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



SITE NAME/LOCATION ENPOS	1 1:185
SITE NUMBERS BB RIVER BASIN DRAINAGE AI LENGTH OF STREAM REACH (ft) 200 LAT. 40.143 LONG. 83.6201 RIVER CODE RIVER	
DATE 129 SCORER BMF COMMENTS TREACLE CREK - EW	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Stream	ns" for Instructions
STREAM CHANNEL	OR NO RECOVERY
MODIFICATIONS: Cheanelized A Duch	
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate T	VPF hoxes
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A	&B. HHEI
DD BLDR SLABS M6 pist 23	Dainta
OO BEDROCK [16 pt] OO FINE DETRITUS [3 pts]	Substrate
● COBBLE (65-256 mm) [12 pts] / 30	Max = 40
SAND (\$2 mm) [6 pts] 21	
Total of Percentages of 32 % (A)	(B) / A+B
Bldr Slabs, Boulder, Cobble, Bedrock 901 TOTAL NUMBER OF SUBSTRATE TYPES:	:s: 0
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the ti	
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
22.5 30 cm [30 pis]	20
COMMENTS MAXIMUM POOL DEPTH (centimeters	33 T
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
	Width Max=30
□ ≥ (6 m ≥ 3 0 m (8 6 7 / 4 8 9) [20 pts]	11'10" 25
COMMENTSAVERAGE BANKFULL WIDTH (meters	5)
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking down RIPARIAN WIDTH FLOODPLAIN QUALITY	stream &
L``R (Per Bank) L R (Most Predominant per Bank) L R U Wide >10m D D Mature Forest, Wetland D Conservati	ion Tillage
Moderate 5-10m Immature Forest, Shrub or Old Urban or Ir	ndustrial
Field Field State of	ture, Row
17 7 7	Construction
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing	(Intermittent)
	(Intermittent)
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow Dry channel, no water (Ephemeral)	(Intermittent)
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow Dry channel, no water (Ephemeral)	(Intermittent)
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 0.5 COMMENTS CO	· · · · · · · · · · · · · · · · · · ·
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 0.5 COMMENTS CO	Cevere (10 fu100 fi)

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):
QHEI PERFORMED? - Yes No QHEI Score 45 (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
UWH Name: Distance from Evaluated Stream
☐ CWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: North Lewis bwy NRCS Soil Map Page: 33 NRCS Soil Map Stream Order 2
USGS Quadrangle Name: North Lewis buy NRCS Soil Map Page: 33 NRCS Soil Map Stream Order 2 County: Changaign Township/City: United Twp / Wbana
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation: Zday Quantity:
Photograph Information: Y25
Elevated Turbidity? (Y/N): Y Canopy (% open): 1/0 0
Were samples collected for water chemistry? (Y/N): _ リ (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): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Frogs or Tadpoles Observed? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology: Green Froz, Ebiny jewel wing adults,
0 , 0
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
An Chibeans who Rittle Wark
Shumper of Jum Shumper of Jumps of Jump
-u8/ 3
FLOW 16" II"
33 cm g Boulder
Cobble Grandle gran soft
FLOW 33 cm g 12": P 16" Cobble Grand Boulder Hard pm 6. H
An I was a series of the serie
N.
V PHWH Form Page - 2
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GTREAM BB _ Cheek Drawing Hear Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score:

Stream & Location: ยีบริกา	RM:Date:(6 29 1
Scorers Full Name & Affiliation:	000
River Code: STORET #: Lat./ Long.: 1/0. 1 4	3_ 18 3. 6 2 0 L Office verified location
1] SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present Check C	ONE (Or 2 & average)
BEST TYPES POOL RIFFLE OTHER TYPES POOL RIFFLE ORIGIN	QUALITY
BEDRYSEABSTOT	HEAWY[-2] MODERATE [-1] Substrate
Ø' COBBLE (B) ≥ 0/. □ MUCK (2) □ WETLANDS (0)	O NORMALIO
GRAVE IN STANDIGHT SET [2] SANDIGHT CONTROL OF SANDIGHT SANDIGHT CONTROL OF SANDIGHT C	CODE DIEVIENSIMEIEZI
(Score natural substrates: innore	MODERATE MI MAYOUT
NUMBER OF BEST TYPES: 2014 or more [2] sludge from point-sources)	
2 +0+6+ -1 - = 15	Antoniana, 1875, mart 2 d. 1, 2, 1984 d h 3 and ext 2.
2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more commo quality; 2-Moderate amounts, but not of highest quality or in small amounts	or of marginal AMOUNT
quality: 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water	, large Check ONE (Or 2 & average)
diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional	RS [1] MODERATE 25-75% [7]
OVERHANGING VEGETATION (1) ROOTWADS [1] AQUATIC MACROPHY SHALLOWS (IN SEOW WATER) [1] \ BOULDERS (II) \ EQGS OR WOODY DE	
SHAUTOWS (INSCOM WATER) [1] 1 BOULDERS [1] LOGS OR WOODY DE	Cover
Comments L L 2 = 5	Maximum 5
	20
3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average) SINUOSITY DEVELOPMENT CHANNELIZATION STABILITY	
☐ HIGH 14 ☐ EXCELLENT [7] ☐ NONE [6] [7] ☐ ☐ HIGH [3] [8]	• •
□ MODERATE [3] □ GOOD [5] □ RECOVERED [A] □ MODERATE [2] ☑ RECOVERING [3] □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
□ NONE[1] □ POOR [1] □ RECENT OR NO RECOVERY [1]	Channel
Comments $2+3+3+2$	Maximum 20
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (O. River right looking downstream RIPARIAN WIDTH FLOOD PLAIN QUALITY	
EROSION WIDE 350m 41 FOREST SWAMP 37	CONSERVATION TILLAGE (1)
O NONE / LITTLE (3) O MODERATE 10:50m (3) O SHRUB: OR OLD: FIELD [2] O MODERATE [2] O NARROW 5-10m [2] O RESIDENTIAL PARK, NEW FIELD	U Ururban Orthoustrial [0] MI U Mining Construction [0]
☐ ☐ HEAVY_ISEVERE_[1] ■ PR VERY NARROW <5m [1] ☐ ☐ FENCED PASTURE [1]	Indicate predominant land use(s)
□ □ NONE [0] □ □ OPEN PASTURE ROWCROP [0]	past 100m riparian. Riparian
2+1+1=4	Maximum 10
5] POOL / GLIDE AND RIFFLE / RUN QUALITY MAXIMUM DEPTH CHANNEL WIDTH CURRENT VELOCITY	Recreation Potential
MAXIMUM DEPTH CHANNEL WIDTH CURRENT VELOCITY Check ONE (ONLY!) Check ONE (Or 2 & average) Check ALL that apply	Primary Contact
□ ≥11m161 ■ □ EOOEWIDTH > RIFFEE WIDTH [Z] □ TORRENTIAL [-1] ■ SLOW [1]	Secondary Contact
☐ OZ (III) ☐ POOCWIDHE RIFTLE WIDTH III ☐ VERY FAST[1] ☐ INTERSTIT ☐ DA (OZMIZ)	
BY 0.2≥0.4m (1) □ MODERATE 1) □ EDDIES (1	
Comments $ +0 + = 2$	Maximum 12
Indicate for functional riffles; Best areas must be large enough to support	a population NO RIFFLE [metric=0]
of riffle-obligate species: Check ONE (Or 2 & average). RIFFLE DEPTH RUN DEPTH RIFFLE / RUN SUBSTRATE RIFF	LE / RUN EMBEDDEDNESS
□ BEST AREAS > 10cm [2] □ MAXIMUM > 50cm [2]	MANUAL PROPERTY OF THE PROPERT
MIBESTAREAS Com [1] MAXIMUM 500m [1] MODESTABLE (C.G. Large Gravel) [1] UNSTABLE (C.G. Large Gravel) [1] UNSTABLE (C.G. Large Gravel) Sand) [0]	Moderate 0
Telephone (ice)	DEXTENSIVE IN Maximum

DRAINAGE AREA MODERATE 16-101	%GLIDE: 35 Gradient 2
(m ²) Highe very high (10-5) %RUN: (D)	%RIFFLE: (5) Maximum 10
EPA 4520	06/16/06

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A LM	•	+114.	probleme CRZ	nvif	
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	Ditched veget	•••		105 BY	
ated No	ofest L		2mgd	LOS 64	Stream Drawing:
гедасу Тгее:	PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	,	IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE		NOS SOS CI RECREA
Toodblone x width	WASH H ₂ 0 / TILE / H ₂ 0 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / ŚTAGNANT		ISTANDS / SCONKED VEWONKED / STONES		□ 30% ēē.% □ 2€0% 886% sud cu □ 2866% 0BEN 8
bankfull xidepth VVD ratio	PANK EKOSION SURFACE		LEVEED / ONE SIDED ROVING-BEDLOAD-STABLE MOVING-BEDLOAD-STABLE	UNINGYNCE ODOK ULSVEH TILLEY UOLGEHEEN TO	CANOPY 1st cm
z psykloliwari) w psykloliwari w psykloliwa w psykloliwari w psykloliwa w psykloliwa w psykloliwa w psykloliwa psykloliwa w psykloliwa psyklo	BMPs-CONSTRUCTION-SEDIMENT		SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA		
ujdap <u>x</u> ujup <u>x</u>	WWTP \ CSO \ WPDES \ INDUSTRY HARDENED \ URBAN \ DIRT&GRIME CONTAMINATED \ LANDFILL		PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG-SUCCESSION-OLD	☐ MUISANGE ALGAE	O SKU COSO CW
F] MEASUREMENTS	รลกรรเ โส	Circle some & COMMENT	D] MAINTENANCE	BIVESTHETICS	YTIAAJO CLARITY
					DISTRICE DANGER DE VIGORIO DE VIG
7185	STORES C		10-02	-1000 9950	
98	WHIJULS				METHOD STAGE 1st -sample pass- 2nd —
es's directions, etc.	Sampling observations, Concerns, Acc	v Observed - Inferred, Other	reach typical of steam?, Recreation	el 'Keach consistency' le :	A] SAMPLED REACH Check ALL that apply

Mod class I

70.5	1.7
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			UNT	40 TY	each (reek	НН	El Score	sum of	metrics '		0
LENGT	H OF 8	STREAM R	EACH (ft)	NUMBER 1	_LAT. 40.		NG. 83.	101786 R	IVER CODE		EAREA (mi²) RIVER MILE	,
			II Items Or	า This Fo	m - Refer	to "Field E	valuation	Manual fo	or Ohio's P	HWH Stre	ams" for Instr	PRINCIPAL ENGINEERING CONTRACTOR OF THE PRINCIPAL CONTRACT
		JANNEL Tions:		NONE/AN/	TEURAL CH	NNEL D	RECOVE		COVERING		NT OR NO REC	DVERY
1.	(Max	STRATE (E of 32). Add	stimate pe	er of signifi	ery type of scant substrate	substrate project types found	d (Max of	3). Final meti	<u>o</u> predomina ric score is su	ım of boxes	ETYPE boxes A & B. ERCENT	HHEI Metric
	B	OULDER (S [16 pts] >256 mm) [16 pts]			\$19794 XXXXXX		oy DEBRIS [3 ntel	3 pts] _	15 5	Points Substrate
	C	47-14-100-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	[10 pt] 5-256 mm) [64 mm) [9 j	90000000000	15 40		CLAY	or HARDPAN [0 pts]		_		Max = 40
		AND (<2 π	nm) [6 pts] ercentages		40		2012 212	CIAL [3 pts]		-	(B) /	21 A+B
SCORE		Slabs, Boul	der, Cobble	, Bedrock_	STRATE TY	PES:	, T(OTAL NUMB	ER OF SUB	STRATE T	6	ATB
2.	evalu	ation. Avoi	d plunge po	ols from roa	ad culverts of	ool depth with	pipes)	(Check ONL)	Y one box):	n reach at t	ne time of	Pool Depth Max = 30
┚	> 22.5	entimeters - 30 cm [-22.5 cm [30 pts]		ersbar.		<5c	n - 10 cm [1: n [5 pts] /ATER OR N	5 pts] MOIST CHAN	NEL [0 pts		25
	сом	MENTS	9",	ζ",	9" 8	<u>} ''</u>		MAXIMUM	POOL DEPT	H (centime	ters):	
	> 4.0 r	neters (> 13			e average of	3-4 measur	9 370	m #1.5 m (>	eck <i>ONLY</i> or 3'3' - 4'8") [pts]	5 pts] 👑		Bankfull Width _Max≃30
<u>ה</u>	> 1,5 n		>9'7"-4'8" ~'			4 6"			BANKFULL '		4.4	15
سياسي	COM	INIEN 13			This	information	must els			THE THE (INC		
			AN ZONE AI IAN WIDTH		PLAIN QUA	LITY ☆I PLAIN QUAL	NOTE: Riv ITY	er Left (L) an	d Right (R) a	-	ownstream ☆	
		J Wide	>10m			(Most Pred Mature For Immature I	rest, Wetla	nd			rvation Tillage	
			rate 5-10m w <5m		00	Field Residentia			00 8 1 8.	/ Open l	or Industrial Pasture, Row	
٠.		None COMME			00	Fenced Pa	sture			Crop Mining	or Construction	<u>.</u>
	S	Stream Fl	lowing ce flow with		aluation) (C	al)	one box):		nnel, isolated el, no water		low (Intermittent))	
		SINUOS None 0.5	I TY (N umbe	er of bends	per 61 m (20 1.0 1.5	0 ft) of chann	nel) (Che	ck <i>ONLY</i> one 2.0 2.5	e box):	3.0 3.3		
(T)			IENT ESTIN		المماد	arata <i>in ei</i> kon e	**	☐ Moderate	to Savoro	!	7 Savara /10 8/1/	ND 41

FLOW College Grassy waterway College Grassy waterway College Grassy waterway Channel Grassy Bld + Bank Corw		
WAYFI Name: Distance from Evaluated Stream MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order County. NRCS Soil Map Page: NRCS Soil Map Stream Order County. Township / City. MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: Quantity. Quantity. Photograph Information: Yell Ye	QHEI PERFORMED? - Yes Yo QHEI Score (If Ye	es, Attach Completed QHEI Form)
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE EMTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order County: NRSCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: Quantity. Photograph Information: Vcc A + Canopy (% open): 20 //. Were samples collected for water chemistry? (Y/N): Note lab sample no. or id. and attach results) Lab Number. Floid Measures: Temp (*C) Dissolved Oxygen (mg/l) pH (\$U.) Conductivity (imhos/cm) Is the sampling reach representative of the stream (Y/N) if not, please explain: A during the condition of pollution impacts: BIOTIC EVALUATION Performed? (Y/N): Voucher? (Y/N) slammanders Observed? (Y/N) Voucher samples must be labeled with D number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Flah Observed? (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 local contents of the completed of the stream's local contents of the complete of the completed of the stream's local contents of the complete of the completed of the stream's local contents of the complete of the completed of the complete of the comp	WWH Name:	Distance from Evaluated Stream
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Photograph Information: Photograph Information:	· · · · · · · · · · · · · · · · · · ·	
Elevated Turbidity? (Y/N): Canopy (% open): 20 /. 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 (umhos/cm) is the sampling reach representative of the stream (Y/N) If not, please explain:	, , , , , , , , , , , , , , , , , , , ,	
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Field Measures: Temp ("C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain: Not would be stream to the stream (Y/N) If not, please explain: Not would be stream to the stream's local to the stream to t	· · · · · · · · · · · · · · · · · · ·	
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled will ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Satamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)	Were samples collected for water chemistry? (Y/N): (Note lab sample no.	or id. and attach results) Lab Number:
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BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled will ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Satamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)	an or grassed waterway - No:	bed/bank, No channel
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include impartant landmarks and other features of interest for site evaluation and a narrative description of the stream's local control of the stream's loca		·
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Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's local cobble formul fond Corn cobble formul fond Corn Grassy water was channel of Bld + Bank Corn Corn Corn Corn Corn	Comments Regarding Biology:	
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's local cobble formul fond Corn cobble formul fond Corn Grassy water was channel of Bld + Bank Corn Corn Corn Corn		
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's local cobble formul fond Corn cobble formul fond Corn Grassy water was channel of Bld + Bank Corn Corn Corn Corn		
FLOW Sound 2 1 1/5ml Corn Cobble / gravel / 5md Corn Grassy waterwa Channel or Bld + Bank Corn		
FLOW No sturam Channel o- Bld + Bank Corn	5: 14/sud Corm	tion and a narrative description of the stream's location Corn blu / gravel / sand Corn
Bed + Bank Corn		The second second
Corm	FLOW	
		Bed + Bank
· •		Corm
Λ	Coca	

