED OTHER NODIFIED OTHER NUISANCE ODOR NODIFIED OTHER NUISANCE ODOR NODIFIED OTHER NUISANCE ODOR NODIFIED OTHER NUISANCE ODOR NUISANCE ODOR ARMOURED / SCUURED NUISANCE ODOR NUISANCE OD
			Flow	FJ MEASUREMENT x width x depth max. depth bankfull x depth bankfull max. depth bankfull max. depth floodprone x² width entrench. ratio Legacy Tree:

H	
N	20
	20
Ų.	V /

DATE 8 23 2017 SCOR	RER_KLV	COMMENTS SOH-KLV-C	VER CODE RIVER MILE ONE Ohio's PHWH Streams" for Instructi	
STREAM CHANNEL MODIFICATIONS:			COVERING RECENT OR NO RECOVE	
(Max of 40). Add total r TYPE BLDR SLABS [16 p BOULDER (>256 m BEDROCK [16 pt COBBLE (65-256 m GRAVEL (2-64 mm) SAND (<2 mm) [6 p Total of Percenta Bldr Slabs, Boulder, Co	pumber of significant substrates PERCENT pts] nm) [16 pts] nm) [12 pts] pts] pts] 20 pts] ges of bble, Bedrock	SILT [3 pt] LEAF PACKWOOD LEAF PACKWOOD FINE DETRITUS [3 CLAY OF HARDPAN MUCK [0 pts] ARTIFICIAL [3 pts]	PERCENT PERCENT PERCENT PERCENT O DEBRIS [3 pts] [0 pt] (B)	HHEI Metric Points ubstrate lax = 40
> 30 centimeters [20 pts > 22.5 - 30 cm [30 pts]	(Measure the maximum pe e pools from road culverts	or storm water pipes) (Check ONLY >5 cm - 10 cm [15] -5 cm [5 pts] NO WATER OR MC	one box): M pts]	ol Dept lax = 30
> 10 - 22.5 cm [25 pts]			0 5	
COMMENTS		MAXIMUM PO	OOL DEPTH (centimeters):	
COMMENTS	leasured as the average o	MAXIMUM Port 3-4 measurements) (Chec □ > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3'3') [5]	OOL DEPTH (centimeters): #k OALY one box): 3"-4"9") [15 pts]	ankfull Width
COMMENTS	leasured as the average of 13) [25 pts] 9'7"] [20 pts]	MAXIMUM Port 3-4 measurements) (Chec □ > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3'.3") [5]	OOL DEPTH (centimeters): ck ONLY one box): B 3"-4"8") [15 pts]	Width
BANK FULL WIDTH (M > 4.0 meters (> 13') (\$0 pt > 3.0 m - 4.0 m (> 9'.7" + > 1.5 m - 3.0 m (> 4'.8" +	leasured as the average of 16) [25 pts] 16 25 pts] 17) [20 pts] 17 22 pts	MAXIMUM Port 3-4 measurements) (Chec □ > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3'.3') [5]	OOL DEPTH (centimeters): # ONLY one box): 3"-4'8") [15 pts] pts] ANKFULL WIDTH (meters)	A
COMMENTS BANK FULL WIDTH (M > 4.0 meters (> 13) [30 pt > 3.0 m - 4.0 m (> 9'7" - > 1.5 m - 3.0 m (> 4'8" + COMMENTS	leasured as the average of 16') [25 pts] 9' 7') [20 pts] This	MAXIMUM Port 3-4 measurements) (Chec > 1.0 m - 1.5 m (> 3' \le 1.0 m (\le 3' 3') [5] AVERAGE B. Information must also be complete	OOL DEPTH (centimeters): # ONLY one box): 3"-4'8") [15 pts] pts] ANKFULL WIDTH (meters)	Width
BANK FULL WIDTH (M > 4.0 meters (> 13) [30 pt > 3.0 m - 4.0 m (> 9.7" - > 1.5 m - 3.0 m (> 4"8" - COMMENTS RIPARIAN ZON RIPARIAN WILL L R (Per Bank)	leasured as the average of the state of the	MAXIMUM Port 3-4 measurements) (Chec > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') [5] AVERAGE B. S Information must also be complete ALITY ANOTE: River Left (L) and DPLAIN QUALITY (Most Predominant per Bank)	OOL DEPTH (centimeters): ## ONLY one box): 3" - 4" 9") [15 pts] ## ANKFULL WIDTH (meters) ## Right (R) as looking downstream \$\frac{1}{2} \te	Width
COMMENTS BANK FULL WIDTH (M > 4.0 meters (> 13) (30 pt > 3.0 m - 4.0 m (> 9'7"+ > 1.5 m - 3.0 m (> 4'8"+ COMMENTS RIPARIAN ZON RIPARIAN WIE L R (Per Bank) Wide > 10 m	leasured as the average of 16) (25 pts) (27) (20 pts) This E AND FLOODPLAIN QUADTH FLOOD	MAXIMUM Port 3-4 measurements) (Chec > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') [5] AVERAGE B. S Information must also be complete ALITY ★NOTE: River Left (L) and DPLAIN QUALITY	OOL DEPTH (centimeters): ***********************************	Width
COMMENTS BANK FULL WIDTH (M > 4.0 meters (> 13) [30 pt > 3.0 m - 4.0 m (> 9'7" - > 1.5 m - 3.0 m (> 4'8" + COMMENTS RIPARIAN ZON RIPARIAN WII L R (Per Bank) Wide > 10 m Moderate 5-1	leasured as the average of the state of the	MAXIMUM Port 3-4 measurements) (Chec > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3' 3') [5] AVERAGE B. S Information must also be complete ALITY ANOTE: River Left (L) and DPLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland	OOL DEPTH (centimeters): ***RENT OF THE CONSTRUCTION OF THE CONST	Width
COMMENTS BANK FULL WIDTH (M > 4.0 meters (> 13) (30 pt > 3.0 m - 4.0 m (> 9'7"+ > 1.5 m - 3.0 m (> 4'8"+ COMMENTS RIPARIAN ZON RIPARIAN WIE L R (Per Bank) Wide > 10 m	leasured as the average of 16) (25 pts) (27) (20 pts) This E AND FLOODPLAIN QUADTH FLOOD	MAXIMUM Port 3-4 measurements) (Chect > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3'3') [5] AVERAGE B. S Information must also be completed ALITY ANOTE: River Left (L) and DPLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field	OOL DEPTH (centimeters): It ONLY one box): IS - 4'-B'') [15 pts] ANKFULL WIDTH (meters) IL R Conservation Tillage Urban or Industrial Open Pasture, Row Crop	Width
COMMENTS BANK FULL WIDTH (M > 4.0 meters (> 13) (30 ps > 3.0 m - 4.0 m (> 9'7" + > 1.5 m - 3.0 m (> 4'8" + COMMENTS RIPARIAN ZON RIPARIAN WIE L R (Per Bank) Wide > 10 m Moderate 5-1	leasured as the average of 16) (25 pts) (27) (20 pts) This E AND FLOODPLAIN QUADTH FLOOD	MAXIMUM Port 3-4 measurements) (Checo > 1.0 m - 1.5 m (> 3	OOL DEPTH (centimeters): RK ONLY one box): 3"-4"9") [15 pts] ANKFULL WIDTH (meters) C Right (R) as looking downstream L R Conservation Tillage Urban or Industrial Open Pasture, Row	Width
BANK FULL WIDTH (M > 4.0 meters (> 13) (30 pt > 3.0 m - 4.0 m (> 9.7" > 1.5 m - 3.0 m (> 4'8"+ COMMENTS RIPARIAN ZON RIPARIAN WII L R (Per Bank) Wide >10 m Moderate 5-1 Narrow <5m None COMMENTS FLOW REGIME Stream Flowing	leasured as the average of 16) (25 pts) (27) (20 pts) This E AND FLOODPLAIN QUADTH FLOOD	MAXIMUM Port 3-4 measurements) (Chec > 1.0 m - 1.5 m (> 3' \le 1.0 m (\le 3' 3') [5] \le 1.0 m (\le 10' 3') [5]	OOL DEPTH (centimeters): It ONLY one box): IS - 4'-B'') [15 pts] ANKFULL WIDTH (meters) IL R Conservation Tillage Urban or Industrial Open Pasture, Row Crop	Width