STREAM CC Primary Headwater Habitat Evaluation Form

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

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	AME/LOCATIONENP007		2/2
	SITE NUMBER C	CC RIVER BASIN 47 BUCK GOOK DRAINAGE AREA (mi²) LAT. 40.0821 LONG. 83.6267 RIVER CODE RIVER MILE	1.63
DATE !	30 11 SCORER B. FALLIA	NOUR COMMENTS Day narrow stream channel	
NOT	E: Complete All Items On This Form	NBURGOMMENTS Dry narrow strum channel m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
CETE		TURAL CHANNEL . SI RECOVERED D'RECOVERING D'RECENT OR NO RE	ONEDV.
200		invilical	(See 1885) 77 P. N. S.
	e observation for the control of the	The figure of the control of the figure from the control of the co	· Markey actions
1.	(Max of 32). Add total number of significations	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes ant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI Metric
TYPE	PI BLDR SLABS 116 pts1	ERCENT TYPE PERCENT	Points
	BOULDER (>256 mm) [16 pts] /_	2 D LEAF RACK/WOODY DEBRIS [3 pts]	Substrate /
	· · · · · · · · · · · · · · · · · · ·	D D FINE DETRITUS [3 pts]	Max = 40
	GRAVEL (2-64 mm) [9 pts]	24 DD MUCK to pist	1/6
	And the contraction of the engineering of the contraction of the contr	ARTIFICIAL [3 pts]	10
	Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock	271/2 (A) 12	A+B
SCORE	OF TWO MOST PREDOMINATE SUBST	TRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	
2.	Maximum Pool Depth (Measure the ma	aximum pool depth within the 61 meter (200 ft) evaluation reach at the time of disculverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
	> 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]	IIIIAX - 30
	> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	S 5 cm is pts No. Water or Moist Channel io pts	
	COMMENTS	MAXIMUM POOL DEPTH (centimeters):	
_			1 ———
3.	BANK FULL WIDTH (Measured as the a	average of 3-4 measurements) (Check ONLY one box):	Bankfull
³. 	BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13") [30 pts]	average of 3-4 measurements) (Check <i>ONL</i> Y one box):	Width
	BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13) [30 pts] > 3.0 m = 4.0 m (> 9.75 + 13) [25 pts] > 1.5 m = 3.0 m (> 9.77 + 4.89) [20 pts]	☐ \$ 1.0 m = 1.6 m (≥ 3 3 3) 16 pts] \$\forall 1.0 m (≥ 3 3 3) 5 pts]	
	> 4.0 meters (> 13') [30 pts] > 3.0 m = 4.0 m (> 9'7' - 13') [25 pts]	□ \$10 m - 1.5 m (₹ 918" + 47.9") [15 pis] \$ 7.0 m (\$ 81.3") [5 pis]	Width
	> 4.0 meters (\$ 13) [30 pts] > 3.0 m - 4.0 m (\$ 9 7; 13) [25 pts] *** > 1.5 m * 3.0 m (\$ 9 7; 4, 6) [20 pts]	2.5	Width
	> 4.0 meters (* 13) [30 pts] > 3.0 m - 4.0 m (* 9'.7" - 13) [25 pts] > 1.5 m * 3.0 m (* 9'.7" - 4'.8") [20 pts] COMMENTS	AVERAGE BANKFULL WIDTH (meters) This information must also be completed	Width
	> 4.0 meters (* 13) [30 pts] > 3.0 m	AVERAGE BANKFULL WIDTH (meters) AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY TO ME S 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Width
	> 4.0 meters (\$ 13) [30 pts] > 3.0 m	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstreams	Width
	2 4.0 meters (\$ 13) [30 pts] 3.0 m	AVERAGE BANKFULL WIDTH (meters) LAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Mature Forest, Shrub or Old Librar or Industrial	Width
	2 4.0 meters (2 13) [30 pts] 2 5.0 m	This information must also be completed AVERAGE BANKFULL WIDTH (meters) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Mature Forest, Shrub or Old Field Residential, Park, New Field Open Pasture, Row	Width
	2 4.0 meters (\$ 13) [30 pts] 2 5.0 m	AVERAGE BANKFULL WIDTH (meters)	Width Max=30
	2 4.0 meters (\$ 13) [30 pts] 3.0 m	AVERAGE BANKFULL WIDTH (meters)	Width Max=30
	2 4.0 meters (* 13) (30 pts] 3.0 m	AVERAGE BANKFULL WIDTH (meters)	Width Max=30
	A 4.0 meters (\$ 13) [30 pts] 3.0 m	AVERAGE BANKFULL WIDTH (meters)	Width Max=30
	A 40 meters (\$ 13) [30 pts] 3.0 m	This information must also be completed PLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream PLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Mature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture Mining or Construction Water Forest (C) Moist Channel, Isolated pools, no flow (Intermittents) S (Interstitial) Dry channel, no water (Ephemeral)	Width Max=30
	A 4.0 meters (* 13*) [30 pts] 3.0 m 4.0 m (* 9*7* 4.8*) [20 pts] 1.5 m 3.0 m (* 9*7* 4.8*) [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPI RIPARIAN WIDTH L'R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS: FLOW REGIME (At Time of Evaluation Stream Flowing) Subsurface flow with isolated pools COMMENTS. SINUOSITY (Number of bends per None)	AVERAGE BANKFULL WIDTH (meters)	Width Max=30
	A 4.0 meters (\$ 13) [30 pts] 3.0 m	This information must also be completed PLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream PLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Method Information Tilliage Immature Forest, Shrub or Old Residential, Park, New Field Residential, Park, New Field Mining or Construction Water Forest (C) Moist Channel, Isolated pools, no flow (Intermittent of the control of the contro	Width Max=30
	A 4.0 meters (* 13*) [30 pts] 3.0 m 4.0 m (* 9*7* 4.8*) [20 pts] 1.5 m 3.0 m (* 9*7* 4.8*) [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPI RIPARIAN WIDTH L'R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS: FLOW REGIME (At Time of Evaluation Stream Flowing) Subsurface flow with isolated pools COMMENTS. SINUOSITY (Number of bends per None)	AVERAGE BANKFULL WIDTH (meters)	Width Max=30

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Stream DD

Primary Headwater Habitat Evaluation Form

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

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R	/_	
¥	_	-

SITE NAME/LOCATION EVPOOT Stream DD SITE NUMBER Str. DD RIVER BASIN L. HIC DANSY DRAINAGE AREA (mi²) D.	068
LENGTH OF STREAM REACH (#) 200 LAT. 40.0 885 LONG. 83.5876 RIVER CODE RIVER MILE DATE 6/30/11 SCORER 13MF COMMENTS WT to Little Darly Creek	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL DINONE / NATURAL CHANNEL DI RECOVERED DIRECOVERING DIRECENTION NO RECO	VERY
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI Metric
TYPE PERCENT TYPE PERCENT OF SILT IS PT PERCENT PERCEN	Points
D BEDROCK 18 pt D FINE DETRITUS 13 pts D S S S S S S S S S	Substrate Max = 40
O GRAVEL (2-54-mm) (9-pts) 10 MUCK (0-pts) 5 O ARTIFICIAL (3-pts)	17
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock 25 / (A) 12	A+B
GOOKE OF TWO MOST PREDOMINATE SUBSTRATE TIPES.	
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 	Pool Depth Max = 30
□ >30 centimeters [20 pts] □ > 5 cm + 10 cm [15 pts] □ > 22.5 = 30 cm [30 pts] □ < 5 cm 5 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters):	5.05.50.00.00.00
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): ☐ \$4.0 meters (≥ 15) [30 pts] ☐ \$1.0 m = 1.5 m (≥ 3 3 3 4 8) [15 pts] ☐ \$3.0 m = 4.0 m (≥ 9 7 1 3) [25 pts]	Bankfull Width Max=30
COMMENTSAVERAGE BANKFULL WIDTH (meters)	3
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	· · · · · · · · · · · · · · · · · · ·
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	
☐	
□□ Narrow<5m □□ Residential, Park, New Field □□ Open Pasture, Row Crop	
None	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None	
STREAM GRADIENT ESTIMATE Flat (0.5 14/100 ft)	ft)

ADDITIONAL STREAM INFO	RMATION (This Informa	tion Must Also be Con	npleted):		
QHEI PERFORMED	?-□Yes Ø-No QH	El Score(If Yes, Attach Completed	QHEI Form)	
DOWNSTREAM DE	SIGNATED USE(S)		mt-t	m Diaborted Stee	
☐ WWH Name:	le BARRY	CRECK		m Evaluated Strear n Evaluated Strean	700
☑ EWH Name:			Distance from	n Evaluated Strean	ı
		· · · · · · · · · · · · · · · · · · ·	TERSHED AREA. CLEAR		
USGS Quadrangle Name: N	1echanics bu	NRCS	Soil Map Page: 51	NRCS Soll Map Str	eam Order
USGS Quadrangle Name: Na	gr-	Township / Cit	y: Union	mechanic	sbug
MISCELLANEOUS	Dry		, , , , , , , , , , , , , , , , , , ,		U
Base Flow Conditions? (Y/N):_	Date of last pre	ecipitation: > 3	Quantity:		
Photograph Information:	1 yes				• :
Elevated Turbidity? (Y/N):	Canopy (% o	pen): 25			•
Were samples collected for wa	•		no. or id. and attach resul	ts) Lab Number:	<u> </u>
		•	H (S.U.)Condu		
Is the sampling reach represen		_	,	•	
· ·	tage of the stream (The	, <u> </u>	/		•
A 1 110 1		Dry			•
Additional comments/description	n or pollution impacts:		1,000	•	·
Fish Observed? (Y/N) Frogs or Tadpoles Observed? Commenits: Regarding Biology:	Voucher? (Y/N) S (Y/N) Voucher? (Y/N) Voucher. (Y/N)	opriate field data sheets f Salamanders Observed?	ons optional. NOTE: all vou from the Primary Headwater (Y/N) Voucher? (invertebrates Observed? (Y/N) Vouche	t Manual)
include important lands			REAM REACH (Thi	escription of the s	
VT.	· · ·	, 1	old field	0F	1
	(_	OF !	B.g cottonword		
_4			Co by le		===5
FLOW -	Tree	Total			
			Roots		, land
	· 1 · · · · · · · · · · · · · · · · · ·	wss/	_		. —
	hardpan &	Su: tchgress	bict	Defined Ehranel	CRP (SE
	5111	S CL	• •	Ehrnnel !	Switch (
	5md	Cranp	ntl		grad (

STREAM E

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



SITE NAME/LOCATION EVPOOT - UT EAST FOR BUCK CALL	
SITE NUMBER EE RIVER BASIN DRAINAGE AREA (mi²) O.	3/
LENGTH OF STREAM REACH (ff) 200 LAT. 40.0656 LONG. 83.6156 RIVER CODE RIVER MILE	<u></u>
LENGTH OF STREAM REACH (ft) 200 LAT. 40.0656 LONG. 83.6156 RIVER CODE RIVER MILE DATE 6/30/11 SCORER B.M. FALLINBUSSMMENTS Dry Chancel, phalanis dominated, 5:14 1 gr	ravel
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ctions
STREAM CHANNEL	
MODIFICATIONS: Channel red A DITCL	
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
	Metric Points
O BOULDER (2266 mm) (16 pis) DEBRIS IS pis)	Cubatrata
	Substrate Max = 40
COBBLE (65-256 mm) [12 pts] CLAY of HARDPAN [0 pt] MUCK [0 pts] ZS MUCK [0 pts]	14/
ARTIFICIAL [3 pts]	. 7
Total of Percentages of (A) (B)	A+B
Bldr Slabs, Boulder, Cobble, Bedrock	ATD
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	
	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
□ > 30 centimeters [20 pts] □ > 5 cm 10 cm 15 pts] □ > 22.5 30 cm 30 pts] □ > 5 cm 5 pts] □ > 10 22.5 cm 25 pts] ■ NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS DV2V MAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
34.0 meters (> 13°) [30 pts]	Width Max≃30
Care the first of the first of the first the first of the	
	7
COMMENTS AVERAGE BANKFULL WIDTH (meters)	20
COMMENTSAVERAGE BANKFULL WIDTH (meters)	20
COMMENTSAVERAGE BANKFULL WIDTH (meters) This information must also be completed	20
AVERAGE BANKFULL WIDTH (meters) This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$NOTE: River Left (L) and Right (R) as looking downstream会	20
AVERAGE BANKFULL WIDTH (meters) This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$NOTE: River Left (L) and Right (R) as looking downstream会 RIPARIAN WIDTH FLOODPLAIN QUALITY	20
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	20
AVERAGE BANKFULL WIDTH (meters) This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$NOTE: River Left (L) and Right (R) as looking downstream会 RIPARIAN WIDTH FLOODPLAIN QUALITY	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH RIPARIAN WIDTH L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Mature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Moderate 5-10m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L'R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m Norrow <5m Norrow <5m Residential, Park, New Field Residential, Park, New Field Flow Regime (At Time of Evaluation) Stream Flowing Wolf Prodominant per Bank) Residential, Park, New Field Moderate 5-10m Residential, Park, New Field Moderate 5-10m Moderat	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$NOTE: River Left (L) and Right (R) as looking downstream\$ RIPARIAN WIDTH FLOODPLAIN QUALITY L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Conservation Tillage Immature Forest, Shrub or Old Conservation Tillage Immature Field Conservation Tillage Immature Forest, Shrub or Old Mining or Construction Field Copen Pasture, Row Crop None Residential, Park, New Field Copen Pasture, Row Crop None Stream Flowing Mining or Construction Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, Isolated pools, no flow (Intermittent) Comments SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 3.0 2.5 3.0	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L'R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed):
QHEI PERFORMED? - Yes Yo QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: E. For E. Buck. Creek: Distance from Evaluated Stream
Distance from Evaluated Stream
Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Mechanics buy NRCS Soil Map Page: 60 NRCS Soil Map Stream Order 3rd County: Champaign Township / City: Union / mechanics buy
County: Champaign Township/City: Union/Michanicsburg
MISCELLANEOUS Dry 730rHdays 7
Base Flow Conditions? (Y/N): Date of last precipitation: Quantity:
Photograph Information: Y
Elevated Turbidity? (Y/N): Canopy (% open): / O
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?
<u> </u>
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 Proposed Landown Corn Proposed Substation Proposed Substation
mounted lescue 118'
FLOW Phalanis on silt + granel defined bed + Benk
monel Cercue 118'
North Corn likely no crossing

ephemeral, isolated Mod class III

Primary Headwater Habitat Evaluation Form

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

SITE NAME/LOCATION EVER POWER			
SITE NUMBER_S		DRAINAGE AREA (mi²)	
LENGTH OF STREAM REACH (ft) 200	LAT LONG	RIVER CODE RIVER MILE _	·
DATE 10/10/11 SCORER B. FALK	MENTS DRY - I	SOLATED - No RECEIVE	ing Street
NOTE: Complete All Items On This Form			
STREAM CHANNEL IN IN NONE / NAT MODIFICATIONS: Past Chall	URAL CHANNEL M RECOVERED	I recovering I recention no rec Luc	OVERY
SUBSTRATE (Estimate percent of eve	ry type of substrate present. Check OA	LY two predominant substrate TYPE boxes	[e.
(Max of 32). Add total number of significa	ant substrate types found (Max of 8). Fina ERGENT TYPE	Il metric score is sum of boxes A & B. PERCENT	HHEI Metric
BLDR SLABS [16 pis]	SILT (3 pt)	-40	Points
☐ ☐ BOULDER (>256 mm) [16 pts]	OO FINE DETRIT	VOODY DEBRIS 13 pts]	Substrate
OBBLE (65-256 mm) [12 pts]	40 🗆 🗗 🔀 CLAY OF HAR	DPAN [0 pt] /O	Max = 40
☐ 3 GRAVEL (2-64 mm) [9 pts] ☐ ☐ SAND (<2 mm) [6 pts]	/ D MUCK 10 pts		25
Comments of the Control of the Contr	ARTHRUMLI	3 pts	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	40 (A) 21	(B) <u>//</u>	A+B
SCORE OF TWO MOST PREDOMINATE SUBST	RATE TYPES: TOTAL N	IUMBER OF SUBSTRATE TYPES:	
2. Maximum Pool Depth (Measure the ma	ximum pool depth within the 61 meter	(200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road	culverts or storm water pipes) (Check		Max = 30
≥ 30 centilmeters [20 pis] ≥ 22.5 ≥ 30 cm [30 pis] ≥ 10.+ 22.5 cm [25 pis]	☐ <5 cm 5 pt		
☐ > 10 + 22.5 cm [25 pts]	NO WATER	OR MOIST CHANNEL [0 pts]	
COMMENTS DRY	MAXIII	NUM POOL DEPTH (centimeters):	par de la companya de
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> (3) (30 pts) > 3.0 m - 4.0 m (> 9.7" - (3) (25 pts) > 1.5 m - 3.0 m (> 9.7" - 4.6") [20 pts]	☐	(Check <i>ONLY</i> one box): m (s 3 3" - 4' 8") (15 pts) 3") [6 pts]	Bankfull Width Max=30
COMMENTS 5.5'	AVER/	AGE BANKFULL WIDTH (meters)	20
RIPARIAN ZONE AND FLOODPI RIPARIAN WIDTH	This information <u>must</u> also be co AIN QUALITY ☆NOTE: River Left (<u>FLOODPLAIN QUALITY</u>	mpleted L) and Right (R) as looking downstream☆	•
L`R (Per Bank) Wide >10m	L R (Most Predominant per Bank Mature Forest, Wetland		
Moderate 5-10m	Immature Forest, Shrub or C		
	Field	Onen Parture Pour	
Ø ∅ Narrow <5m	Residential, Park, New Field	Crop	
O O None COMMENT'S	☐ ☐ Fenced Pasture	Mining or Construction	
FLOW REGIME (At Time of Evalu Stream Flowing Subsurface flow with isolated pools COMMENTS	Molst	: Channel, isolated pools, no flow (Intermittent) nannel, no water (Ephemeral)	•
SINUOSITY (Number of bends per	r 61 m (200 ft) of channel) (Check ONL	Y one box):	
None 0	1.0	☐ 3.0 ☐ >3	
_ 30 _	1.0 🚅 2.0	<u> </u>	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft)	erate to Severe	

QHEI PERFORMED? - Yes No QHEI Score (If Y	es, Attach Completed QHEI Form)	3
DOWNSTREAM DESIGNATED USE(S)		
☐ WWH Name:		
D EWH Name:		
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATE		-
JSGS Quadrangle Name: NRCS So	il Map Page: NRCS Soil Map Stream Order	
County: CHAMPAIGN Township/City:		:
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Date of last precipitation:	Quantity:	
Photograph Information:		
Elevated Turbidity? (Y/N): N Canopy (% open): 60	,	
Nere 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 the sampling reach representative of the stream (Y/N) / If not, please expl	ain:	
		
Additional comments/description of pollution impacts:	·	
		_
BIOTIC EVALUATION	•	
erformed? (Y/N): / (If Yes, Record all observations. Voucher collections	and the state of t	
	optional. NOTE: all voucher samples must be labeled with the the Primary Headwater Habitat Assessment Manual)	site
ID number. Include appropriate field data sheets from	n the Primary Headwater Habitat Assessment Manual)	site
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinve	n the Primary Headwater Habitat Assessment Manual) (/N) Voucher? (Y/N) ertebrates Observed? (Y/N) Voucher? (Y/N)	site
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Salamanders Observed? (Y/N)	n the Primary Headwater Habitat Assessment Manual) (/N) Voucher? (Y/N) ertebrates Observed? (Y/N) Voucher? (Y/N)	site
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinve	n the Primary Headwater Habitat Assessment Manual) (/N) Voucher? (Y/N) ertebrates Observed? (Y/N) Voucher? (Y/N)	site
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinve	n the Primary Headwater Habitat Assessment Manual) (/N) Voucher? (Y/N) ertebrates Observed? (Y/N) Voucher? (Y/N)	
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinve comments Regarding Biology: No WATER	n the Primary Headwater Habitat Assessment Manual) (/N) Voucher? (Y/N) ertebrates Observed? (Y/N) Voucher? (Y/N)	
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ID number. Include appropriate field data sheets from ish Observed? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinve comments Regarding Biology: No WATER	The Primary Headwater Habitat Assessment Manual) (IN) Voucher? (Y/N) ertebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This <u>must</u> be completed): ation and a narrative description of the stream's location	site
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinversemments Regarding Biology: No WATER DRAWING AND NARRATIVE DESCRIPTION OF STREE Include important landmarks and other features of Interest for site evaluation.	EAM REACH (This must be completed): ation and a narrative description of the stream's location	site
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinve comments Regarding Biology: No WATER	EAM REACH (This must be completed): ation and a narrative description of the stream's location	site
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinversemments Regarding Biology: No WATER DRAWING AND NARRATIVE DESCRIPTION OF STREE Include important landmarks and other features of Interest for site evaluation.	The Primary Headwater Habitat Assessment Manual) (IN) Voucher? (Y/N) ertebrates Observed? (Y/N) Voucher? (Y/N) EAM REACH (This <u>must</u> be completed): ation and a narrative description of the stream's location	in the same of the
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinversomments Regarding Biology: No WATER	EAM REACH (This must be completed): ation and a narrative description of the stream's location	in a site
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ID number. Include appropriate field data sheets from ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinversements Regarding Biology: No WATER OR ATTER OF THE Include important landmarks and other features of Interest for site evaluation.	EAM REACH (This must be completed): ation and a narrative description of the stream's location	in site in the san is a road w
ID number. Include appropriate field data sheets from ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Yrogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinversements Regarding Biology: No WATER DRAWING AND NARRATIVE DESCRIPTION OF STREE Include important landmarks and other features of interest for site evaluations.	EAM REACH (This must be completed): attor and a narrative description of the stream's location Supplies the primary Headwater Habitat Assessment Manual) White Primary Habitat Assessment Manual White Primary Habitat Manual White Primary Habitat Manual White Primary Habitat	interpretation of the sound on the Local Contraction of the Local Contr

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Mod class I

STREAM HH

Primary Headwater Habitat Evaluation Form Inhewera 9 HHEI Score (sum of metrics 1, 2, 3):

	Ephen				1824	المستحدث
SITE NAME/LOCA	TION EVER POWER				- 0	25
					_ DRAINAGE AREA (mi²) <u>Ø</u>	, 23
	EAM REACH (ft) 200					
, , , , , , , , , , , , , , , , , , ,	SCORER BMF		•			
-	ete All Items On This Forn					
A 14 STRONG BEEN SELECTED.	NEL	150 6 44 F 67 To 15 TO 1	B. C. C. St. T. C.	4. 医性性性结束性 (1) 15 (1) 15 (1)		F14 - CM M 4
1. SUBSTR	ATE (Estimate percent of ever	y type of subst	rate present. Check	ONLY two predomin	ant substrate <i>TYPE</i> boxes	I
=	2). Add total number of significa			Final metric score is		HHEI Metric
TYPE BLÖR	SLABS [16 pts]		TYPE SILT [3 pt	li da lah damani	PERCENT 85	Points
OO BOUL	DER (>256 mm) [16 pts]		LILI LEAF PAC	KWOODY DEBRIS	[3 pts]	Substrat
D BEDR	OCK [16 pt] LE (65-256 mm) [12 pts]/			RITUS (3 pts) IARDPAN (0 pt)	Flat de finisher	Max = 40
	EL (2-64 mm) [9 pts]			pisi	1. S. F.	
	(<2 mm) [6 pts]		☐ ARTIFICIA	L [3 pts]		1/
		· / (A)	-	an armining	(B)	A + P
Bldr Slabs	, Boulder, Cobble, Bedrock	15/ "	15		2	A+B
SCORE OF TWO	NOST PREDOMINATE SUBȘT	RATE TYPES:	TOTA	L NUMBER OF SUI	BSTRATE TYPES:	<u> </u>
	Pool Depth (Measure the ma					Pool Dept
evaluation	. Avoid plunge pools from road	culverts or storr	n water pipes) (Ch	eck ONLY one box):	erikale eta errora. Berena eta errora eta errora eta errora eta errora.	Max = 30
22.5 - 3	ieters [20 pts] cm [30 pts] cm [25 pts]			pts]	1	10
□ > 10/±22.	cm [25 pts]	Editor of Artist Co.	MO WAT	ER OR MOIST CHA	NNEL [0 pts]	
COMMEN	TS		MA	XIMUM POOL DEP	TH (centimeters):	
3. BANK FÜ	LL WIDTH (Measured as the a	verage of 3-4 n	neasurements)	(Check ONLY	one box):	Bankfull
> 4.0 meter	s (> 13') [30 pts] 0 m (> 9' 7" - 13') [25 pts]		2 > 1.0 m =	1.5 m (> 3' 3" - 4' 8")	[15 pts]	Width
3.0 m = 4	n marks of 7" - At 9" 190 ntel	A 100 CO	**************************************	ś 3' 3") [5 pts]		Max=30
, and the first	24	ii			feet 2	15
COMMEN	TS		AV	ERAGE BANKFULL	. WIDTH (meters)	
1111		The Indian				
 RI	PARIAN ZONE AND FLOODPI		mation <u>must</u> also be ☆ NOTE: River L		as looking downstream☆	
F	IPARIAN WIDTH	FLOODPLAIN	I QUALITY			
	(Per Bank) Wide >10m		ost Predominant per E ture Forest, Wetland	Bank) L R		
27 43	Moderate 5-10m		nature Forest, Shrub		-	
•	Mondiale 0-1011	Fier			Onen Besture Ben	
	Narrow <5m		sidential, Park, New F		Crop	
	None MMENTS	Ø ₩ Fen	nced Pasture		J Mining or Construction	
						-
~	OW REGIME (At Time of Evalue am Flowing	ation) (Check		alet Channal Inclata	d pools, no flow (Intermittent)	
	surface flow with isolated pools	(Interstitial)		ry channel, no water		
·CC	MMENTS					-
		- c4 (000 f) -			•	
SII	IUOSITY (Number of bends pe	1 61 111 (200 16) 0	f channel) <u>(C</u> heck C	DNLY one box):	_	
☑ Nor	ie 🔲 .	1.0	2.0		3.0	
_	-				3.0 3.0	

ADDITIONAL STREAM INFORMATION (This Information Must Also be	Completed): STREAM HH
QHEI PERFORMED? - Tyes To QHEI Score	(If Yes, Attach Completed QHEI Form)
_ DOWNSTREAM DESIGNATED USE(S)	
□ WWH Name:	Distance from Evaluated Stream
EWH Name:	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE	
A NAME OF THE PARTY OF THE PART	
USGS Quadrangle Name: NR	· · · · · · · · · · · · · · · · · · ·
County: CHAMPAIGN Township	/ City:
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation:	Quantity:
Photograph Information: \\ \begin{align*} \sum_{\begin{subarray}{c} \sum_\begin{subarray}{c} \sum_{\begin{subarray}{c} \sum_{\begin{subarray}{c} \sum_{\begin{subarray}{c} \sum_\begin{subarray}{c} \sum_\begin{subarray}{c} \sum_\begin{subarray}{c} \sum_\begin{subarray}{c} \sum_\begin{subarray}{c} \sum_\begin{subarray}{c} \sum_\beg	
Elevated Turbidity? (Y/N): V Canopy (% open): 100	· · · · · · · · · · · · · · · · · · ·
Were samples collected for water chemistry? (Y/N): (Note lab sam	- nnje no. or id, and attach results) I ah Number
, · ·	
Is the sampling reach representative of the stream (Y/N) If not, please	se explain:
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher college in the performance of the performa	ections optional. NOTE: all voucher samples must be labeled with the site ets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Ma	ved? (Y/N) Voucher? (Y/N) voucher? (Y/N) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF	
Include important landmarks and other features of interest for site	evaluation and a narrative description of the stream's location
the second second	Creek (DRY
LOW -	STREAM)
JD TO	
-eau (1)	
15-72 X	'

Ephemeral

Modelass I STREAM II

Primary Headwater Habitat Evaluation Form

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

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c	/ /
9	'/-
п	/_3
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SITE NAME/LOCATION EVER POWER	
SITE NUMBER STRIF RIVER BASIN DRAINAGE AREA (mi²) 0.0 LENGTH QF STREAM REACH (ft) 200 LAT. 40.09861 LONG. 83.63875 RIVER CODE RIVER MILE	<u>7_</u>
DATE 10 10 11 SCORER BMF - HULL COMMENTS DRY	_
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructi	ons
STREAM CHÁNNEL DINONE / NATURAL CHANNEL DI RECOVERED DI RECOVERING DI RECENTIOR NO RECOVER MODIFICATIONS:	W Section 1
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	IHEI
TYPE PERCENT TYPE PERCENT M	etric oints
BOULDER (>256 mm) [16 pts] 7/ DD LEAF PACK/WOODY DEBRIS [3 pts]	bstrate
I I I I BENROCK 176 DE LE LE PINE DE IRTOS 13 DIST.	ax = 40
GRAVEL (2-64 mm) [9 pts] 7 0 0 MUCK [6 pts]	0
Table of December of 7 1/ (A) positions	+ B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	·
	ol Depth ex = 30
☐ > 30 centimeters [20 pts] ☐ ≥ 5 cm - 10 cm [15 pts] ☐ ≥ 22.5 . 30 cm [30 pts] ☐ ≤ 6 cm [5 pts]	
NO WATER OR MOIST CHANNEL [0 pts]	2
COMMENTSMAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Ba	nkfull /idth
	=30
COMMENTS 3.5 AVERAGE BANKFULL WIDTH (meters)	5
AVERAGE BARRPOLL WIDTH (meters)	
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L'R (Per Bank) LR (Most Predominant per Bank) LR	
☐ ☐ Wide >10m ☐ ☐ Mature Forest, Wetland # ● Conservation Tillage	
☐	
Moderate 5-10m Immature Forest, Shrub or Old Field Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	
☐ Moderate 5-10m	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial Urban or Industrial Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS Check ONLY one box):	
Moderate 5-10m Immature Forest, Shrub or Old Field Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS	
Moderate 5-10m	
Moderate 5-10m	
Moderate 5-10m	