ADDITIONAL STREAM INFORMATION (This in	nformation Must Also be Completed):
QHEI PERFORMED? - TYes XN	O QHE Score(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S DWWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS	S, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
uses Quadrangle Name: Tackson county: Ackson Co.	NRCS Soil Map Page: NRCS Soil Map Stream Order Township / City: Coal Town Ship
MISCELLANEOUS Base Flow Conditions? (Y/N): Date of It	ast precipitation: 8/22/17 quantity: .25"
Photograph Information:	OC:/
	y (% open): 43/-
Vere samples collected for water chemistry? (Y/n	
ield Measures: Temp (°C) Dissolved	d Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
the sampling reach representative of the stream	n (Y/N) If not, please explain:
	the same of the sa
ID number. Include	observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site e appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Salamanders Observed? (Y/N) Voucher? (Y/N) V
	E DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
	patures of Interest for site evaluation and a narrative description of the stream's location
	The second secon
i	Fenced Pasture
	10.10
Low →	
TOWN A	
	man
	Decidential Property Janin
	Residentia Hoberton Innove
	Residential Property Town

24	-	
AL		211
1 1		34

ATE 8 23 NOTE: Cor	SCORER KU	с	09482LONG,-82,6492Aii OMMENTS SOH-KLV-C to "Field Evaluation Manual fo	010		
TREAM CH		NATURAL CH	ANNEL RECOVERED RE	COVERING (TRECENT OR NO RECO	OVERY
(Max of Max of M		PERCENT	substrate present. Check ONL Y two te types found (Max of 8). Final metri TYPE SILT [3 pt] LEAF PACKWOOD FINE DETRITUS [3 CLAY OF HARDPAN MUCK [0 pts] ARTIFICIAL [3 pts] (A) PES: TOTAL NUMBE	c score is sum Y DEBRIS [3 pts] [0 pt]	percent percent (B)	HHE Metr Poin Substra Max =
Maxim evalua > 30 ce	um Pool Depth (Meesure the	maxlmum po	pool depth within the 61 meter (200 for storm water pipes) (Check ONLY > 5 cm - 10 cm [15 cm [5 pts] NO WATER OR Mi	't) evaluation r 'one box): pts]	each at the time of	Pool De Max =:
COMM					(centimeters):	
BANK	FULL WIDTH (Measured as t ters (> 13') [30 pts]	he average of	> 1.0 m - 1.5 m (> 3			Bankfu Width
> 4.0 me > 3.0 m	- 4.0 m (> 9' 7" - 13") [25 pts] - 3.0 m (> 4' 8" - 9' 7") [20 pts]	12		brei	21	Max=3
> 4.0 me > 3.0 m	- 4.0 m (> 9' 7" - 13") [25 pts] - 3.0 m (> 4' 8" - 9' 7") [20 pts]		4.00.00	1	DTH (meters)	Max=3
> 4.0 me > 3.0 m > 1.5 m	- 4.0 m (> 9' 7" - 13') [25 pts] - 3.0 m (> 4' 8" - 9' 7") [20 pts] ENTS	This DPLAIN QUA	AVERAGE B	ANKFULL W	H	Max=3
2 > 4.0 me	- 4.0 m (> 9' 7" - 13') [25 pts] - 3.0 m (> 4' 8" + 9' 7") [20 pts] ENTS	This DPLAIN QUA FLOOD	AVERAGE B Information must also be complete LITY ANOTE: River Left (L) and PLAIN QUALITY	ANKFULL Wi	H	Max=3
2 4.0 me 3.0 m > 1.5 m COMM	- 4.0 m (> 9' 7" - 13') [25 pts] - 3.0 m (> 4' 8" - 9' 7") [20 pts] ENTS	This DPLAIN QUA FLOOD	Information must also be complete LITY ANOTE: River Left (L) and PLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland	ANKFULL W	H	Max=3
2 > 4.0 me	- 4.0 m (> 9' 7" - 13') [25 pts] - 3.0 m (> 4' 8" - 9' 7") [20 pts] ENTS	This DPLAIN QUA FLOOD L R	AVERAGE B Information must also be complete LITY PROTE: River Left (L) and PLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	ed I Right (R) as	ooking downstream &	S
2 4.0 me 3.0 m > 1.5 m COMM	- 4.0 m (> 9' 7" - 13') [25 pts] - 3.0 m (> 4' 8" - 9' 7") [20 pts] ENTS RIPARIAN ZONE AND FLOOR RIPARIAN WIDTH (Per Bank) Wide > 10 m Moderate 5-10 m	This DPLAIN QUA FLOOD L R	Information must also be completed. LITY ANOTE: River Left (L) and PLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Fleid	ed I Right (R) as	Conservation Tillage Urban or Industrial Open Pasture, Row	5
2 4.0 me 3.0 m > 1.5 m COMM	- 4.0 m (> 9' 7" - 13') [25 pts] - 3.0 m (> 4' 8" - 9' 7") [20 pts] ENTS RIPARIAN ZONE AND FLOOR RIPARIAN WIDTH (Per Bank) Wide > 10 m	This DPLAIN QUA FLOOD L R	AVERAGE B Information must also be complete LITY PROTE: River Left (L) and PLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	ANKFULL W	cooking downstream & Conservation Tillage Urban or Industrial	5
24.0 me > 3.0 m > 1.5 m COMM	- 4.0 m (> 9' 7" - 13') [25 pts] - 3.0 m (> 4' 8" - 9' 7') [20 pts] ENTS RIPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide > 10 m Moderate 5-10 m Narrow < 5 m None	This DPLAIN QUA FLOOD L R C C C C C C C C C C C C C C C C C C C	Information must also be complete LITY ANOTE: River Left (L) and PLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture theck ONLY one box): Moist Chant	ANKFULL W	Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	5

QHEI PERFORMED? - Yes No QHEI Score(If Yes, Attach Completed QHEI Form)	
·	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Salt Lick Creek (11the Salt Cree Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream	.67mile
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCA	АПОИ
USGS Quadrangle Name: Jackson, OH NRCS Soil Map Page: NRCS Soil Map Stream O	rder
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation: 8(22/17) Quantity: 125"	
Photograph Information:	-
Elevated Turbidity? (Y/N): N Canopy (% open): 85.	
Vere samples collected for water chemistry? (Y/N): Note lab sample no. or id. and attach results) Lab Number:	
leld Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
the sampling reach representative of the stream (Y/N) If not, please explain:	
erformed? (Y/N): Note: all voucher samples must be labe ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manusch Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Ormments Regarding Biology:	uai)
erformed? (Y/N):	uai)
erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labe ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manusch Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)	uai)
erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labe ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manusch Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)	N) N
erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labe ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manuals Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)	ed):
erformed? (Y/N): Note: all voucher samples must be labe ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manualsh Observed? (Y/N) Noucher? (ed):
erformed? (Y/N): (if Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labe ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manusish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Omments Regarding Biology. DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be complete include important landmarks and other features of interest for site evaluation and a narrative description of the stream Fare of the stream	ed):
erformed? (Y/N): Note: all voucher samples must be labe ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manualsh Observed? (Y/N) Noucher? (ed):
erformed? (Y/N): (if Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labe ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manusish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Omments Regarding Biology. DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be complete include important landmarks and other features of interest for site evaluation and a narrative description of the stream Fare of the stream	ed):
offermed? (Y/N):	ed):
erformed? (Y/N):	ed):