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed): 5 TREAM III
QHEI PERFORMED? - Yes Yo No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
☐ WWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
☐ CWH Name: BUCK CFEER - DRY 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: NRCS Soil Map Page: NRCS Soil Map Stream Order
County: CHAM PAIGN Township / City:
MISCELLANEOUS
Base Flow Conditions? (Y/N): Date of last precipitation: Quantity:
Photograph Information:
Elevated Turbidity? (Y/N): 1 Canopy (% open): 50
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Fleid 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: PY
Additional comments/description of pollution Impacts: Broken G/ass / fractor tires
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N)
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology: DYLY
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
16 proposed interconnect
FLOW T
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Mod WWH

STREAM JJ

	ChieEFA		e Habitat Eva Assessment	luation Index Field Sheet	QHEI Score	: 36.5	
	Stream & Location: W	T BUCK CR	EE K			10110111	
	River Code:	STORET #:			: FALKINBURG 14183.63819	Office verified	,
	11 SUBSTRATE Check ONL)		XES		E (Or 2 & average)	location	1
	BEST TYPES POOL	RIFFLE OTHER TY	PES POOL RIFFLE	ORIGIN	QUAL		
			S (3)	LIMESTONE IN THE	SILT MODERA	TE[1] Substrati	e
			開闢 / 25	☐ WETLANDS [0] = ☐ HARDPAN [0] = ☐	LI NORMAL		
	OO SAND (6)	/	atural substrates; ignore	☐SANDSTONE [0] :	DDEO MODERA	VE [2] Maximum	1
	NUMBER OF BEST TYPES			□ LACUSTURINE [D] DI □ SHALE [] DI	DDEON DEXTENSION NORMALE NORMA	[O] 20	
	8+7+2+	1+,-1-	-16				
	2] INSTREAM COVER indic quality; 3-Highest quality in mode	itv: 2-Moderate amounts.	but not of highest quali	ounts or if more common of ty or in small amounts of i	linhest		
	diameter log that is stable, well de	eveloped rootwad in deep	/ fast water, or deep, w	s in deep or last water, lar /ell-defined, functional poo XBOWS-BACKWATERS	ols. DEXTENSIVE	75% [11]	
	OVERHANGING VEGETATIONS (IN SLOW W	ION (1) ROOTV	VADS ET EL AC	DUATIC MACROPHYTES DGS OR WOODY DEBRI	HI TISPARSE 5	5% [3]	
	ROOTMATS (IT			, yaanan you inebul	M. W. C.	Cover	
	Comments	1+1		THE STATE OF THE S	· . N	laximum 20	18
;	3] <i>CHANNEL MORPHOLOG</i> SINUOSITY DEVELOR		ategory (Or 2 & averag	e) STABILITY			•
	HIGHIAIR DEXCELL	ENTITI U NONE [6]		D HIGH (3)			
[LOW EF ARE	RECOVER	ING [3]	Ma Moderate (2) □ Leow [1]			
	Omments		PRNOREGOVERY[1]	,		Channel /,5	29.5
-	らせる I] BANK EROSION AND R	PARIAN ZONE Che	ck ONE in each category	or for EACH BANKIOs 2 p	or bank 9 guerrage)	20	21.5
	River right looking downstream	RIPARIAN WIDTH	I R FLOO	D PLAIN QUALITY	L R		
. Ę		WIDE>50m[4] Moderate:10:50m[3]		ILD FIELD 121	☐ CONSERVATION ☐ ☐ URBANIOR INDL	STRIALION	
	HEAVY/SEVERE IT A 1		□ □ FENCED PAS	PARKUNEW FIELD (1) I	Indicate predominant lan		
(니니 Comments ,	NONETOTAL	B OPENPAST	REPROVEROR 101	past 100m riparian. 🛮 🦰	Iparian 3	>
_	+ + POOL/GLIDE AND RIFF	- O	,			. 10	52,5
J	MAXIMUM DEPTH	CHANNEL WIDTH	CURR	ENT VELOCITY	Recreation F	- 11	
		heck ONE (<i>Or</i> 2 & averag I⊑WIDTH ≥ RIEELEWIDT	HIZI UTORRENTIA	ck ALL that apply [[5] □SLOW[[5]]	Primary C Secondary	- 11	
		EWIDTHS RIFFLEWIDT EWIDTH≲RIFFLEWIDT	HIO DEASTINE	ME UNTERSTITAL UNTERMITIENT	(circle one and comm	nent on back)	
_	□ 0.250 4m [1] □ ≤ 0.2m [0]	. 1	□ MODERATE Indicate for	reach - pools and riffles.	C C	Pool / Current	32.5
C	comments DR					ximum 12	J 2. 3
	Indicate for functional r of riffle-obligate species	s: Ch	eck ONE (Or 2 & averag	ge).	pulation ☐NO RIF	FLE [metric=0]	
	BESTAREAS 230cm [2] [] MA	XIMUM 3 50cm [2] S	RIFFLE / RUN SUE	Boulder/(121	RUN EMBEDDED	NESS	
	BESTAREAS \$10cm [1] LIMA	XIMUM ≤ 50cm [1] □ N	IOD STABLE (e.g., La NSTABLE (e.g., Fine G	rge Gravell [1]		Riffle /	32.5
c	BESTAREAS SECTION OF THE PROPERTY OF THE PROPE	RY	neradonen oktaikesi (202	rational designation of the second	EXTENSIVE ET	Run O	_
						8	

06/16/06

Gradient Maximum 10

%GLIDE:

)%RIFFLE:(

%POOL:

ClassII

Ephemeral

STRE

Primary Headwater Habitat Evaluation Form

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

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SITE NAME/LOCATION EVER POWE	ER UT to Dugan Kun	
SITE NUMBER S	TR-LL RIVER BASIN DRAINAGE AREA (mi²)	
	LAT. LONG. RIVER CODE RIVER MILE	
DATE /D/12/11 SCORER B.FALK	/NBVEGOMMENTS	
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohlo's PHWH Streams" for Inst	uctions
STREAMICHANNEL S. SUNONEANAT	TURAPGHANNEL BREETOVERED MEREGOVERING WARE EN MORRE	VERY
	* - The case of 8550 KM To Call Wille	

	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes and substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PE	ERCENT TYPE PERCENT	Metric Points
☐ ☐ BLDR SLABS [16 pts]	SILT [3 pf] 2-0 CEAF PACKWOODY DEBRIS [3 pts] 7-0	FUIILS
☐ ☐ BEDROCK [16 pt]	O O FINE DETRITUS, 13 pts	Substrate Max = 40
COBBLE (65-256 mm) [12 pts] / GRAVEL (2-64 mm) [9 pts] /	20 GLAY OF HARDPAN [0:pt] 40 10 MUCK 20:pts]	
SAND (<2 mm) [6 pts]	OO ARTIFICIALIS BIS	7
	(A) (B)	A+B
Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBST	$\frac{20}{3}$	A . D
Maximum Pool Depth (Measure the ma evaluation, Avoid plunge pools from road	aximum pool depth within the 61 meter (200 ft) evaluation reach at the time of d culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
☐ >30 centimeters [20 pts]	> 5 cm = 10 cm [15 pts]	
> 522.5 30 cm [30 pts] > 10 > 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL 10 pts	
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	Ser Constitution
		D. 1-5-0
3. BANK FULL WIDTH (Measured as the a	💋 5310 m .71.5 m (> 3°3", 4°8") [15 pts] /	Bankfull Width
	2 370 m 715 m (53°3° 48°1) [15 pts] □ (≤10 m (53°3°) [5 pts]	
- 4.0 meters (* 13') [30 pts] - 3.0 m - 4.0 m (> 9'7" [3') [25 pts] - 5.5 m - 3.0 m (> 9'7" 4'8') [20 pts]	30 m 7(5 m (>3°3°; 4'8")[15 pis] □ (≥1,0 m (≤3°3")[5 pis]	Width
	2 370 m 715 m (53°3° 48°1) [15 pts] □ (≤10 m (53°3°) [5 pts]	Width
- 4.0 meters (* 33) [30 pts] - 3.0 m - 4.0 m (> 9 7" [33) [25 pts] - 3.0 m - 3.0 m (> 9 7" 4.8") [20 pts] - COMMENTS 3	AVERAGE BANKFULL WIDTH (meters) This information must also be completed	Width
	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	Width
	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY \$\triangle \text{This River Left (L) and Right (R) as looking downstream \$\frac{\text{FLOODPLAIN QUALITY}}{\text{L R}} \text{UR (Most Predominant per Bank)} \text{L R}	Width
	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY THIS MOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage	Width
- 4.0 meters (* 13*) [30 pts] - 3.0 m - 4.0 m (* 9.7* 13*) [25 pts] - 1.5 m - 3.0 m (* 9.7* 4.8*) [20 pts] - 1.5 m - 3.0 m (* 9.7* 4.8*) [20 pts] - 1.5 m - 3.0 m (* 9.7* 4.8*) [20 pts] - 1.5 m - 3.0 m (* 9.7* 4.8*) [20 pts] - 1.5 m - 3.0 m (* 9.7* 4.8*) [20 pts] - 1.5 m - 3.0 m (* 9.7* 4.8*) [20 pts] - 1.5 m - 3.0 m - 1.5 m - 1.5 m - 3.0 m - 1.5	This information must also be completed PLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Welland Immature Forest, Welland Immature Forest, Shrub or Old Field Conservation Tillage	Width
	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY \$\times \text{NOTE: River Left (L) and Right (R) as looking downstream\$\text{Y}} FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Immature Forest, Wetland Copen Pasture, Row Crop	Width
	This information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential Park New Field AVERAGE BANKFULL WIDTH (meters) AVERAGE BANKFULL WIDTH (meters) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Urban or Industrial Open Pasture, Row	Width
	This information must also be completed PLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Residential, Park, New Field Residential, Park, New Field Fenced Pasture Mining or Construction	Width
	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY \$\times \text{NOTE}\$: River Left (L) and Right (R) as looking downstream\$\times \frac{\text{FLOODPLAIN QUALITY}}{\text{L} \text{R} \text{ (Most Predominant per Bank)} \qua	Width Max=30
	AVERAGE BANKFULL WIDTH (meters) This information must also be completed PLAIN QUALITY \$\times \text{NOTE}\$: River Left (L) and Right (R) as looking downstream\$\times \frac{\text{FLOODPLAIN QUALITY}}{\text{L} \text{R} \text{ (Most Predominant per Bank)} \qua	Width Max=30
-4.0 meters (> 13') [30 pts] -3.0 m -4.0 m (> 9.7" (3') [25 pts] -3.0 m -4.0 m (> 9.7" (3') [25 pts] -3.0 m -3.0 m (> 9.7" 4.8") [20 pts] -3.0 m -3.0	This information must also be completed PLAIN QUALITY	Width Max=30
-4.0 meters (> 13') [30 pts] -3.0 m -4.0 m (> 9.7" (3') [25 pts] -3.0 m -4.0 m (> 9.7" (4') [20 pts] -3.0 m (3') [25 pts] -3.0 m (3') [25 pts] -3.0 m (3') [20 pts] -3.0 m -3.0	This information must also be completed PLAIN QUALITY \$\pm\notation \text{Tom}(s \ 3 \ 3') \ [6 \ \text{pis}] \\ PLAIN QUALITY \$\pm\notation \text{Toother Left}(L) \text{ and Right}(R) \text{ as looking downstream} \(\text{Toother Elooph_Ain QUALITY} \) \[\begin{align*} \L R & (Most Predominant per Bank) \\ \begin{align*} \L R & (Most Predominant per Bank) \\ \begin{align*} \L R & (Most Predominant per Bank) \\ \begin{align*} \L R & (Most Predominant per Bank) \\ \begin{align*} \L R & (Conservation Tillage \\ \begin{align*} \left(\text{Dry no Industrial Pield} \\ \begin{align*} \D \text{Qpen Pasture, Row Crop} \\ \d \end{align*} \] \[\begin{align*} \D \text{Residential, Park, New Field} \end{align*} \D \text{Qpen Pasture, Row Crop} \\ \d \end{align*} \D \text{Mining or Construction} \\ \end{align*} \] \[\begin{align*} \D \text{Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)} \end{align*} \] \[\text{ere 61 m (200 ft) of channel)} \text{(Check ONLY one box):} \\ \end{align*} \qua	Width Max=30
-4.0 meters (> 13') [30 pts] -3.0 m -4.0 m (> 9.7" (3') [25 pts] -3.0 m -4.0 m (> 9.7" (3') [25 pts] -3.0 m -3.0	This information must also be completed PLAIN QUALITY	Width Max=30
-4.0 meters (> 13') [30 pts] -3.0 m -4.0 m (> 9.7" (3') [25 pts] -3.0 m -4.0 m (> 9.7" (4') [20 pts] -3.0 m (3') [25 pts] -3.0 m (3') [25 pts] -3.0 m (3') [20 pts] -3.0 m -3.0	This information must also be completed PLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Residential, Park, New Field Residential, Park, New Field Residential, Park, New Field Moist Channel, isolated pools, no flow (Intermittent) Moist Channel, no water (Ephemeral) Moist Channel, no water (Ephemeral) Ref 61 m (200 ft) of channel) (Check ONLY one box): 1.0 1.0 2.0 3.0 3.0 3.0 3.1	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes Yo QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: STREAM B - UT to Dugan Run Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
☐ EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order
County: CHAMPAIGN Township / City:
MISCELLANEOUS
Base Flow Conditions? (Y/N): \(\frac{1}{2} \) Date of last precipitation: \(\frac{10}{12} \) / 1 \(\frac{11}{12} \) Quantity: \(\frac{7}{2} \)
Photograph Information: Yes - /
Elevated Turbidity? (Y/N): \(\sum_{\text{t}} \) Canopy (% open): \(\sum_{\text{t}} \)
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: CWlver+
DIOTO 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)
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
Forest/ss
Cobble/411+ 70001/55
Charles Service Constitution of
FLOW TO THE TOTAL OF THE TOTAL
Forest forest
To rest classes of the
Story Children & Child

Ephomeral

5-	TREAM	MM
F	TREAM.	

HHEI Score (sum of metrics 1, 2, 3):	9
SITE NAME/LOCATION STREAM MMUTTO MT TO PROCTOR RUN	
	13
LENGTH OF STREAM REACH (ft) 200 LAT. 40.13742 LONG. 83. 579 3 RIVER CODE RIVER MILE_	
DATE 10/12 11 SCORER B. FALLING WENTS DRY	· · · · · ·
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL	VERY
MODIFICATIONS	
 SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. 	HHEI
TYPE PERCENT TYPE PERCENT \\ \sqrt{98''}	Metric Points
O O LEAF PACKWOODY DEBRIS [3 pts] 7.7.	
BEDROCK [16 pt]	Substrate Max = 40
COBBLE (65:255 inin) [12 pts]	O I
O SAND (42 mm) [6 pts] O ARTIFICIAL [3 pts]	
Total of Percentages of (A) (B). 7	A+B
Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
☐ > 30 centimeters [20 pis] ☐ 3 > 5 cm - 10 cm [15 pis] ☐ > 22.5 - 30 cm [30 pis] ☐ < 5 cm [5 pis]	0
O > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	
COMMENTSMAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
☐ />4.0 meters (> 13') [30 pts] ☐	Width _Max=30_
(4) × 1.5 m = 3.0 m (5.9.7°, 46.8°) [20 pts]	20
COMMENTS 6 AVERAGE BANKFULL WIDTH (meters)	
	Brock Company
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R U U Wide > 10m U Mature Forest, Welland U Conservation Tillage	•
Moderate 5-10m	
Narrow Spr. Q C Residential Park New Field Open Pasture, Row	
None	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, Isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Moist Channel, Isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	,
COMMENTS	

STREAM GRADIENT ESTIMATE (0.5 ft/100 ft) Flat to Moderate

Flat (0.5 ft/100 ft)

None 0.5

Moderate (2 ft/100 ft)

1.0 1.5

☐ Moderate to Severe

2.0 2.5

☐ Severe (10 ft/100 ft)

3.0 >3

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	1-MM
QHEI PERFORMED? - Yes No QHEI Score(If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name: PROCTOR RUN Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream	. 1 1
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE	LOCATION
USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stre	am Order
MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: 10/12/11 Quantity: Trace Photograph Information: 185 1 + 1/1	
Elevated Turbidity? (Y/N): Canopy. (% open): Owner 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 ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment.	
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? Comments Regarding Biology: Youl TRY	? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be complicated important landmarks and other features of interest for site evaluation and a narrative description of the stream of the st	

Ephemeral

Mod class It

		E	pnemerax	Mod class II	NN
	ChieEPA	Primary Headwater	Habitat Evalu	uation Form STREA (sum of metrics 1, 2, 3):	46
	SITE NAME/LOCATION	EVER POWER ITE NUMBER STR- MN RIVE	RBASIN_Little]		0.51
	DATE 0 13 1 SCOR NOTE: Complete All Item	ER B.FALK IN BUPS OMMENT s On This Form - Refer to "Field	s <u> </u>	or Ohio's PHWH Streams"; for Ir	nstructions
0C105C0000000	:MODIFICATIONS:	EUNONE/NATURAL GEANNEL.	d zame		
· .	(Max of 32). Add total r TYPE BLOR SLABS [16]		ound (Max of 8). Final metri PE SILT (3.pt)	ric score is sum of boxes A & B. PERCENT	HHEI Metric Points
	BEDROCK 116 pt GOBBLE (65-256 ii GRAVEL (2-64 mir] iiii) [12 pts]	☐ LEAF PACKWOOD ☐ FINE DETRITUS [: ☐ CLAY OF HARDPAN ☐ MUCK 10 pts]	3 pts]	Substrate Max = 40
	SAND (42 mm) [6] Total of Percenta Bldr Slabs, Boulder, Co	ages of 70% (A)		(B) 5	A+B
	2. Maximum Pool Depth	(Measure the maximum pool depth ge pools from road culverts or storm w	within the 61 meter (200	ft) evaluation reach at the time of Y one box):	Pool Depth Max = 30
	22.5 30.cm [30.pts]			OIST CHANNEL [0 pts] O	
	COMMENTS				17 4 7 5 (1)
	3. BANK FULL WIDTH (n	13') [25 pts]	surements) (Che	eck ONLY one box): 3 3 4 4 8) [15 pts] pts]	Bankfull Width Max=30
	3. BANK FULL WIDTH (F	his] 37, [25 pts] 4 8") [20 pts] }		3 3 - 4 8) [15 pts] pts] BANKFULL WIDTH (meters)	Width
	3. BANK FULL WIDTH (I 4.0 maters (2-13) (30 t) 3.0 m 4.0 m (> 9.7) 1.5 m 3.0 m (> 9.7) COMMENTS RIPARIAN ZON RIPARIAN WI L R (Per Bank)	This information of the property of the proper	AVERAGE I AVERAGE I ANOTE: River Left (L) an UALITY Predominant per Bank)	a 3 - 4 8) [15 pts] pts] BANKFULL WIDTH (meters) sted ad Right (R) as looking downstream L R	Width Max=30
	3. BANK FULL WIDTH (I	This information of the complete of the comple	AVERAGE I AVERAGE I tion <u>must</u> also be complet ANOTE: River Left (L) and the complet of the complete of the c	BANKFULL WIDTH (meters) ted d Right (R) as looking downstream Urban or Industrial Open Pasture, Row	Width Max=30
	BANK FULL WIDTH (I 4.0 meters (2-37) (30 t) 3.0 m 4.0 m (> 9.7) 1.5 m 3.0 m (> 9.7) COMMENTS RIPARIAN ZON RIPARIAN W L R (Per Bank) Wide >10m Moderate 5- Namow <5m None COMMENTS	This information of the complete of the comple	AVERAGE IN	BANKFULL WIDTH (meters) ted d Right (R) as looking downstream Urban or Industrial	Width Max=30
	BANK FULL WIDTH (I 4.0 meters (* 3.) 130 f 3.0 m 4.0 m (* 9.7 f 3.0 m 4.0 m (* 9.7 f 1.5 m 3.0 m (* 9.7 f COMMENTS RIPARIAN ZON RIPARIAN WI R (Per Bank) Wide >10m Moderate 5- Narrow <5m None COMMENTS FLOW REGIME Stream Flowing Subsurface flow COMMENTS	This informate NE AND FLOODPLAIN QUALITY IDTH	AVERAGE I	BANKFULL WIDTH (meters) ted d Right (R) as looking downstream Conservation Tillag Urban or Industrial Open Pasture, Row Crop Mining or Construct nnel, isolated pools, no flow (Intermittel, no water (Ephemeral)	Width Max=30
	BANK FULL WIDTH (I 4.0 meters (* 3.) 130 f 3.0 m 4.0 m (* 9.7 f 3.0 m 4.0 m (* 9.7 f 1.5 m 3.0 m (* 9.7 f COMMENTS RIPARIAN ZON RIPARIAN WI R (Per Bank) Wide >10m Moderate 5- Narrow <5m None COMMENTS FLOW REGIME Stream Flowing Subsurface flow COMMENTS	This informative AND FLOODPLAIN QUALITY IDTH	AVERAGE I	BANKFULL WIDTH (meters) ted d Right (R) as looking downstream Conservation Tillag Urban or Industrial Open Pasture, Row Crop Mining or Construct nnel, isolated pools, no flow (Intermittel, no water (Ephemeral)	Width Max=30

	ADDITIONAL STREAM INFORMATION (This Information Must	Also be Completed):	STREAM NN
•	QHEI PERFORMED? - Yes Mo QHEI Score	(If Yes, Attach Completed C	HEI Form)
į	DOWNSTREAM DESIGNATED USE(S) WWH Name: LITTLE DARBY CREEY		n Evaluated Stream
	CWH Name:		Evaluated Stream
•			1
	MAPPING: ATTACH COPIES OF MAPS, INCLUDING TH	X	•
÷	USGS Quadrangle Name:	NRCS Soil Map Page: Nownship / City:	RCS Soil Map Stream Order
	MISCELLANEOUS	10/13/11 today Quantity:	
	Base Flow Conditions? (Y/N): Date of last precipitation:	10/13/11 Quantity:	
	Elevated Turbidity? (Y/N): Canopy (% open):	55	
	Were samples collected for water chemistry? (Y/N): (Not	e lab sample no. or id. and attach results	s) Lab Number:
	Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)Conduc	tivity (µmhos/cm)
	Carlot Comments	not, please explain:	
	ARIA TOTAL		
			
	Additional comments/description of pollution impacts:		
	BIOTIC EVALUATION		
	Performed? (Y/N): (If Yes, Record all observations. Vo	ucher collections optional. NOTE: all vouc	ner samples must be labeled with the site
		data sheets from the Primary Headwater I	
C.	Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) A	rs Observed? (Y/N)_/\frace\tau\ Voucher? (Y quatic Macroinvertebrates Observed? (Y	(N)
	Comments Regarding Biology: + Crestrial b		
		·	
	DRAWING AND NARRATIVE DESCRIPTION OF STATE OF ST	ON OF STREAM REACH (This	must be completed):
	include important landmarks and other features of interes	st for site evaluation and a narrative de	scription of the stream's location
	HAWK RD		
1/			
$\leftarrow N$		18	
a-T. \0.	FLOW Lelectric line	100000000000000000000000000000000000000	VB
Choice	0 100 0 000 000 0000		
		UB	
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•		ER C. A A	esien
		$\hat{\mathbf{x}}$	
İ	PHV	VH Form Page - 2	
	October 24, 2002 Revision	propose	d interconnect "

Mod class II

STREAM - 0 0 Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION EVER POWER - 4+ +0 BUCK CR.	
SITE NUMBER STA-00 RIVER BASIN	DRAINAGE AREA (mi²)O.69
LENGTH OF STREAM REACH (ft) 200 LAT. 40.07 727 ONG. 83.646/3 RIVER COL	DE RIVER MILE
DATE 10/13/11 SCORER B. FALKINBY COMMENTS DRY + Char	relized
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's	PHWH Streams" for Instructions
STREAMICHANNEL SINONE NATURAL GHANNEL STREGOVERED A DIRECTORIN	G WRECENTEGRINOREGOVERY
MODIFICATIONS: (Nematic Zee	
	2. mars 1. mar
 SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predom! (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is 	nant substrate TYPE boxes sum of boxes A & B.
TYPE PERCENT TYPE	PERCENT Metric
OO (BLDR SLABS [16 pis]) O (BOULDER (-256 mm) [16 pis]) O (CEAE PACK/WOODY DEBRIS	Points
☐☐ BEDROCK [16:pt]	Substrate Max = 40
☐ COBBLE (65-256 mm) [12 pts]	
## ☐ GRAVEL (2:54 min) [9 pis]	1/6
Total of Percentages of Zo'/. (A)	(B) // A+B
Bidr Slabs, Boulder, Cobble, Bedrock 201	1911 ^**
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SU	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluate evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box)	ion reach at the time of Pool Depth : Max = 30
□ >30 centimeters [20 pts]	
☐ \$22.5 - 30 cm [30 pis] ☐ \$5 cm [5 pts] ☐ \$5 cm [5 pts] ☐ \$10 - 22.5 cm [25 pts] ☐ \$10 - 22.5 cm [25 pts]	ANNEL [0 pts]
COMMENTS Dry 0 MAXIMUM POOL DE	TH (centimeters):
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY ロッチの中には、13) [30 pbs] (Check ONLY ロッチの中には、13) [30 pbs] (これの中には、13) [30 pbs] (Check ONLY ロッチャル・ファイル・ファイル・ファイル・ファイル・ファイル・ファイル・ファイル・ファイ	one box): Bankfull [15 pts] Width
□ 3.0 m 4.0 m (>9.7° -13) [25 pts] □ (\$1.0 m (\$3.3°) [5 pts] 13 (>1.5 m = 3.0 m (>9.7° -418°) [20 pts]	
r'a!	feet 6911 20
COMMENTS φ 7 AVERAGE BANKFUL	L WIDTH (meters)
This Information must also be completed	· · · · · · · · · · · · · · · · · · ·
RIPARIAN ZONE AND FLOODPLAIN QUALITY かNOTE: River Left (L) and Right (R RIPARIAN WIDTH FLOODPLAIN QUALITY) as looking downstream☆
L R (Per Bank) L R (Most Predominant per Bank) L	
☐ Wide >10m ☐ Mature Forest, Wetland ☐ ☐	- ·
☐	
. ■ Marrow <5m □ □ Residential, Park, New Field ■	Open Pasture, Row Grop
O None Fenced Pasture O.0	Mining or Construction
,	
	ed pools, no flow (Intermittent)
□ Subsurface flow with isolated pools (Interstitial)	er (Ephemeral)
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
22 None	□ 3.0
	. ∐ >3
STREAM GRADIENT ESTIMATE ☐ Flat (0.5 1/100 ft) ☐ Moderate (2 1/100 ft) ☐ Moderate to Severe	Severe (10 ft/100 ft)
- Light from the Waster or understate in month in the Minner of the Control of th	C Severe (10 m/100 m)

DRAWING AND NARRATIVE DESCRIPTION OF STREATING Include Important landmarks and other features of Interest for site evaluation or chiral grass FLOW	• • •
DRAWING AND NARRATIVE DESCRIPTION OF STREATING Include important landmarks and other features of interest for site evaluation or chiral grass	on and a narrative description of the stream's location CORN Orchard 5005
DRAWING AND NARRATIVE DESCRIPTION OF STREATING Include important landmarks and other features of interest for site evaluation or chiral grass	on and a narrative description of the stream's location CORN Orchard 5005
DRAWING AND NARRATIVE DESCRIPTION OF STREATING Include important landmarks and other features of interest for site evaluation or chiral grass	on and a narrative description of the stream's location CORN Orchard 5005
DRAWING AND NARRATIVE DESCRIPTION OF STREATIVE Include important landmarks and other features of interest for site evaluation	on and a narrative description of the stream's location CORN Orchard 5005
DRAWING AND NARRATIVE DESCRIPTION OF STREATIVE Include important landmarks and other features of interest for site evaluation	AM REACH (I ris <u>must</u> be completed): on and a narrative description of the stream's location
DRAWING AND NARRATIVE DESCRIPTION OF STREATING Include important landmarks and other features of interest for site evaluation	on and a narrative description of the stream's location
DRAWING AND NARRATIVE DESCRIPTION OF STREAM	AM REACH (This <u>must</u> be completed):
pigneed, mulberry suplings, ga	
	cen to x tail, yellow sweet
Stream Changel - veluet	- leaf, bruyard gras morning glory
uplant plant species (FACI	4 + UPL) growing in
From Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinverte Comments Regarding Biology: Farth worm under p	ebrates Observed? (Y/N) Voucher? (Y/N)
ID number. Include appropriate field data sheets from the Fish Observed? (Y/N) Salamanders Observed? (Y/N) Salamanders Observed? (Y/N)	. 1
Performed? (Y/N): (If Yes, Record all observations. Voucher collections op	tional. NOTE: all voucher samples must be labeled with the site
BIOTIC EVALUATION	
Additional comments/description of pollution impacts:	
Is the sampling reach representative of the stream (Y/N) / If not, please explain	
Field Measures: Temp (°C)Dissolved Oxygen (mg/l)pH (S.U	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or	r id. and attach results) Lab Number:
Elevated Turbidity? (Y/N): Canopy (% open): / O O '/.	
Photograph Information: Yes 1 + T	· · · · · · · · · · · · · · · · · · ·
Base Flow Conditions? (Y/N): Date of last precipitation:	//3// Quantity: ?
MISCELLANEOUS	
County: Township / City:	
USGS Quadrangle Name: NRCS Soil N	Map Page: NRCS Soil Map Stream Order
	1.
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERS	Distance from Evaluated Stream
Ly Evvn Name:	Distance from Evaluated Stream Distance from Evaluated Stream
Ly Evvn Name:	
□ EWH Name: Buck Creek	
□ WWH Name: □ EWH Name: □ EWH Name:	, Attach Completed QHEI Form)