Primary Headwater Habitat Evaluation Form

	-
00)
3)
00	

LENGTH OF STREAM	SITE NUMBER	LAT39.	RIVER BASIN 50	oto Rive	DR CODE	AINAGE AREA (mí²)	0.05 N
DATE 8 23 17	SCORER KL		COMMENTS SOHI-		17	NIVER WILE	
The second secon	ll Items On This F		to "Field Evaluation N		nio's PHW	/H Streams" for Instri	uctions
STREAM CHANNEL MODIFICATIONS:	. MONE!	NATURAL CH	IANNEL RECOVERE	ED RECOV	ERING [RECENT OR NO RECO	VERY
			substrate present. Check ate types found (Max of 8).				HHEI
TYPE BLDR SLAB	19 [16 pte]	PERCENT	TYPE SILT (3 p	NO.		PERCENT	Metric Points
BOULDER (>256 mm) [16 pts]		O D LEAF PA	CKWOODY DE	EBRIS (3 pi		
BEDROCK COBBLE (68)				TRITUS [3 pts			Substrate Max = 40
	5-256 mm) [12 pts] -64 mm) [9 pts]	70		HARDPAN [0]	pt]	-	10
SAND (2 m		30	M 00-11	IAL [3 pts]		(4)	13
Total of Pr	ercentages of		(A)			(B)	A+B
Bidr Slabs, Bould SCORE OF TWO MOST	der, Cobble, Bedrock		191	AL NUMBER O	E CUDOTE	4	ATD
- 63							
. Maximum Pool evaluation. Avoid	Depth (Measure the	maximum po	ool depth within the 61 n or storm water pipes) (Cl	neter (200 ft) ev	valuation re	ach at the time of	Pool Dept Max = 30
☐ > 30 centimeters	[20 pts]	044 04172112 0	>5 cm	-10 cm [15 pts]		18 / / /	max - 30
> 22.5 - 30 cm [3 > 10 - 22.5 cm [2			☐ NOWA	[5 pts] TER OR MOIST	CHANNE	(0 pts)	15
COMMENTS				AXIMUM POOL		10	
BANK FULL WIL) [30 pts]	he average of	f 3-4 measurements) Q > 1.0 m	(Chack O	WLY one b		Bankfull Width
	with the contract of the contr	เลา	78. ≰1.0 m	(≤ 3'3") [5 pts]	SAME REAL	Carlot Marie 1986	Max≈30
> 3.0 m - 4.0 m (>						3	5
> 3.0 m - 4.0 m (>	4' 8"-8' 7") [20 pts]		· i / t, =			1011	
> 3.0 m - 4.0 m (>		11/11/10/11/20	A	VERAGE BANK	KFULL WIE	OTH (meters)	
> 3.0 m - 4.0 m (>		This			KFULL WID	OTH (meters)	
□ > 3.0 m - 4.0 m (> □ > 1.5 m - 3.0 m (> COMMENTS	4 8'-9' 7') [20 pts]	DPLAIN QUA	Information must also b	o completed	-	orth (meters)	
> 3.0 m - 4.0 m (> 1.5 fp - 3.0 m (> COMMENTS	4 8'-9'7') [20 pts] N ZONE AND FLOO	DPLAIN QUA FLOOD	Information must also builty &NOTE: River	e completed Left (L) and Rig	iht (R) as lo	OTH (meters)	
□ > 3.0 m - 4.0 m (> □ > 1.5 m - 3.0 m (> COMMENTS	A 8'-9'7') [20 pts] N ZONE AND FLOOM AN WIDTH ank)	DPLAIN QUA	Information must also b	e completed Left (L) and Rig Bank)	-	OTH (meters)	3
S 3.0 m - 4.0 m (P) COMMENTS RIPARIAL RIPARIAL RIPARIAL Vide >	A 8'-9'7') [20 pts] N ZONE AND FLOOM AN WIDTH ank)	DPLAIN QUA FLOOD L R	Information must also builty &NOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immature Forest, Shrub	e completed Left (L) and Rig Bank)	iht (R) as id	oking downstream,\$r	
S 3.0 m - 4.0 m (P) >1.5 fb - 3.0 m (P) COMMENTS RIPARIAI RIPARIAI RIPARIAI RIPARIAI Vide > Modent	N ZONE AND FLOOR AN WIDTH ank) 10m. ate 5-10m	FLOOD L R	Information must also builty ANOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immature Forest, Shrub Field	pe completed Left (L) and Rig Bank) o or Old	iht (R) as lo	oking downstream&	
S 3.0 m - 4.0 m (P) >1.5 m - 3.0 m (P) COMMENTS RIPARIAL RIPARIAL RIPARIAL RIPARIAL RIPARIAL Nide > Modern Narrow	N ZONE AND FLOOR AN WIDTH ank) 10m. ate 5-10m	DPLAIN QUA	Information must also builty &NOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immature Forest, Shrub Field Residential, Park, New	pe completed Left (L) and Rig Bank) o or Old	iht (R) as lo	oking downstreams Conservation Tillage Urban or Industrial Open Pasture, Row Crop	
RIPARIAL RIP	N ZONE AND FLOOR AN WIDTH ank) 10m. ate 5-10m	FLOOD L R	Information must also builty ANOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immature Forest, Shrub Field	pe completed Left (L) and Rig Bank) o or Old	iht (R) as lo	oking downstream & Conservation Tillage Urban or Industrial Open Pasture, Row	
RIPARIAL RIP	N ZONE AND FLOOR AN WIDTH ank) 10m ate 5-10m y <5m	DPLAIN QUA	Information must also builty &NOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immature Forest, Shrub Field Residential, Park, New	pe completed Left (L) and Rig Bank) o or Old	iht (R) as lo	oking downstreams Conservation Tillage Urban or Industrial Open Pasture, Row Crop	
RIPARIAI RIP	N ZONE AND FLOOR AN WIDTH ank) 10m. ate 5-10m 7-5m TEGIME (At Time of Ex	DPLAIN QUA FLOOD L R D D D D D D D D D D D D D D D D D D D	Information must also builty &NOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immature Forest, Shrub Field Residential, Park, New Fenced Pasture	e completed Left (L) and Rig Bank) o or Old Field Moist Channel, i	L R	oking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	
RIPARIAI RIP	N ZONE AND FLOOR AN WIDTH ank) 10m ate 5-10m 7-5m TS	DPLAIN QUA FLOOD L R D D D D D D D D D D D D D D D D D D D	Information must also builty &NOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immature Forest, Shrub Field Residential, Park, New Fenced Pasture	e completed Left (L) and Rig Bank) o or Old Field	L R	oking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	
RIPARIAI RIP	N ZONE AND FLOOR AN WIDTH ank) -10m. ate 5-10m 7 <5m TTS EGIME (At Time of Entering of	DPLAIN QUA FLOOD L R COMPANY C	Information must also builty &NOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immature Forest, Shrub Field Residential, Park, New Fenced Pasture Check ONLY one box):	Bank) o or Old Field Moist Channel, no	iht (R) as lo	oking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	
RIPARIAL RIP	N ZONE AND FLOOR AN WIDTH ank) 10m ate 5-10m 7-5m TS	PLAIN QUA FLOOD L R C C C C C C C C C C C C C C C C C C C	Information must also builty ANOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immature Forest, Shrub Field Residential, Park, New Fenced Pasture Check ONLY one box): all) Offi) of channel) (Check	Bank) o or Old Field Moist Channel, in ONLY one box 0	int (R) as lo	oking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction ols, no flow (Intermittent) hemeral)	
RIPARIAI RIP	N ZONE AND FLOOR AN WIDTH ank) -10m. ate 5-10m 7 <5m TTS EGIME (At Time of Entering of	DPLAIN QUA FLOOD L R C C C C C C C C C C C C C C C C C C C	Information must also builty & NOTE: River PLAIN QUALITY (Most Predominant per Mature Forest, Wetland Immeture Forest, Shrub Field Residential, Park, New Fenced Pasture Check ONLY one box): al) of ft) of channel) (Check	Bank) o or Old Field Moist Channel, in ONLY one box 0	iht (R) as lo	oking downstream from Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction ols, no flow (Intermittent) hemeral)	