ChieFPA Primary Headwater Habitat Evaluation Form

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

STREA	M	P	P
1, 2, 3):		5	

SITE NAME/LOCATION EVER POWER - STREAM PP - phase 2 interconnect beam TROAT	0
SITE NUMBER STRIPP RIVER BASIN DRAINAGE AREA (mi²)	0.1
LENGTH OF STREAM REACH (#) 200 LAT. 40.09636 LONG. 83.60214 RIVER CODE RIVER MILE	
DATE 9 14 11 SCORER B. FALKINBURG COMMENTS DRY-UT to Little Darby C	·
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	BEODE SOSCEREDISENSERS
STREAM CHANNEL IN NONE/NATURAL CHANNEL PRECOVERED RECOVERING RECENTION NO. REC	DVERY
MODIFICATIONS: FOR SAME WAS LIVENED AT LIVENED AND LIVENED AT LIVE	
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI Metric
TYPE PERCENT TYPE PERCENT BUDR SLABS (16 pts) PERCENT D D BUDR SLABS (16 pts) PERCENT S D D SULT [3 pt]	Points
BOULDER (>256 mm) (15 pts)	Substrate
BEDROCK [16 pt] FINE DETRITUS [3 pts] COBBLE (65-256 mm) [12 pts] V 10 CLAY or HARDPAN [0 pt]	Max = 40
GRAVEL (2-64 mm) [9 pts] GRAVEL (2-64 mm) [9 pts] GRAVEL (2-64 mm) [9 pts]	10
SAND (+2 mm) [6 pts] O ARTIFICIAL [3 pts]	
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock 11 1/. (A) 6	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): So centimeters [20 pts] >5 cm - 10 cm [15 pts]	Max = 30
☐ >22.5 : 30 cm [30 pts]	0
□ > 10 + 22.5 cm [25 pts]	
COMMENTS O - D(2) MAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Show the second of the control of th	Bankfull Width
□ > 3.0 m ≥4.0 m (> 9° 7° 13) [25 pts]	Max=30
□ (> 1.5 m > 3.0 m (> 9.7° + 8°) [20 pts] 3'	5
COMMENTS 3 2.5 3.5 = 3 AVERAGE BANKFULL WIDTH (meters)	
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
☑ Wide >10m	
Moderate 5-10m	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	
OMMENTS ON being on Et growth	
COMMENTO	- .
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing ·	
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
☐ None ☐ 1.0 ☐ 2.0 ☐ 3.0	
☐ None ☐ 1.0 ☐ 2.0 ☐ 3.0 ☐ 3.0 ☐ >3	•

	QHEI PERFORMED? - Tyes Yoo QHEI Score (If Yes, Attach Completed QHEI Form)
	DOWNSTREAM DESIGNATED USE(S)
(YWWH Name: Little Darby Creek Distance from Evaluated Stream
	CWH Name: Distance from Evaluated Stream
	Distance from Evaluated Stream
	MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
ι	SGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order_
C	COUNTY: CHAMPAIGN TOWNShip / City:
	MISCELLANEOUS ,
E	Pase Flow Conditions? (Y/N): Date of last precipitation: 10 14/11 Quantity: 7
F	hotograph Information: Yes J 4 T
	Elevated Turbidity? (Y/N): Canopy (% open):
٧	Vere samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
F	ield 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:
Is	s the sampling reach representative of the stream (Y/N) / If not, please explain:
-	BIOTIC EVALUATION
F	
F	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Observed? (Y/N)
F	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled wit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N)
F	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Observed? (Y/N)
F	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: No feet
F	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with line in the primary Headwater Habitat Assessment Manual) is hobserved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: No feet Volume
F C	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with lib number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) OTHER COMMING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include Important landmarks and other teatures of interest for site evaluation and a narrative description of the stream's local contents.
F C	EIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled wit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology:
F C 	EIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled wit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology:
F F C C	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: No Performance of the Stream 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 local stream Start; have @ culvert inverted.
F F C C	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: No Performance of the Stream 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 local stream Start; have @ culvert inverted.
F F C C	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: No Performance of the Stream 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 local stream Start; have @ culvert inverted.
F F C C	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: No +e
F F C C C C C C C C C C C C C C C C C C	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with a complete include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: No ne
F F C C C C C C C C C C C C C C C C C C	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with a complete include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: No ne
F F C C C C C C C C C C C C C C C C C C	erformed? (Y/N):
F F C C C C C C C C C C C C C C C C C C	BIOTIC EVALUATION erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with a complete include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology: No ne

STREAM QQ ChicEPA Primary Headwater Habitat Evaluation Form

orm	12
rics 1, 2, 3):	15

			* * *********
SITE NAME/LOCATION EVEL POWE		DRAINAGE AREA (mi²)	70
DATE IN SCORED 3 FAI	LANGE TO Y	RIVER CODE RIVER MILE	
		ual for Ohio's PHWH Streams" for Instru	
		RECOVERING RECENTION NO RECO	WERY.
MODIFICATIONS			
SUBSTRATE (Estimate percent of e	very type of substrate present. Check O/	VLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of signi	ficant substrate types found (Max of 8). Fina	al metric score is sum of boxes A & B.	HHEI Metric
TYPE BUDR SLABS [16 pis]	PERCENT TYPE SILT [3 pt]	PERCENT 95	Points
☐ ☐ BOULDER (>256 mm) [16 pts]		WOODY DEBRIS [3 pts]	Substrate :
☐ BEDROCK [16 pt] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] ✓	TO GIAYOFAA	TUS [3 pts] REPAN [0 pt]	Max = 40
GRAVEL (2-64 mm) [9 pts]	2 00 MUCK 0 pts		10
SAND (<2 mm) [6 pts]	O ARTIFICIAL	CONTENTED DE TORPHET DE STENCE ON DE SECONO DE	
Total of Percentages of	'/_ (A) /	(B)	A + B
Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUE		NUMBER OF SUBSTRATE TYPES: 4.4	
	<u> </u>	(200 E)	
 Maximum Pool Depth (Measure the evaluation. Avoid plunge pools from ro 	maximum pool depth within the 61 mete ad culverts or storm water pipes) (Check	r (200 ft) evaluation reach at the time of CONLY one box):	Pool Depth Max = 30
☐ >30 centimeters [20 pts]	☐ >5 cm - 10 ☐ <5 cm [5 p i	cm [15 pts]	
> 22.5 = 30 cm [30 pts] > 10 - 22.5 cm [25 pts]		OR MOIST CHANNEL [0 pts]	
Ja V			
COMMENTS VICT	IXAM	MUM POOL DEPTH (centimeters):	
COMMENTS VRY			Pontfull
3. BANK FULL WIDTH (Measured as the control of the	ne average of 3-4 measurements)	(Check <i>ONLY</i> one box):	Bankfull Width
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m. 4.0 m (> 9' 7" 13') [25 pts]	ne average of 3-4 measurements)	(Check ONLY one box):	
3. BANK FULL WIDTH (Measured as the second s	ne average of 3-4 measurements)	(Check <i>ONLY</i> one box): 5 m (> 3 3 - 4 8) [15 pts] (3") [5 pts] 2 2	Width
3. BANK FULL WIDTH (Measured as th > 4.0 meters (> 13') [30 pts] > 3.0 m. 4.0 m (> 9' 7" 13') [25 pts]	ne average of 3-4 measurements)	(Check <i>ONLY</i> one box):	Width
3. BANK FULL WIDTH (Measured as the second s	ne average of 3-4 measurements)	(Check ONLY one box): 5m (>3·3·4·8·) [15 pts] (3') [5 pts] AGE BANKFULL WIDTH (meters)	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be copplain QUALITY ☆NOTE: River Left	(Check ONLY one box): 5m (>3·3·4·8·) [15 pts] (3') [5 pts] AGE BANKFULL WIDTH (meters)	Width
3. BANK FULL WIDTH (Measured as the second s	e average of 3-4 measurements) Stom St. St. om St. St. om (≤:	(Check ONLY one box): 5m (>33-48') [15 pts] (3') [5 pts] AGE BANKFULL WIDTH (meters) completed (L) and Right (R) as looking downstreams	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be conceptain QUALITY L R (Most Predominant per Bar Mature Forest, Wetland	(Check ONLY one box): Sim (>3:3'-4'8') [15 pts] 2 LAGE BANKFULL WIDTH (meters) completed (L) and Right (R) as looking downstream cik) LR Conservation Tillage	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be constant QUALITY L R (Most Predominant per Bar	(Check ONLY one box): 5m (>3·3·4·8') [15 pts] LAGE BANKFULL WIDTH (meters) completed (L) and Right (R) as looking downstream: k) L Conservation Tillage Old Urban or Industrial	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be conceptain QUALITY L R (Most Predominant per Bar Mature Forest, Wetland Immature Forest, Shrub or	(Check ONLY one box): 5m (>3·3·4·8') [15 pts] 2 LAGE BANKFULL WIDTH (meters) completed (L) and Right (R) as looking downstream☆ lk) LR Conservation Tillage Old Urban or Industrial d Open Pasture, Row	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be concentration QUALITY L R (Most Predominant per Bar Mature Forest, Wetland Immature Forest, Shrub or Field	(Check ONLY one box): Sim (>3:3'-4'8') [15 pts] 2 AGE BANKFULL WIDTH (meters) Completed (L) and Right (R) as looking downstream (R) and Conservation Tillage (R) and Conservation Tillage (R) and Conservation Tillage	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be conceptain QUALITY Replain	(Check ONLY one box): 5m (>3 3 48) [15 pts] LAGE BANKFULL WIDTH (meters) Completed (L) and Right (R) as looking downstreams ak) LR Conservation Tillage Old Urban or Industrial Copen Pasture, Row Crop	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be concentral Mature Forest, Wetland Immature Forest, Shrub or Field Residential, Park, New Field Fenced Pasture	(Check ONLY one box): Sim (>3.3" 4.8") [15 pts] 2 AGE BANKFULL WIDTH (meters) Completed (L) and Right (R) as looking downstream (R) and Right (R) as lookin	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be concentral Mature Forest, Wetland Immature Forest, Shrub or Field Residential, Park, New Field Fenced Pasture Paluation) (Check ONLY one box): Mois Predominant per Bar Mature Forest, Wetland Immature Forest, Shrub or Field Mature Forest, Shrub or Field Mature Forest Shrub o	(Check ONLY one box): 5m (>3 3 48) [15 pts] LAGE BANKFULL WIDTH (meters) Completed (L) and Right (R) as looking downstreams ak) LR Conservation Tillage Old Urban or Industrial Copen Pasture, Row Crop	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be concentral Mature Forest, Wetland Immature Forest, Shrub or Field Residential, Park, New Field Fenced Pasture Paluation) (Check ONLY one box): Mois Predominant per Bar Mature Forest, Wetland Immature Forest, Shrub or Field Mature Forest, Shrub or Field Mature Forest Shrub o	(Check ONLY one box): Sim (>3.3" 4.8") [15 pts] 2 AGE BANKFULL WIDTH (meters) Completed (L) and Right (R) as looking downstream (R) and Right (R) as looki	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be concentral Mature Forest, Wetland Immature Forest, Shrub or Field Residential, Park, New Field Residential, Park, New Field Fenced Pasture Concentral Content of the Concentral Content of the Content	(Check ONLY one box): Sim (>3:3" 4:8") [15 pts] AGE BANKFULL WIDTH (meters) Completed (L) and Right (R) as looking downstream (L) and Right (R) as looking d	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be concentration QUALITY AVER This information must also be concentration QUALITY L R (Most Predominant per Bar Mature Forest, Wetland Immature Forest, Shrub or Field Residential, Park, New Field Residential, Park, New Field Fenced Pasture Trajuation) (Check ONLY one box): Cools (Interstitial)	(Check ONLY one box): Sim (>3:3" 4:8") [15 pts] AGE BANKFULL WIDTH (meters) Completed (L) and Right (R) as looking downstream Ak) Conservation Tillage Old Open Pasture, Row Crop Mining or Construction At Channel, isolated pools, no flow (Intermittent) Channel, no water (Ephemeral)	Width
3. BANK FULL WIDTH (Measured as the second s	This information must also be concentration of the following state o	(Check ONLY one box): Sim (>3:3" 4:8") [15 pts] AGE BANKFULL WIDTH (meters) Completed (L) and Right (R) as looking downstream: Ak) Conservation Tillage Old Urban or Industrial Open Pasture, Row Crop Mining or Construction At Channel, isolated pools, no flow (Intermittent) Channel, no water (Ephemeral)	Width

Mod class II by HHEI

Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3): 42

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Н	ı		
Н	1		. /
Н	1		110
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П			- 1 /
			1 -

SITE NAME/LOCATION EVER DIVER - DH 2-	
SITE NUMBER STR WW RIVER BASIN UT LI'THE DATERAINAGE AREA (mi²) 0.	<u>42</u>
LENGTH OF STREAM REACH (ft) 200 LAT. LONG. RIVER CODE RIVER MILE DATE 10 19 11 SCORER BMF COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruc	ctions
STREAM CHANNEL IN SINONE / NATURAL CHANNEL PRECOVERED IN RECOVERING IN RECENTION NO RECOVERED (IN RECOVERED IN RECOVERED I	/ERY
DD BLDR SLABS (16 pis) DD SILT [3 pi] DD BOULDER (-256 mm) (16 pis) DD LEAF PACK/WOODY DEBRIS [3 pis) DD BEDROOK (16 pis) DD FINE DETRITUS (3 pis)	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	ool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 30 centimeters [20 pts] 5 cm 10 cm [15 pts] 522.5 30 cm [30 pts] 5 cm 5 pts] NO.WATER OR MOIST CHANNEL [0 pts] NO.WATER OR MOIST CHANNEL [0 pts] 7	Max = 30
COMMENTS dry Chanel MAXIMUM POOL DEPTH (centimeters):	
> 4.0 meters (> 13') [30 pris]	Bankfull Width Max=30
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$NOTE: River Left (L) and Right (R) as looking downstreams	•
RIPARIAN WIDTH FLOODPLAIN QUALITY	,
L``R (Per Bank) L R (Most Predominant per Bank) L R Mature Forest, Wetland M Conservation Tillage	
Moderate 5-10m Million Immature Forest, Shrub or Old, DD Urban or Industrial	
☐ ☐ Narrow <5m ☐ ☐ Residential, Park, New Field ☐ ☐ Open Pasture, Row Crop	
None GOMMENTS Mining or Construction	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS No *16" Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft)	,

ADDITIONAL STREAM INFORMATION (This information Must Also be Completed	11: STREAM WW
QHEI PERFORMED? - Yes No QHEI Score (If Yes,	Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WH Name:	Distance from Evaluated Stream Distance from Evaluated Stream
DEWH Name: Little Darby Creek	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERS!	HED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: NRCS Soll Ma	ap Page: NRCS Soil Map Stream Order
County: CHAMFAIGN Township / City:	·
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation: TODRY	Quantity: 21
Photograph Information:	
Elevated Turbidity? (Y/N): Canopy (% open): 30 1/	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or i	d, and attach results) Lab Number:
Fleld Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:	• • • • • • • • • • • • • • • • • • • •
4	
Additional comments/description of pollution impacts: Concrete	Rubble Ford Crossing
for Ag implements	0
BIOTIC EVALUATION	
	onal. NOTE; all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the	
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpotes Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertet	Voucher? (Y/N) / Voucher? (Y/N)
Comments Regarding Biology: 10 ne	•
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
NA LANE	ncrete Rubble Fjord Crossing
/ A Van 1	
of cooperation of the contraction of the contractio	, creb , co sho le
FLOW -	←
	nul
Sov grade (2)	CORIN
SOY BEANS	
(PHWH Form Page - 2	
October 24, 2002 Revision	

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Mod class IL by HHEI

ephemeral Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1,

STREAM XX

					ΩT
SITE NA	ME/LOCATION EVER POW		111		
	SITE NUMBER_	オペンXX RIVER BAS	SIN Little Darby	_ DRAINAGE AREA (mi²) $\underline{\mathcal{L}}$	1.01
	OF STREAM REACH (ft) 200				
	/0/19/11 SCORER BMF				
	: Complete All Items On This For		•		
	M'CHANNEL DINONE/NA				
MODIF	CATIONS:		· · · · · · · · · · · · · · · · · · ·		gara e
	SUBSTRATE (Estimate percent of eve				·
	(Max of 32). Add total number of signific				HHEI
TYPE	BLDR SLABS 116 pts1	PERCENT TYPE	SILT 13 pt]	PERCENT .	Metric Points
	BOULDER (>256 mm) [16 pts]				Cubatuata
	BÉDRÖCK [16 pt] COBBLE (65-256 mm) [12 pts]		LEAF PACK/WOODY DEBRIS FINE DETRITUS (3 pts) CLAY of HARDPAN (0 pt)	710	Substrate Max = 40
	GRAVEL (2-64 mm) [9 pts]		MUCK to ptsi	1.11	72-
ďΟ	SAND (<2 mm) [6 pts]		ARTIFICIAL 13 ptsj		125
_	Total of Percentages of	(A) \((A)		(B) ~	A+B
SCORE	Bidr Slabs, Boulder, Cobble, Bedrock OF TWO MOST PREDOMINATE SUBS	TRATE TYPES: (A) \8	TOTAL NUMBER OF SU	BSTRATE TYPES:	
	· · · · · · · · · · · · · · · · · · ·				
2. I	Maximum Pool Depth (Measure the me evaluation. Avoid plunge pools from road	a <i>ximum pool deptn witnin</i> d culverts or storm wat <u>er</u> pip	es) (Check ONLY one box):	on reach at the time of	Pool Depth Max = 30
	evaluation. Avoid plunge pools from road 30 Centimeters [20 pts] 22.5 30.cm [30 pts] 10 - 22.5 cm [25 pts]		> 5 cm - 10 cm [15 pts]		
	10 + 22.5 cm [25 pts]	55 A	NO WATER OR MOIST CHA	NNEL [0 pts]	
		tou	•		100000000000000000000000000000000000000
· · ·	COMMENTS	1744	MAXIMUM POOL DEP	TH (centimeters):	
		average of 3.4 measurement	MAXIMUM POOL DEF		Panistrill
3. F	BANK FULL WIDTH (Measured as the	average of 3-4 measureme	ents) (Check ONLY	one box):	Bankfull Width
3	BANK FULL WIDTH (Measured as the 4.0 meters (> 13) [30 pts] 3.0 m 4.0 m (> 9 7 - 13) [25 pts]			one box): [16 pis]	
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 (> 9 7 - 4.6) [20 pts]		ents) (Check <i>ONLY</i> o \$1,0 m = 1,5 m (\$ 3° 3" + 4' 8") \$1,0 m (\$3° 3") [5 pts]	one box): [15 pis]	Width
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 (> 9 7 - 4.6) [20 pts]		ents) (Check ONLY	one box): [15 pis]	Width
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 (> 9 7 - 4.6) [20 pts]		ents) (Check <i>ONLY</i> o \$1,0 m = 1,5 m (\$ 3° 3" + 4' 8") \$1,0 m (\$3° 3") [5 pts]	one box): [15 pis]	Width
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 (> 9 7 = 4.8) [20 pts] COMMENTS RIPARIAN ZONE AND FLOODP	This information mu	ents) (Check ONLY of the control of	one box): (16 pts) - WIDTH (meters)	Width
3. E. A.	BANK FULL WIDTH (Measured as the 4.0 meters (> 13) [30 pts] 3.0 m = 4.0 m (> 9 7 = 13) [25 pts] 4.5 m = 3.0 m (> 9 7 = 4.8) [20 pts]	This information mu LAIN QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predomi	ents) (Check ONLY of the control of	one box): [Te pis] WIDTH (meters) as looking downstream 4	Width
3. CCC	BANK FULL WIDTH (Measured as the 4.0 meters (> 13) [30 pts] 3.0 m = 4.0 m (> 9 7 = 13) [25 pts] 1.5 m = 3.0 m (> 9 7 = 4.5) [20 pts] COMMENTS RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH L'R (Per Bank) Wide > 10m	This information mu LAIN QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predomi	ents) (Check ONLY of the control of	width (meters) as looking downstreams Conservation Tillage	Width
3. CCC	BANK FULL WIDTH (Measured as the 4.0 meters (> 13) [30 pts] 3.0 m	This information mu LAIN QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predomi	ents) (Check ONLY of the control of	width (meters) as looking downstreams Conservation Tillage	Width
3. OOO	BANK FULL WIDTH (Measured as the 4.0 meters (> 13) [30 pts] 3.0 m = 4.0 m (> 9 7 = 13) [25 pts] 1.5 m = 3.0 m (> 9 7 = 4.5) [20 pts] COMMENTS RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH L'R (Per Bank) Wide > 10m	This information mu LAIN QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predomi Mature Forest, Immature Fore	ents) (Check ONLY of the control of	as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row	Width
3. OOO	BANK FULL WIDTH (Measured as the 4.0 meters (2.13) [30 pts] 3.0 m	This information mu LAIN QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predomi Mature Forest, Immature Fore Field HA	ents) (Check ONLY of the control of	as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop	Width
3. OOO	BANK FULL WIDTH (Measured as the 4.0 meters (> 13) [30 pts] 3.0 m	This information mulain QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predoming Mature Forest, Immature Forest, Field HA	AVERAGE BANKFULI St also be completed E: River Left (L) and Right (R) Wetland St, Shrub or Old AVERAGE BANKFULI AVER	as looking downstreams Conservation Tillage Urban or Industrial Open Pasture, Row Crop	Width
3. O O O	BANK FULL WIDTH (Measured as the 4.0 meters (> 13) [30 pts] 3.0 m	This Information mu LAIN QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predomi	AVERAGE BANKFULI AVERAGE BANKFULI St also be completed E: River Left (L) and Right (R) Inant per Bank) Wetland St, Shrub or Old AK, New Field Box):	as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction	Width
3. O O O	BANK FULL WIDTH (Measured as the 4.0 meters (= 13) [30 pts] 3.0 m = 4.0 m (= 9 7! = 13) [25 pts] 1.5 m = 3.0 m (= 9 7! = 4.5 n) [20 pts] COMMENTS RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH L'R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation of Evaluation Subsurface flow with isolated pools	This information mu LAIN QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predoming Mature Forest, Immature Forest,	AVERAGE BANKFULI AVERAGE BANKFULI St also be completed E: River Left (L) and Right (R) Inant per Bank) Wetland St, Shrub or Old AK, New Field Box):	as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction d pools, no flow (Intermittent)	Width
3. O O O	BANK FULL WIDTH (Measured as the 4.0 meters (= 13) [30 pts] 3.0 m = 4.0 m (= 9 7! = 13) [25 pts] 1.5 m = 3.0 m (= 9 7! = 4.5 n) [20 pts] COMMENTS RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH L'R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation of Evaluation Stream Flowing)	This information mu LAIN QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predoming Mature Forest, Immature Forest,	AVERAGE BANKFULI AVERAGE BANKFULI St also be completed E: River Left (L) and Right (R) Inant per Bank) Wetland St, Shrub or Old AK, New Field Box): Moist Channel, Isolate	as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction d pools, no flow (Intermittent)	Width
3. OOO O	BANK FULL WIDTH (Measured as the 4.0 meters (2.13) [30 pis] 3.0 m 4.0 m (2.9) 7 13) [25 pis] 1.5 m 4.0 m (2.9) 7 120 pis] COMMENTS RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH L'R (Per Bank) Wide > 10m Moderate 5-10m Narrow < 5m None COMMENTS FLOW REGIME (At Time of Evaluation of Subsurface flow with isolated pools COMMENTS SINUOSITY (Number of bends per	This information mulain QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predom Mature Forest, Immature Fore Field A Residential, Paragraphy Fenced Pastur Quation) (Check ONLY one is (Interstitial)	AVERAGE BANKFULI AVERAGE BANKFULI St also be completed E: River Left (L) and Right (R) Wetland st, Shrub or Old AKENAGE BANKFULI Moist Channel, Isolate Dry channel, no water (Check ONLY one box):	width (meters) as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction d pools, no flow (Intermittent) (Ephemeral)	Width
3. OOO O	BANK FULL WIDTH (Measured as the 4.0 meters (> 13') [30 pts] 3.0 m	This Information mulain QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predomed Mature Forest, Immature Forest,	AVERAGE BANKFULI AVERAGE BANKFULI St also be completed E: River Left (L) and Right (R) Moist Channel, Isolate Dry channel, no water	as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction d pools, no flow (Intermittent)	Width
3. CCC	BANK FULL WIDTH (Measured as the 4.0 meters (> 13') [30 pis] 3.0 m	This information mulating QUALITY ANOT FLOODPLAIN QUALITY L R (Most Predoming Mature Forest, Immature Fores	ents) (Check ONLY one box): (Check ONLY one box): (Check ONLY one box):	as looking downstream Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction d pools, no flow (Intermittent) (Ephemeral)	Width

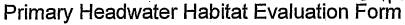
ADDITIONAL STREAM INF	ORMATION (This Information	Must Also be Complet	ed): 57,	REAM	XX
QHEI PERFORM	ED? - Tyes No QHEIS	core(if Yes	s, Attach Completed	QHEI Form)	
WWH Name:	DESIGNATED USE(S)	By CP.	Distance from	om Evaluated Strea m Evaluated Strear m Evaluated Strear	n
MAPPING: ATTAC	CH COPIES OF MAPS, INCLUDIN	, IG THE <u>ENTIRE</u> WATER	SHED AREA. CLEAR	LY MARK THE SIT	E LOCATION
USGS Quadrangle Name:	np A I GN	NRCS Soll i	Map Page:	NRCS Soil Map St	reäm Order
MISCELLANEOU Base Flow Conditions? (Y/N Photograph Information:): Date of last precipita	ation: Today	Quantity:_		· · · · · · · · · · · · · · · · · · ·
Elevated Turbidity? (Y/N):	,	20	, ,		• •
Were samples collected for v	water chemistry? (Y/N):		r id. and attach resul	is) Lab Number:	<u> </u>
	C)Dissolved Oxygen (r	1			
Is the sampling reach repres	entative of the stream (Y/N)	/_ If not, please explai	າ:		
Additional comments/descrip	tion of pollution impacts:		•	···	· · · · · · · · · · · · · · · · · · ·
	· .	·			
Performed? (Y/N): Fish Observed? (Y/N) Frogs or Tadpoles Observed Comments Regarding Biology	(If Yes, Record all observations ID number. Include appropriate Voucher? (Y/N) Salam? (Y/N) Voucher? (Y/N)	e field data sheets from the nanders Observed? (Y/N	ne Primary Headwater Voucher? (Habilat Assessmen	t Manuai)
				·	
DRAWING A	ND NARRATIVE DESCR	IPTION OF STREA	M REACH (This	must be com	pleted):
r'	dimarks and other features of In	nterest for site evaluation	on and a narrative de interpolation	escription of the st	
FLOW →	Gravel	Cobble	Grand	\	
		*			
٠,	HAY				



Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION
SITE NUMBER RIVER BASIN LITTLE DOWN DRAINAGE AREA (mi²) 2.27 LENGTH OF STREAM REACH (ff) LAT. 1/12 0 76 LONG. 83.585 / RIVER CODE RIVER MILE DATE 10 19 11 SCORER RIVER COMMENTS NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions' STREAM CHANNEL NONE / NATURAL CHANNEL PRECOVERED RECOVERING RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes
STREAM CHANNEL INONE / NATURAL CHANNEL IN RECOVERED A RECOVERING TRECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes
TYPE PERCENT TYPE PERCENT POINTS
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock 5 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: A + B
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] □ > 5 cm [0 cm [15 pts] □ > 5 cm [0 cm [15 pts] □ > 10 ÷ 22.5 cm [25 pts] □ > 10 ÷ 22.5 cm [25 pts] □ > 10 · 0 · 0 · 0 · 0 · 0 · 0 · 0 · 0 · 0
COMMENTS MAXIMUM POOL DEPTH (centimeters):
COMMENTS AVERAGE BANKFULL WIDTH (meters)
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L'R (Per Bank) Wide > 10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field This information must also be completed ANOTE: River Left (L) and Right (R) as looking downstream Narrow < 5m This information must also be completed ANOTE: River Left (L) and Right (R) as looking downstream Narrow < 5m This information must also be completed ANOTE: River Left (L) and Right (R) as looking downstream Narrow < 5m This information must also be completed ANOTE: River Left (L) and Right (R) as looking downstream Narrow < 5m This information must also be completed ANOTE: River Left (L) and Right (R) as looking downstream This information must also be completed NoTE: River Left (L) and Right (R) as looking downstream This information must also be completed NoTE: River Left (L) and Right (R) as looking downstream This information must also be completed NoTE: River Left (L) and Right (R) as looking downstream This information must also be completed NoTE: River Left (L) and Right (R) as looking downstream RIPARIAN VIDE (L) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Ri
None
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.7 STREAM GRADIENT ESTIMATE

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Distance from Evaluated Stream Distance from Evaluated Stream
DEWH Name: Little Darby Creek Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order
county: Champaign Township/City: Mechaics buy
MISCELLANEOUS Base Flow Conditions? (Y/N): Date of last precipitation: Quantity: Quantity:
Photograph Information: Ves V & T
Elevated Turbidity? (Y/N): Canopy (% open); DO
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or ld. and attach results) Lab Number:
Field Measures: Temp (°C)Dissolved Oxygen (mg/l)pH (S.U.)Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) / If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the single number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
N/A IS Electric Ferce
Oper pasture
FLOW -
clay, cobb, gravel
Proposed Access Rd

STREAM



oitat Evaluation Form

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

SITE NAME/LOCATION 1 20 (N 1) OW CO SITE NUMBER STYM 22-1 RIVER BASIN DRAINAGE AREA (mi²) U. 24 LAT. 40./0537 LONG. 83.624/9RIVER CODE LENGTH OF STREAM REACH (ft) 200 COMMENTS DRY DESPITE 2 DAYS SOLID RAIN! NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL WAR DONE / NATURAL CHANNEL DRECOVERED DRECOVERING PRECENTION NO RECOVERY **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. HHEI Metric PERCENT Points BLDR SLABS [16 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] BOULDER (>256 mm) [16 pts] Substrate FINE DETRITUS [3 pts] BEDROCK [16 pt] Max = 40COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 团团 GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) A + B Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES Pool Depth 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): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] < 5 cm [5 pts] > 22.5. - 30 cm [30 pts] NO WATER OR MOIST CHANNEL [0 pts] > 10 - 22.5 cm [25 pts] **MAXIMUM POOL DEPTH (centimeters):** COMMENTS (Check ONLY one box): Bankfull BANK FULL WIDTH (Measured as the average of 3-4 measurements) > 1.0 m = 1.5 m (≥ 3' 3" = 4' 8") [15 pts] > 4.0 meters (> 13') [30 pts] Width > 3.0 m² - 4.0 m (> 9º 7º - 13º) [25 pts] > 1.5 m² - 3.0 m̂ (> 9º 7º - 4'8º) [20 pts] ☐ 3 1.0 m (≤ 3' 3") [5 pts] Max=30 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) (Most Predominant per Bank) 図口 Mature Forest, Wetland Conservation Tillage Wide >10m Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Open Pasture, Row 88 Residential, Park, New Field Narrow <5m Crop> 00 None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent) Stream Flowing Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): 1.0 2.0 None 0.5