QHEI PERFORME	ED? - Tyes Solo QHE Score(If Yes, Attach Completed QHEI Form)	
DOWNSTREAM D	SESIGNATED USE(S) (TILLS C. I+ (Tepk)	
	Salt Lick (reek (Tittle Salt (reek) Distance from Evaluated Stream 0.70	miles
CWH Name:	Distance from Evaluated Stream	-
J EWH Name:	Distance from Evaluated Stream	-
	H COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
JSGS Quedrengle Name:	Jackson, OH NRCS Soll Map Page: NRCS Soll Map Stream Order	
county: Jacksy	Township/City. Coal Township	
MISCELLANEOUS		
Base Flow Conditions? (Y/N):	Date of last precipitation: 8/22/2017 Quantity: 25"	
Photograph Information:	1 25.1	-
Elevated Turbidity? (Y/N): 1	Canopy (% open): 85/,	
Vere samples collected for w		
	C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
		-
s the sampling reach represe	entative of the stream (Y/N) If not, please explain:	_
Additional comments/descripti	ion of pollution impacts:	_
		_
BIOTIC EVALUATI	ION	_
1/	(if Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with t	he site
1/		he site
Performed? (Y/N): N	(if Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)	the site
erformed? (Y/N): New Y/N) New	(if Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)	he site
erformed? (Y/N): Nerformed? (Y/N) Nerformed? (Y/N) Nerformed? (Y/N) Nerformed?	(if Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)	the site
erformed? (Y/N): Nerformed? (Y/N) Nerformed? (Y/N) Nerformed? (Y/N) Nerformed?	(if Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)	he site
rogs or Tadpoles Observed?	(if Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)	he site
erformed? (Y/N): Ish Observed? (Y/N) rogs or Tedpoles Observed? comments Regarding Biology:	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)	he site
Performed? (Y/N): Nerformed? (Y/N). Sish Observed? (Y/N). Sign of Tadpoles Observed? Comments Regarding Biology. DRAWING At	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N)	
Performed? (Y/N): N Fish Observed? (Y/N) N Frogs or Tedpoles Observed? Comments Regarding Biology: DRAWING At	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)	
Performed? (Y/N): Nerformed? ((If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Voucher? (Y/N)	
reformed? (Y/N): Ish Observed? (Y/N). rogs or Tedpoles Observed? comments Regarding Biology: DRAWING A	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Voucher? (Y/N)	
Ish Observed? (Y/N): Ish Observed? (Y/N). Ish Obser	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N)	
Performed? (Y/N): Ish Observed? (Y/N). Inogs or Tadpoles Observed? Comments Regarding Biology: DRAWING Affinclude Important land	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Voucher? (Y/N)	
Performed? (Y/N): Elsh Observed? (Y/N): Frogs or Tedpoles Observed? Comments Regarding Biology: DRAWING Affinclude Important land	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Voucher? (Y/N)	
Performed? (Y/N): N Fish Observed? (Y/N) N Frogs or Tedpoles Observed? Comments Regarding Biology: DRAWING At	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Voucher? (Y/N)	
Performed? (Y/N): Elsh Observed? (Y/N): Frogs or Tedpoles Observed? Comments Regarding Biology: DRAWING Affinclude Important land	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Voucher? (Y/N)	
reformed? (Y/N): Ish Observed? (Y/N): rogs or Tadpoles Observed? comments Regarding Biology: DRAWING Affinclude Important land	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Voucher? (Y/N)	
sh Observed? (Y/N): sh Observed? (Y/N): rogs or Tedpoles Observed? comments Regarding Biology: DRAWING Affinclude Important land	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with to ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Noucher? (Y/N) Voucher? (Y/N)	

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

21	1/
11	
	21

SITE NAME/LOCATION AND PINE SITE NUMBER LENGTH OF STREAM REACH (ft) 155 DATE 8 23/17 SCORER KLV NOTE: Complete All Items On This For	RIVER BASIN SCIOTO R' LAT. 39.09377 LONG. 82.64728 RN COMMENTS SOH-KLV-O	VER CODE RIVER MILE TONIO'S PHWH Streams" for Instructions
STREAM CHANNEL MODIFICATIONS:	TURAL CHANNEL RECOVERED REC	COVERING RECENT OR NO RECOVERY
(Max of 40). Add total number of signific	ery type of substrate present. Check ONLY two cant substrate types found (Max of 8). Final metric percent PERCENT SILT [3 pt] LEAF PACKWOOD FINE DETRITUS [3] CLAY or HARDPAN MUCK [0 pts] ARTIFICIAL [3 pts] (A) TOTAL NUMBER	PERCENT PERCENT POINTS Y DEBRIS [3 pts] pts] HHEI Metric Points Substrate Max = 40
evaluation. Avoid plunge pools from roa > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]		one box): pts] OIST CHANNEL [0 pts]
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 8' 7") [20 pts] COMMENTS	average of 3-4 measurements) (Chec > 1.0 m - 1.5 m (> 3 ≤ 1.0 m (≤ 3'3') [5]	
	This information <u>must</u> also be complete	
RIPARIAN ZONE AND FLOODE RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m	FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	L R ☐ ☐ Conservation Tillage ☐ ☐ Urban or Industrial
Narrow <5m None COMMENTS	Field Residential, Park, New Field Fenced Pasture	Open Pasture, Row Crop Mining or Construction
Stream Flowing Subsurface flow with isolated poor		nel, isolated pools, no flow (Intermittent) I, no water (Ephemeral)
SINUOSITY (Number of bends p None 0.5	er 61 m (200 ft) of channel) (Check ONLY one 1.0 2.0 1.5 2.5	box): 3.0 >3
STREAM GRADIENT ESTIMATE Flat (0 5 ft/100 ft) Flat to Moderate	☐ Moderate (2 tr/100 ft)	to Severe Severe (10 ft/100 ft)

DDITIONAL STREAM INF	ORMATION (This information Must Also be Completed):
QHEI PERFORMI	ED? - Yes No QHEI Score(If Yes, Attach Completed QHEI Form)
DOWNSTREAM	DESIGNATED USE(S) Creek (1+1/2 Salt (reek) Distance from Evaluated Stream 0.72 miles
	Distance from Evaluated Stream
DEWH Name:	Distance from Evaluated Stream
	CH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name:	Jackson, OH NRCS Soll Map Page NRCS Soil Map Stream Order
county: Jackson	n Co. Township/city Coal Township
MISCELLANEOU	s
Base Flow Conditions? (Y/N)	Date of last precipitation: 8 22 17 Quantity: 25"
Photograph Information:	
Elevated Turbidity? (Y/N):	N Canopy (% open): 151.
	water chemistry? (Y/N): Note lab sample no, or id, and attach results) Lab Number:
Observation of the Print State	
	C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
s the sampling reach repres	sentative of the stream (Y/N) If not, please explain:
-	
Additional comments/descrip	otion of pollution Impacts:
BIOTIC EVALUA	TION
BIOTIC EVALUA	
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? (YAN)	Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
rogs or Tadpoles Observed	Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (
Comments Regarding Biolog	gy
1	
DRAWING	AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
	idmarks and other features of interest for site evaluation and a narrative description of the stream's location
	\sim - \sim
Liviemezion	KA) M)
How	(+ax) / 1) /
LOW	
- 2	
	7 2 4 2 () 2 /
	() () 7 Forest) ()
	PHWH Form Page - 2



NOTE: Complete All Items On This Form - Refe	RIVER BASIN SCIOTO RIVET DRAINAGE AREA (mi²) 0,0002 m; 2 1,09329 LONG, 82.64615 RIVER CODE RIVER MILE COMMENTS SOH-KLV-019 ET to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions HANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY.
	of substrate present. Check ONLY two predominant substrate TYPE boxes rate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT POINTS
COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [8 pts] SAND (<2 mm) [6 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE T	CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts] (A) 12 (B) 3 A+B
2. Maximum Pool Depth (Measure the maximum pevaluation. Avoid plunge pools from road culverts 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	pool depth within the 61 meter (200 ft) evaluation reach at the time of or storm water pipes) (Check ONLY one box): Som = 10 cm [15 pts]
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pte] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pte] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pte] COMMENTS	Check ONLY one box):
RIPARIAN ZONE AND FLOODPLAIN QU	Is Information <u>must</u> also be completed ALITY
R (Per Bank)	
Narrow <5m None COMMENTS	Crop
Stream Flowing Subsurface flow with isolated pools (Interstit	Moist Channel, isolated pools, no flow (Intermittent)
☐ None ☐ 1.0 ☐ 0.5 ☐ 1.5 STREAM GRADIENT ESTIMATE	200 ft) of channel) (Check ONLY one box): 2.0
☐ Flat (0.5 for 100 ft) ☐ Flat to Moderate ☐ Mo	oderate (2 I/100 ft) Moderate to Severe Severe (10 H/100 ft)

	ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
	QHEI PERFORMED? - Yes Alo QHEI Score (If Yes, Attach Completed QHEI Form)
	DOWNSTREAM DESIGNATED USE(S) O'CYCEK (11+16 Salt (166)) Distance from Evaluated Stream 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
	Total
	C 1 To well a
	county: Jackson Co. Township/City; Coal Jownship
	MISCELLANEOUS
	Base Flow Conditions? (Y/N): Date of last precipitation: 8/22/2017 Quantity: 425"
	Photograph Information:
	Elevated Turbidity? (Y/N): N Canopy (% open): 15/.
	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:
smi	Performed? (Y/N):
RC	FLOW FLOW



ATE 8/23/17 SCORER KLV	COMMENTS SOH-KLV-	VER CODE RIVER MILE 023 r Ohlo's PHWH Streams" for Instructions
TREAM CHANNEL SONONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RE	COVERING RECENT OR NO RECOVERY
(Max of 40). Add total number of significa	ry type of substrate present. Check ONL Y two ant substrate types found (Max of 8). Final metric ERCENT TYPE SILT [3 pt] LEAF PACKWOOD FINE DETRITUS [3 CLAY or HARDPAN CLAY or HARDPAN ARTIFICIAL [3 pts] (A)	PERCENT DO DEBRIS [3 pts] Do pts] HHE Metri Point Substra Max = 4
	eximum pool depth within the 61 meter (200	
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]		OIST CHANNEL (0 pts)
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	>5 cm - 10 cm [15 cm 5 pts] <5 cm 5 pts] NO WATER OR M MAXIMUM	OIST CHANNEL [0 pts] OOL DEPTH (centilmeters): Ck ONLY one box): Bankfu Width
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measured as the assumed	>5 cm - 10 cm [15]	OIST CHANNEL (0 pts) COOL DEPTH (centimeters): Ck ONLY one box): Width Max=30 ANKFULL WIDTH (meters)
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measured as the assumed	>5 cm - 10 cm [15 cm 5 cm	OIST CHANNEL (0 pts) COOL DEPTH (centimeters): Ck ONLY one box): Bankfu Width Max=30 BANKFULL WIDTH (meters)
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measured as the at the second sec	Som - 10 cm [15] Som - 10 cm [15] Som - 10 cm [15] Som - 10 cm [15] Som - 10 cm [15] NO WATER OR M MAXIMUM F Som - 10 cm [15] NO WATER OR M MAXIMUM F Som - 10 cm [15] NO WATER OR M Som - 10 cm [15] AVERAGE F Som - 10 cm [15] AVERAGE F AVERAGE F AVERAGE F AVERAGE F AVERAGE F Som - 10 cm [15] Som - 10 cm [15] Som - 10 cm [15] AVERAGE F AVER	OIST CHANNEL (0 pts) COOL DEPTH (centimeters): Ck ONLY one box): Bankfu Width Max=31 Cod d Right (R) as looking downstream L R Conservation Tillage
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS BANK FULL WIDTH (Measured as the alignment of the second of the secon	MAXIMUM F Average of 3-4 measurements) (Che	OIST CHANNEL (0 pts) COOL DEPTH (centimeters): CK ONLY one box): S'3"-4" B") [15 pts] PANKFULL WIDTH (meters) Ced CR R Conservation Tillage Urban or Industrial Open Pasture, Row Crop