Moderate (2 ft/100 ft)

☐ Moderate to Severe

Severe (10 ft/100 ft)

STREAM GRADIENT ESTIMATE

☐ Flat to Moderate

☐ Flat (0.5 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed): STREAM 77	
QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S)	1
□ WWH Name: Distance from Evaluated Stream Distance from Eval	,
☐ EWH Name: Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order	
County: CHAMPAIGN Township/City:	
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Date of last precipitation: TODAY Quantity: 1-2	
Photograph Information:	
Elevated Turbidity? (Y/N): 1 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:	
, tadational commonicación position or position impacto.	
PIOTIC PIALLATION	
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) Vo	
Comments Regarding Biology:	
	J. J.
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):	40
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location	
NT Access, Rd Forest	7
NT Access, Ray Young Forest	
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FLOW - GRAVE	
FLOW SINTEL	_
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7	**
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Celly	Lighten to the state of the
PHWH Form Page - 2	

October 24, 2002 Revision

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

The Part of the Pa	29

SITE NAME/LOCATION LYCY DOWCY TYCASE T	
SITE NUMBER 22 RIVER BASIN DRAINAGE AREA (mi	
LENGTH OF STREAM REACH (ft) 200 LAT. LONG. RIVER CODE RIVER MII DATE 6 20 11 SCORER COMMENTS	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for	Instructions
STREAM CHANNEL INONE / NATURAL CHANNEL PRECOVERED DRECOVERING DRECENTION NO MODIFICATIONS:	
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE box	B HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE	Metric
BLDR SLABS 116 pits] SILT IS pt] SILT IS pt] SILT IS pt] LEAF PACKWOODY DEBRIS IS pts] 1/4	Points
□□ BEDROCK [16 pt] □□ FINE DETRITUS [3 pts]	Substrate Max = 40
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLÂY or HARDPAN [0 pt] ☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts]	
□□ SAND (<2 mm) [6 pts] □□ ARTIFICIAL [3 pts]	$\parallel 9 \parallel$
Total of Percentages of (A)	A+B
Bidr Slabs, Boulder, Cobble, Bedrock TOTAL NUMBER OF SUBSTRATE TYPES:	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunde pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
□ > 22.5 - 30 cm 30 pts □ < 5 cm 5 pts	_ ()
J	7 5
COMMENTS MAXIMUM POOL DEPTH (centimeters):	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull Width
□ □ 2 3.0 m 3.0 m (8.9 m 1.3) [25 pts] □ □ 10 m (2.3 3) [5 pts]	
> 1.5 m = 3.0 m (> 9.7; -4.8") [20 pts]	20
COMMENTSAVERAGE BANKFULL WIDTH (meters)	<i>I</i> '
This information <u>must</u> also be completed	2.5° هنرسبيسي سي سن <u>د ايند س</u> و
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY	ເ
L'/R / (Per Bank) L R (Most Predominant per Bank) L R	
Immature Forest, Shrub or Old Urban or Industrial	J e .
Field Onen Pasture Roy	
□ □ Narrow <5m □ □ Residential, Park, New Field □ □ Open asture, Now Crop □ □ None □ □ Fenced Pasture □ □ Mining or Construction	 tion
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	ont)
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermit	eill)
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
□ None □ 1.0 □ 2.0 □ 3.0	
□ None □ 1.0 □ 2.0 □ 3.0 □ 3.0 □ 1.5 □ 2.5 □ >3	

STREAM ZZZ

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	•
QHEI PERFORMED? - Yes No QHEI Score (If Yes, Attack	n Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name:	Distance from Evaluated Stream
CWH Name: BUCK (L.	
☐ EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED A	REA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: NRCS Soil Map Pa	ge: NRCS Soil Map Stream Order
County: Champaigne Township / City:	
MISCELLANEOUS	, <i>I</i>
Base Flow Conditions? (Y/N) Date of last precipitation: 10-20-11	Quantity: / - Z "
Photograph Information:	
Elevated Turbidity? (Y/N):/ Canopy (% open):/5	
Were samples collected for water chemistry? (Y/N):(Note lab sample no. or id. and	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) + pH (S.U.)	M Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (VN) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. ID number. Include appropriate field data sheets from the Prima	
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates	Voucher? (Y/N) Voucher? (Y/N) A
Comments Regarding Biology:	
	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM RE	ACH (This must be completed):
Include important landmarks and other features of interest for site evaluation and	
Shrub forest the Proposed Interconnect on the	- boulders
FLOW VIS	Wallagrs
To to	weely, delis

Mod Class II STREAM AAA

Primary Headwater Habitat Evaluation Form

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

SITE NAMER. STEP NUMBER RIVER BASIN DRAINAGE AREA (ms) LENGTH OF STREAM REACH (m) LAT. LONG. RIVER CODE RIVER MILE SCREEP BASE COMMENTS NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions 1. SUBSTRATE (estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE base (Max of 32). Add total number of significant substrate types Sound (Max of 3). Final medite score is sum of boxes A 8 8. PERCENT TYPE PERCENT POLICY STAPL (PS) 19 19 19 19 19 19 19 19 19 19 19 19 19			Makeus Marin and Marin S. J. San	The second building of the Co.					1000
LENGTH OF STREAM REACH (f)	SITE N	AME/LOCATION _	ENPOIO	UT to	BUCK CA	eK		<u> </u>	
LENGTH OF STREAM REACH (f)			SITE NUMBER	F	IVER BASIN		DR/	AINAGE AREA (mi²) 🕖	06
NOTE: Complete All Rems On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams"; for Instructions ITS MC_UNIVERSALE (Estimate percent of every type of substrate present. Check CANLY lwg predominant substrate ???#E boxes (Max of 32). Add total number of significant substrate types found (Max of 5). Final metric score is sum of boxes A.8. B. PERCENT TYPE BLDES. FASS 16 pse; BLDES. FASS	LENGT	H OF STREAM RE	ACU (A)	LAT	LONG	RIVER	CODE	RIVER MILE	· · · · · · · · · · · · · · · · · · ·
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions	DATE		CORER BMF	COMM	ENTS	·			
1. SUBSTRATE (Estimate percent of every type of substrate present. Check OM.Y More predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types bound (Max of 3). Final metric score is sum of boxes A & 8. Percent (Max of 32). Add total number of significant substrate types bound (Max of 4). Final metric score is sum of boxes A & 8. Percent (Max of 32). Add total number of significant substrate types bound (Max of 4). Final metric score is sum of boxes A & 8. Percent (Max of 32). Add total number of significant substrate types bound (Max of 4). Final metric score is sum of boxes A & 8. Percent (Max of 32). Add total number of significant substrate types bound (Max of 4). Final metric score is sum of boxes A & 8. Percent (Max of 4). Final metric score is sum of boxe	NOT	E: Complete All	Items On This Form		ield Evaluation	n Manual for Ol	hio's PHW	H Streams" for Instr	uctions
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & 8. PERCENT TYPE BIDDR SLASS [16 of 8] BIDDR SLASS [16 of	NOI	c. Complete Aii	the state of the s				market krist matter bedoorde k	:REVENDOUR VICEOURIESTEROUGO DO DE PRESENTACIONALES EN PRESENTACIO	KISCH DODGKKIII KIDOUOSKK
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY May predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT PERCENT	STRE	am chánnel	LA Elinone/nati	URALGHANNE	i Drecove	RED LAREGOV	ÆRING LU	RECENTIOR NO REC	VERY
(Max of 32), Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric Final State of the process o	MOD	FICATIONS							
(Max of 32), Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric Final State of the process o	0000000000000000								
Metric BLDR STABS [16 pis]	1.	SUBSTRATE (Es	timate percent of ever	y type of subs	rate present. Ch	eck ONLY two pre	edominant si	ubstrate TYPE boxes	HHEI
Point Poin		•				8). Finai menic sc	Ole is suiti u		Metric
COMMENTS State S				<u> RUCHI</u>		3 pt]		× 20	Points
DEDITION 115 15 15 15 15 15 15 15		BOULDER (S	256 mm) [16 pts] 🛮 👱	10		PACKWOODY D	EBRIS [3 pt	si	Substrate
GRAVEL 284 mm; (8 pts)		BEDROCK	16 pt]		1,0000000000000000000000000000000000000	200 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 . The Table	7.60	
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock		COBBLE (65-	256 mm) [12 pts] 🗸	170		ACCEPTANCE OF THE PARTY OF THE	brl	V 70	
Total of Percentages of Bidr Slabs, Boulder, Cobble, Bedrock		GRAVEL (2-0	a fentel		9000-0-004 J E. S	A THE PERSON NAMED IN COLUMN		** 	17
Bildr Slabs, Boulder, Cobble, Bedrock S SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 6f meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): S3D centimeter (20 pts)					37,027,000		TO STATE OF THE SECTION OF THE SECTI	(D)	
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 Sentineters (20 pe)		Total of Per Bide Stahs, Bould	rcentages of er. Cobble. Bedrock	5 (A	3			(B)	A + B
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): 3. Stern 10 on 115 pts] 3. Stern 10 on 115 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters) This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters) This information must also be completed RIPARIAN VIONE RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream'x RIPARIAN WIDTH R (Per Bank) Wide +10m Mature Forest, Wetland Moterate 5-10m Mature Forest, Wetland Moterate 5-10m Mature Forest, Wetland Moterate S-10m Residential, Park, New Field COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Sinuositry (Number of bends per 61 m (200 ft) of channel) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) Comments SINUOSITY (Number of bends per 61 m (200 ft) of channel) Comments SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel SINUOSITY (Numb	SCÓRE	OF TWO MOST F	REDOMINATE SUBST	TRATE TYPES:		OTAL NUMBER (OF SUBSTR	ATE TYPES:	
evaluation. Avoid plunge pools from road culverts or storm water pipes) 30 certifinates 720 fets]						1 motor (200 ff) a	valuation res	ach at the time of	Pool Denth
Some file for pick Some floor file pick Some floor	2.	Maximum Pool L	peptn (<i>measure trie ma</i> plunge pools from road	culverts or stor	<i>:pui wiuliii uie o</i> m water pipes)	(Check ONLY on	e box):		•
NOWATER OR MOIST CHANNEL TO PES	4	> 30 centimeters [20 pts] [[] [] [] [] [] [] [] [] [] [] [] [] [. □ 3≥5¢	m - 10 cm [15 pts	1		4.
COMMENTS						m [5 pts]: VATER OR MOIS	T CHANNEI	TO otsi	20
BANK FULL WIDTH (Measured as the average of 3.4 measurements) (Check ONLY one box): A 0 meters (3) 130 pts	<u> </u>	*> 10 .+22.5.CII.[2		- h				31/	
3.0 m 3.7 meters 13.7 str		COMMENTS	15"	12"		_ MAXIMUM POO	L DEPTH (c	entimeters):	
A Ometers (> 13) 130 pts Si 0 m (1.5 m	3.	BANK FULL WID	TH (Measured as the	average of 3-4	measurements)				Bankfull
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY TANOTE: River Left (L) and Right (R) as looking downstreams? RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) Wide >10m Mature Forest, Welland Moderate 5-10m Narrow <5m		> 4.0 meters (> 13"	[30 pts]			m + 1.5 m (> 3'3"			the second second
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Moderate 5-10m Immature Forest, Wetland Conservation Tillage Moderate 5-10m Residential, Park, New Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 3.5 STREAM GRADIENT ESTIMATE	H				29 514	m(s 3 a) la pis			Max-30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\text{NOTE}\$: River Left (L) and Right (R) as looking downstream\$\text{RIPARIAN WIDTH}\$ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m	<u></u> ت				₱ .				
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN		COMMENTS	5 2			_AVERAGE BAN	KFULL WID	TH (meters)	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN									
RIPARIAN WIDTH R (Per Bank)			TONE AND ELOOPE				aht (P) as lo	oking downstreams*	
L R (Per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Wide > 10m						rer Lent (L) and re	911 (11) 40 10	oning domination.	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial			ank)	LR (M	ost Predominant		L R		\$27.4
Moderate 5-10m		_	10m					•	
Narrow <5m		Modera	ate 5-10m) 1 1 1		Rub of Old	טט	Urban or Industrial	
None		.ПП Матом	, <5m		sidential, Park, N	ew Field			
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE			· •		nced Pasture		\Box . \Box		
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 0.5 STREAM GRADIENT ESTIMATE			ITS						
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 0.5 STREAM GRADIENT ESTIMATE		FI OW DE	CINE (At Time of Evel)	ustion) (Chack	· ONI V one hov):				
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None	•	<i>≂</i> ∨		dalibily (Gilech		Moist Channel,	isolated poo	ols, no flow (Intermittent)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None				s (Interstitial)		Dry channel, no	o water (Epl	nemeral)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None			ns	,					-
O 0.5 O 1.5 O 2.5 O >3 STREAM GRADIENT ESTIMATE		SINUOSIT		er 61 m (200 ft)	of channel) (Ch		x):	2.0	
STREAM GRADIENT ESTIMATE		, army	H /		님		님		
STREAM GRADIENT ESTIMATE Stream Gradient Est to Moderate				. 1.0			_	_	
		STREAM GRADI	ENT ESTIMATE Flat to Moderate	☐ Moderate	(2 ft/100 ft)	☐ Moderate to S	Severe	Severe (10 ft/10	O ft)

ADDITIONAL STREAM INFORMATION (This Information Mus	t Also be Completed):	ST	REAM ARA
QHEI PERFORMED? - Yes No QHEI Score	(If Yes, Atta	ach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name:		Distance from Evaluated	Stream
TOWH Name: Buck Creek		Distance from Evaluated	
DEWH Name:		Distance from Evaluated \$	
			· v 2
MAPPING: ATTACH COPIES OF MAPS, INCLUDING TO		•	
SGS Quadrangle Name:		Page: NRCS Soil M	
ounty:	Township / City:		· · · · · · · · · · · · · · · · · · ·
MISCELLANEOUS	•		
ase Flow Conditions? (Y/N): Date of last precipitation	: today	Quantity:	-
hotograph Information: Yes 7 7 V			
evated Turbidity? (Y/N): Canopy (% open):	100		
ere samples collected for water chemistry? (Y/N): (No	ote lab sample no. or id.	and attach results) Lab Numb	oer
eld Measures: Temp (°C) Dissolved Oxygen (mg/l)) pH (S.U.) _	Conductivity (µmho	s/cm)
the sampling reach representative of the stream (Y/N)	If not, please explain:		· · · · · · · · · · · · · · · · · · ·
dditional comments/description of pollution impacts:			
erformed? (Y/N): (If Yes, Record all observations. VID number. Include appropriate field ish Observed? (Y/N) Voucher? (Y/N) Salamand rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology:	eld data sheets from the Proceedings of the Proceedings of the Procedings of the Pro	imary Headwater Habitat Asse Voucher? (Y/N)	ssment Manual)
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DRAWING AND NARRATIVE DESCRIPTION Include important landmarks and other features of inter		•	
Include important landmarks and other features of inter	est for site evaluation a	nd a narrative description of in — goes wishing crossing for	f the stream's location
	Street	im - goes w	- comer
silt & handpan	No ex	isting crossing to	in the
Silt & humilian		0	WETLAND
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2011	601		<u> </u>
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in

Case No(s). 13-0360-EL-BGA

Summary: Application Appendix C - Surface Water Report (279-322) electronically filed by Mr. Michael J. Settineri on behalf of Buckeye Wind LLC