OHE! DED	M INFORMATION (This Infor				
QUEL PER	ORMED? - Tyes No	QHEI Score(If	Yes, Altach Completed C	HEI Form)	
	EAM DESIGNATED USE(S)			n Evaluated Stream	
EWH Name:				Evaluated Stream	
MAPPING:	ATTACH COPIES OF MAPS, IN	NCLUDING THE ENTIRE WAT	ERSHED AREA. CLEAR	Y MARK THE SITE LOC	АПОН
GS Quadrangle N	me: Jackson, (OH NRCS S	oil Map Page:	IRCS Soil Map Stream (Order
unty: Jacks	m Co.	Township / City.	Coal	gidznwo	
MISCELLA					
se Flow Conditions	? (Y/N): Date of last	t precipitation: 8 22 2	Quantity:_	.25"	
otograph Information	n:				
evated Turbidity? ()	N): N Canopy (9	% open): 151.			
re samples collect	ed for water chemistry? (Y/N):	Note lab sample n	o. or id. and attach result	s) Lab Number:	4
ld Measures: T	emp (°C) Dissolved O	Oxygen (mg/l)pH	(S.U.) Conduc	etivity (µmhos/cm)	
he sampling reach	representative of the stream ((Y/N) If not, please ax	plain:		
ditional comments	lescription of pollution impacts	9.			
	The state of the s				
BIOTIC EV	ALUATION			1 1 7	
erformed? (Y/N):	(If Yes, Record all obs ID number. Include a Voucher? (Y/N) N Served? (Y/N) N Voucher?	servations. Voucher collection appropriate field data sheets from Salamanders Observed? (Y/N) Aquatic Macroin	m the Primary Headwater	Habitat Assessment Man	ual)
erformed? (Y/N):	(If Yes, Record all obs ID number. Include a Voucher? (Y/N) N Served? (Y/N) N Voucher?	appropriate field data sheets from Salamanders Observed??? (Y/N) \(\frac{\text{V}}{\text{Aguatic Macroin}}\)	m the Primary Headwater (Y/N) N Voucher? (vertebrates Observed? (Habitat Assessment Man	nual)
erformed? (Y/N):	(If Yes, Record all obtain ID number. Include a Noucher? (Y/N) Noucher? (Y/N) Noucher? Biology:	appropriate field data sheets from Salamanders Observed? ? (Y/N) Aquetic Macroin	m the Primary Headwater (Y/N) \(\sum_{\text{V}} \) Voucher? (vertebrates Observed? (Habitat Assessment Man (YN) N Voucher? (YN) S must be complete	nual) N) ted):
sh Observed? (Y/N):	(If Yes, Record all observed in number. Include a Nougher? (Y/N) Nougher? (Y/N) Nougher? Biology.	appropriate field data sheets from Salamanders Observed? ? (Y/N) Aquetic Macroin	m the Primary Headwater (Y/N) \(\sum_{\text{V}} \) Voucher? (vertebrates Observed? (Habitat Assessment Man (YN) N Voucher? (YN) S must be complete	nual) N) ted):
h Observed? (Y/N): h Observed? (Y/N) gs or Tadpoles Ob mments Regarding DRAW Include Import	(If Yes, Record all observed in number. Include a Nougher? (Y/N) Nougher? (Y/N) Nougher? Biology.	appropriate field data sheets from Salamanders Observed? ? (Y/N) Aquetic Macroin	m the Primary Headwater (Y/N) \(\sum_{\text{V}} \) Voucher? (vertebrates Observed? (Habitat Assessment Man (YN) N Voucher? (YN) S must be complete	nual) N) ted):
nformed? (Y/N):	(If Yes, Record all observed in number. Include a Nougher? (Y/N) Nougher? (Y/N) Nougher? Biology.	appropriate field data sheets from Salamanders Observed? ? (Y/N) Aquetic Macroin	m the Primary Headwater (Y/N) \(\sum_{\text{V}} \) Voucher? (vertebrates Observed? (Habitat Assessment Man (YN) N Voucher? (YN) S must be complete	nual) N) ted):
sh Observed? (Y/N):	(If Yes, Record all observed in number. Include a Nougher? (Y/N) Nougher? (Y/N) Nougher? Biology.	appropriate field data sheets from Salamanders Observed? ? (Y/N) Aquetic Macroin	m the Primary Headwater (Y/N) \(\sum_{\text{V}} \) Voucher? (vertebrates Observed? (Habitat Assessment Man (N) N Voucher? (Y) S must be complete	nual) N) ted):
sh Observed? (Y/N):	(If Yes, Record all observed in number. Include a Nougher? (Y/N) Nougher? (Y/N) Nougher? Biology.	appropriate field data sheets from Salamanders Observed? ? (Y/N) Aquetic Macroin	m the Primary Headwater (Y/N) \(\sum_{\text{V}} \) Voucher? (vertebrates Observed? (Habitat Assessment Man (N) N Voucher? (Y) S must be complete	nual) N) ted):
erformed? (Y/N):	(If Yes, Record all observed in number. Include a Nougher? (Y/N) Nougher? (Y/N) Nougher? Biology.	appropriate field data sheets from Salamanders Observed? ? (Y/N) Aquetic Macroin	m the Primary Headwater (Y/N) \(\sum_{\text{V}} \) Voucher? (vertebrates Observed? (Habitat Assessment Man (N) N Voucher? (Y) S must be complete	nual) N) ted):
erformed? (Y/N):	(If Yes, Record all observed in number. Include a Nougher? (Y/N) Nougher? (Y/N) Nougher? Biology.	appropriate field data sheets from Salamanders Observed? ? (Y/N) Aquetic Macroin	m the Primary Headwater (Y/N) \(\sum_{\text{V}} \) Voucher? (vertebrates Observed? (Habitat Assessment Man (N) N Voucher? (Y) S must be complete	nual) N) ted):
rformed? (Y/N):	(If Yes, Record all observed in number. Include a Nougher? (Y/N) Nougher? (Y/N) Nougher? Biology.	appropriate field data sheets from Salamanders Observed? ? (Y/N) Aquetic Macroin	m the Primary Headwater (Y/N) \(\sum_{\text{V}} \) Voucher? (vertebrates Observed? (Habitat Assessment Man (N) N Voucher? (Y) S must be complete	nual) N) ted):



TE 8 2	STREAM REACH (ft) 63 311 SCORER KLV complete All Items On This F	COMME	282 ONG 82 64475 RIV ENTS SOH-VLV-O	24		
SCANITY	CHANNEL MINONE /	NATURAL CHANNE	RECOVERED REC	OVERING RI	ECENT OR NO RECO	VERY
	BSTRATE (Estimate percent of ex of 40). Add total number of sign BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts]	PERCENT		score is sum of b DEBRIS [3 pts]		HHE Metr Poin Substr Max =
ORE OF	Total of Percentages of Slabs, Boulder, Cobble, Bedrock TWO MOST PREDOMINATE SU	BSTRATE TYPES:	TOTAL NUMBER	R OF SUBSTRAT		A + B
eva > 30	lustion. Avoid plunge pools from r centimeters [20 pts]		m water pipes) (Check ONLY of >5 cm - 10 cm (15 p	one box):		Max =
	5 - 30 cm [30 pts] - 22.5 cm [25 pts]		S om [5 pts] NO WATER OR MO	IST CHANNEL [0	pts]	0
COI	- 22.5 cm [25 pts] VIMENTS	he average of 3-4 n	MAXIMUM PO	OOL DEPTH (cen	timeters):	Bankf
COI BAI > 4.0 > 3.0	- 22.5 cm [25 pts]		MAXIMUM PO	OOL DEPTH (cen k <i>ONLY</i> one box) 3°-4'8') [15 pts]	timeters):	Widt
BAI > 4.0 > 3.0 > 1.5	- 22.5 cm [25 pts] VIMENTS NK FULL WIDTH (Measured as t meters (> 13") [30 pts] m - 4.0 m (> 9" 7" - 13") [25 pts]		MAXIMUM PO neasurements) (Check	OOL DEPTH (cen k <i>ONLY</i> one box) 3°-4'8') [15 pts]	timeters):	Widtl
BAI > 4.0 > 3.0 > 1.5	- 22.5 cm [25 pts] MMENTS NK FULL WIDTH (Measured as timeters (> 13) [30 pts] m - 4.0 m (> 9' 7" - 13) [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	This inform	MAXIMUM PO MAXIMUM PO Maximum Po Check	OOL DEPTH (cen k ONLY one box) 3'- 4' 8') [15 pts] ts] ANKFULL WIDTH	timeters):	Bankf Widti Max=
BAI >4.0 >3.0 >3.0 >1.5 COI	- 22.5 cm [25 pts] WMENTS WK FULL WIDTH (Measured as timeters (> 13) [30 pts] m - 4.0 m (> 9' 7" - 13') [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] WMENTS RIPARIAN ZONE AND FLOORIPARIAN WIDTH	This infonoched	MAXIMUM PO measurements) (Check > 1.0 m - 1.5 m (> 3') ≤ 1.0 m (≤ 3'3') [5 p AVERAGE BA mation must also be complete ANOTE: River Left (L) and I QUALITY	OOL DEPTH (cen k ONLY one box) 3"- 4"8") [15 pts] ts] ANKFULL WIDTH d Right (R) as looki	timeters):	Widtl
BAI > 4.0 > 3.0 > 1.5	- 22.5 cm [25 pts] WMENTS WK FULL WIDTH (Measured as timeters (> 13) [30 pts] m - 4.0 m (> 9' 7" - 13') [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] WMENTS RIPARIAN ZONE AND FLOOR RIPARIAN WIDTH R (Per Bank)	This infono DPLAIN QUALITY FLOODPLAIN L R (Mo	MAXIMUM PO measurements) (Check > 1.0 m - 1.5 m (> 3') ≤ 1.0 m (≤ 3' 3") [5 p) AVERAGE BA mation must also be complete ANOTE: River Left (L) and	OOL DEPTH (cen k ONLY one box) 3'-4'8') [15 pts] ts] ANKFULL WIDTH d Right (R) as looki	timeters):	Widt
BAI > 4.0 S S S S S S S S S	- 22.5 cm [25 pts] WMENTS WK FULL WIDTH (Measured as timeters (> 13) [30 pts] m - 4.0 m (> 9' 7" - 13') [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] WMENTS RIPARIAN ZONE AND FLOOR RIPARIAN WIDTH R (Per Bank)	This infononce of the complete	MAXIMUM PO measurements) (Check > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3'3') [5 pi AVERAGE BA mation must also be complete ANOTE: River Left (L) and another porest, Wetland mature Forest, Wetland mature Forest, Shrub or Old	COL DEPTH (cen k ONLY one box) 3"- 4'8") [15 pts] ts] ANKFULL WIDTH d Right (R) as looki	timeters):	Widt
BAI > 4.0 S S S S S S S S S	- 22.5 cm [25 pts] MMENTS NK FULL WIDTH (Measured as timeters (> 13) [30 pts] m - 4.0 m (> 9' 7" - 13) [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] MMENTS RIPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide > 10m Moderate 5-10m	This Information QUALITY FLOODPLAIN L R (Mo	MAXIMUM PO measurements) (Check > 1.0 m - 1.5 m (> 3' ≤ 1.0 m (≤ 3'3') [5 pi AVERAGE BA mation must also be complete ANOTE: River Left (L) and another porest, Wetland mature Forest, Wetland mature Forest, Shrub or Old	COL DEPTH (cen k ONLY one box) 3"- 4'8") [15 pts] ANKFULL WIDTH d Right (R) as looki	timeters): (meters) ing downstream onservation Tillage than or Industrial onen Pasture, Row	Widt
> 100 COI	- 22.5 cm [25 pts] MMENTS NK FULL WIDTH (Measured as t meters (> 13) [30 pts] m - 4.0 m (> 9' 7" - 13) [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] MMENTS RIPARIAN ZONE AND FLOO RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m	This infomodelian QUALITY FLOODPLAIN L R (Modelian Material Mate	MAXIMUM PO measurements) (Check > 1.0 m - 1.5 m (> 3') ≤ 1.0 m (≤ 3' 3") [5 pr AVERAGE BA matlon must also be completed ANOTE: River Left (L) and IN QUALITY ost Predominant per Bank) ure Forest, Wetland nature Forest, Shrub or Old d	COL DEPTH (cen K ONLY one box) 3"-4'8") [15 pts] ANKFULL WIDTH d Right (R) as looki	timeters): (meters) ing downstream onservation Tillage than or Industrial	Widt
> 100 COI	- 22.5 cm [25 pts] MMENTS NK FULL WIDTH (Measured as t meters (> 13) [30 pts] m - 4.0 m (> 9' 7" - 13) [25 pts] m - 3.0 m (> 4' 8" - 9' 7") [20 pts] MMENTS RIPARIAN ZONE AND FLOOR RIPARIAN WIDTH R (Per Bank) Wide >10 m Moderate 5-10 m Narrow <5m None	This infon DPLAIN QUALITY FLOODPLAIN L R (Mo Mai	MAXIMUM PO measurements) (Check > 1.0 m - 1.5 m (> 3') ≤ 1.0 m (≤ 3' 3") [5 pr AVERAGE BA mation must also be completed ANOTE: River Left (L) and IN QUALITY ost Predominant per Bank) cure Forest, Wetland nature Forest, Wetland nature Forest, Shrub or Old d sidential, Park, New Field iced Pasture ONLY one box): Moist Channel	COL DEPTH (cen k ONLY one box) 3'-4'8') [15 pts] ts] ANKFULL WIDTH d Right (R) as looki	itimeters): (meters) ing downstream from Tillage than or Industrial the pasture, Row copining or Construction no flow (Intermittent)	Widt

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/	4	
Performed? (Y/N): Note: A light of the site of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Additional comments/description of pollu	ution impacts:
Performed? (Y/N): Note: A light of the site of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (comments of police	110000000
Performed? (Y/N): Note: A light of the site of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (
Performed? (Y/N): Note: A light of the site of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (
Performed? (Y/N): Note: A light of the site of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (-	
Performed? (Y/N): Note: A light of the site of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (
Performed? (Y/N): Note: A light of the site of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (PIOTIC EVALUATION	
Performed? (Y/N): Note: A light of the site of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) A paratic Macroinvertebrates Observed? (BIOTIC EVALUATION	
Fish Observed? (Y/N) Voucher?	BIOTIC EVALUATION	
Fish Observed? (Y/N) Voucher?	BIOTIC EVALUATION	
Fish Observed? (Y/N) Voucher?	N	
Fish Observed? (Y/N) \(\) Voucher? (Y/N) \(\) Vou		Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site.
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	Performed? (Y/N): 1 Y (If Yes, R	100010 MI ODGET VALIDITO. TOMONIONIO OPERATE TO THE PROPERTY OF THE PERSON OF THE PERS
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	Performed? (Y/N): 17 (If Yes, R	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
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	ID numbe	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
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	ID numbe	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
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 The stream's location of the stream's	ID number	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
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 The stream's location of the stream's	ID number	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) \(\bigcap\)	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) \(\bigcap\)	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) \(\bigcap\)	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) \(\bigcap\)	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) \(\bigcap\)	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) \(\bigcap\)	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) \(\bigcap\)	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Smissian () [Immoduse)	Fish Observed? (Y/N) Voucher: Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology:	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\frac{\text{N}}{\text{Salamanders Observed?}}\) (Y/N) \(\frac{\text{Voucher?}}{\text{Voucher?}}\) (Y/N) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{VN}}{\text{VN}}\) \(\text{
Smissian () [Immoduse)	Fish Observed? (Y/N) Voucher: Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology:	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\frac{\text{N}}{\text{Salamanders Observed?}}\) (Y/N) \(\frac{\text{Voucher?}}{\text{Voucher?}}\) (Y/N) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{Voucher?}}{\text{VN}}\) \(\frac{\text{VN}}{\text{VN}}\) \(\text{
Smissian () [Immoduse)	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology: DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology: DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology: DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology: DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
FLOW 2	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology: DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
FLOW 7	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
2 2 2	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
2 2 0	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
2020)	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
12 (2 (2) (2)	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
1 3 6 3 6 3	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
1 3 6 3 6 7	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology: DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology: DRAWING AND NAR Include Important landmarks and	er. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ? (Y/N) \(\bigcap \) Salamanders Observed? (Y/N) \(\bigcap \) Voucher? (Y/N) \(\bigcap \)
June 20, 2008 Revision	Fish Observed? (Y/N) Voucher Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology. DRAWING AND NAR Include Important landmarks and FLOW	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) Voucher? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (



SITE NAME/LOCATION AT PINCE SITE NUMBER SITE NUMBER SITE NUMBER SITE NUMBER SITE NUMBER SITE NOTE: Complete All Items On This	LAT. 39,09250	BASIN 3(1010) ONG. 82.64476RI SOH-KLV-		
STREAM CHANNEL MODIFICATIONS:	/NATURAL CHANNEL C	RECOVERED CIRE	COVERING PRECENT OF NO R	ECOVERY
(Max of 40). Add total number of si TYPE □ □ BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] □ COBBLE (65-256 mm) [12 pts] □ GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts]		nd (Max of 8). Final metri SILT (3 pt) LEAF PACKWOOD FINE DETRITUS (3 CLAY or HARDPAN MUCK [0 pts]	PERCENT Y DEBRIS [3 pts] pts] [0 pt]	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedro SCORE OF TWO MOST PREDOMINATE S			ER OF SUBSTRATE TYPES:	A+B
2. Maximum Pool Depth (Measure to evaluation. Avoid plunge pools from > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS		er pipes) (Check ONLY > 5 cm - 10 cm [15 < 5 cm [5 pts] NO WATER OR Me	one box):	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as > 4:0 meters (> 13') [30 pts] 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts	WA CASSING	rements) (Chec	pts]	Bankfull Width Max=30
COMMENTS	*	AVERAGE B	ANKFULL WIDTH (meters)	5
RIPARIAN ZONE AND FLO RIPARIAN WIDTH			ed I Right (R) as looking downstream☆	
(Per Bank) Wide >10m Moderate 5-10m	☐ ☐ Mature Fe	dominant per Bank) prest, Wetland Forest, Shrub or Old	L R Conservation Tillage Urban or Industrial	
□ □ Narrow <5m □ □ None COMMENTS	Residenti	al, Park, New Field asture	Open Pasture, Row Crop Mining or Constructi	on
FLOW REGIME (At Time of Stream Flowing Subsurface flow with isolated COMMENTS		Moist Chan	nel, isolated pools, no flow (Intermitte I, no water (Ephemeral)	ent)
SINUOSITY (Number of ber None 0.5	ds per 61 m (200 ft) of char 1.0 1.5	(Check <i>ONLY</i> one 2.0 2.5	box): 3.0 >3	
STREAM GRADIENT ESTIMATE Flat (0.5 h/100 h) Flat to Moderate	Moderate (2 ft/100	n) Moderate	to Severe Severe (10	M/100 R)

ADDITION	AL STREAM INFORMATION (This Information Must Also be Completed):
- (AHEI PERFORMED? - Tyes Alo QHEI Score(If Yes, Attach Completed QHEI Form)
л 4 н ww С	DOWNSTREAM DESIGNATED USE(S) K CROK (1++ Salt Crock) Distance from Evaluated Stream 0.84 m; 105
⊒ сwн и	ame: Distance from Evaluated Stream
J EWH N	ame: Distance from Evaluated Stream
	drangle Name: Tacks on OH NRCS Soil Map Page: NRCS Soil Map Stream Order
ounty:	TOWNSHIP TOWN
	IISCELLANEOUS OI22/17
ase Flow	Conditions? (Y/N): Date of last precipitation; 8 22/17 Quantity: 425"
hotograph	Information:
levaled Tu	arbidity? (Y/N): N Canopy (% open): 151.
/ere samp	les collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
eld Meas	ures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
the same	ling reach representative of the stream (Y/N) If not, please explain:
	(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) red? (Y/N) Voucher? (Y/N)
	DRAWNO AND MADDATIVE DECORPTION OF CTREAM DEACH /This must be completed.
Inclu	DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): de important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
more	
	4 (Immaflire) / ") (
	(1) Storest of (1)
LOW	
,	
1	
1	
(
	Immortune () ()
	Immortune (5) (5)

P		
ı	111	
ı	4	
ı		

NOTE: Co	scorer KU		OMMENTS SOH-KLV- to "Field Evaluation Manual fo		ns" for Instructions
TREAM CH		MATURAL CH	ANNEL DRECOVERED DRE	ECOVERING PRECENT	OR NO RECOVERY
(Max	STRATE (Estimate percent of 40). Add total number of s DR SLABS [16 pts] DULDER (>256 mm) [16 pts] DBBLE (65-256 mm) [12 pts] RAVEL (2-64 mm) [9 pts] ND (<2 mm) [6 pts]	PERCENT	substrate present. Check ONLY two ite types found (Max of 8). Final metric types found (Max of 8). Final metric is substrated in the subst	PER (C) OY DEBRIS (3 pts) 3 pts] V [0 pt]	WPE boxes & B. Metr Poin Substr Max =
Bldr S	Total of Percentages of abs, Boulder, Cobble, Bedro O MOST PREDOMINATE S		(A) 2 TOTAL NUME	ER OF SUBSTRATE TYPE	(B) 4 A + B
evalua > 30 ce > 22.5	num Pool Depth (Measure t tion. Avoid plunge pools from ntimeters (20 pts) - 30 cm (30 pts) 22.5 cm (25 pts)	he maximum po n road culverts o	ool depth within the 61 meter (200 r storm water pipes) (Check ONL > 5 cm - 10 cm [1! > 5 cm [5 pts] NO WATER OR N	Y one box):	Pool De Max =
COMM	ENTS		MAXIMUM	POOL DEPTH (centimeters	401
> 4.0 mi > 3.0 m	FULL WIDTH (Measured as sters (> 13') [30 pts] - 4.0 m (> 9' 7' - 13') [25 pts] - 3.0 m (> 4' 8" - 9' 7") [20 pt	AL Marie	☐ > 1.0 m - 1.5 m (> ☐ ≤ 1.0 m (≤ 3'3") [5	ock ONLY one box): 3' 3" - 4' 8") [15 pts] pts] BANKFULL WIDTH (meters	Bankf Width Maxes 20
	RIPARIAN ZONE AND FLO		Information <u>must</u> also be comple LITY	ted d Right (R) as looking down	stream &
	RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m		PLAIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field	L R Conservat	T
00	Naιτοw <5m None COMMENTS	00	Residential, Park, New Field Fenced Pasture	Open Past Crop Mining or 0	ture, Row Construction
	FLOW REGIME (At Time of		Moist Char	nnel, isolated pools, no flow el, no water (Ephemeral)	(Intermittent)
	Subsurface flow with isolated COMMENTS				

ADDITIONAL STREAM INFORMATION (This		
QHEI PERFORMED? - Yes	No QHE Score(If Yes,	, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE WWH Name: HOTSE	(S) cook	Distance from Evaluated Stream 1.20 miles
CWH Name:		Distance from Evaluated Stream Distance from Evaluated Stream
EWH Name:		Distance from Evaluated Stream
	OH	SHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Jackso	NRCS Soil N	Map Page: NRCS Soil Map Stream Order
county: Jackson Co	Township / City:	(oal lownship
MISCELLANEOUS	0/12/1-	Quantity: 25"
Base Flow Conditions? (Y/N): Date of	flast precipitation:	Quantity:
Photograph Information:		
Elevated Turbidity? (Y/N): Cand	py (% open): 15 /.	
Were samples collected for water chemistry? (Y	(Note lab sample no. or	r ld. and attach results) Lab Number.
		J.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stre	am (Y/N) If not, please explain	
Additional comments/description of pollution (m	pacts:	
BIOTIC EVALUATION		
		tional. NOTE: all voucher samples must be labeled with the site
		ne Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N)	Salamanders Observed? (Y/N	N Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	ner (Y/N) 1 1 Aquatic Macroinvert	porates Observed? (17/N) 11 Voucher? (17/N) 1
Confidence Regarding Biology.		*
		1
DRAWING AND NARRATIV	E DESCRIPTION OF STREAM	AM REACH (This must be completed):
		on and a narrative description of the stream's logation
() () ()	9	
1 1 - 1	Transmission	1 9
1317	ROW	I (TYY
FLOW ->	V- 1	
LOVY TO THE PROPERTY OF THE PR		
() (
TIME /		/ Pine,
Harry /		
		(Forest
	PHWH Form Page - 2	

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

3/29/2018 1:55:13 PM

in

Case No(s). 18-0031-EL-BTX

Summary: Application (5 Parts) electronically filed by Ms. Christen M. Blend on behalf of AEP Ohio Transmission Power Company, Inc.