		-	
	0		

QHEI	Score:	[61	

Stream & Location: Mil Grede	Do of Parth field	RM: 10.13 Date: 18113114
Ein Socholon / RanMaich/2	Scorers Full Name & Affiliation:	Northeast Ohio Regional Sewer District
River Code: STO	DRET#: Lat./Long.: 41.44	66 181.5303 Office verified location □
1] SUBSTRATE Check ONLY Two substrate estimate % or note every ty BEST TYPES POOL RIFFLE O' BLDR /SLABS [10]	e TYPE BOXES; ype present THER TYPES HARDPAN [4] DETRITUS [3] MUCK [2] SILT [2] ARTIFICIAL [0] (Score natural substrates; ignore [2] Sludge from point-sources) (NAD 33 - GeCIMAI* 7 Check ORIGIN LIMESTONE [1] LIMESTONE [1] WETLANDS [0] WETLANDS [0] SANDSTONE [0] RIP/RAP [0] LACUSTURINE [0]	ONE (Or 2 & average) QUALITY HEAVY [-2] SILT NORMAL [0] FREE [1] EXTENSIVE [-2] Maximum NORMAL [0] NORMAL [0] NORMAL [0] NORMAL [0]
quality; 2-Moderate quality; 3-Highest quality in moderate or greater diameter log that is stable, well developed roots UNDERCUT BANKS [1] OVERHANGING VEGETATION [1]	0 to 3: 0-Absent; 1-Very small amounts or if more committee amounts, but not of highest quality or in small amounts amounts (e.g., very large boulders in deep or fast water wad in deep / fast water, or deep, well-defined, functiona POOLS > 70cm [2] POOLS > 70cm [2] AQUATIC MACROPHY BOULDERS [1] BOULDERS [1]	Check ONE (Or 2 & average) In pools. EXTENSIVE >75% [11] EXTENSIVE >75% [7] CTES [1] MODERATE 25-75% [7] SPARSE 5-<25% [3] BRIS [1] NEARLY ABSENT <5% [1] Cover Maximum
		20
3] CHANNEL MORPHOLOGY Check ON SINUOSITY DEVELOPMENT HIGH [4]	CHANNELIZATION NONE [6] RECOVERED [4] RECOVERING [3] RECENT OR NO RECOVERY [1] CONE Check ONE in each category for EACH BANK (CON WIDTH FLOOD PLAIN QUALIFIED [4] FOREST, SWAMP [3] 10-50m [3] SHRUB OR OLD FIELD [2] RESIDENTIAL, PARK, NEW FIELD	Channel Maximum 20 Or 2 per bank & average) ITY R CONSERVATION TILLAGE [1] SI URBAN OR INDUSTRIAL [0] O[1] MINING / CONSTRUCTION [0]
Comments	OPEN PASTURE, ROWCROP [0]	Indicate predominant land use(s) past 100m riparian. Riparian Maximum 10
	EL WIDTH Or 2 & average) RIFFLE WIDTH [2] RIFFLE WIDTH [1] VERY FAST [1] LIVER ST	Primary Contact Secondary Contact (circle one and comment on back) Pool /
of riffle-obligate species: RIFFLE DEPTH RUN DEP ☐ BEST AREAS > 10cm [2] ☐ MAXIMUM > 50	St areas must be large enough to support Check ONE (Or 2 & average). TH RIFFLE / RUN SUBSTRATE RIF Gorm [2] STABLE (e.g., Cobble, Boulder) [2] GORM [1] MOD. STABLE (e.g., Large Gravel) [1] UNSTABLE (e.g., Fine Gravel, Sand) [0]	
DRAINAGE AREA	OW - LOW [2-4] %POOL: RATE [6-10] VERY HIGH [10-6] %RUN:	%GLIDE: Gradient Maximum 10

Stream Drawing:	Check ATL that apply STAGE BOAT
glid	BJAESTHETICS NUISANCE ALGAE INVASIVE MACROPHYTES EXCESS TURBIDITY DISCOLORATION FOAM / SCUM OIL SHEEN TRASH / LITTER NUISANCE ODOR SLUDGE DEPOSITS CSOS/SSOS/OUTFALLS POOL: >100ft2 >3ft
Service A Servic	DJ MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG-SUCCESSION-OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING-BEDLOAD-STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE
Standage Sandage	Circle some & COMMENT
Sandas Proposition Company Sound	EJ ISSUES WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H ₂ 0 / TILE / H ₂ 0 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY
pool Stavel eloy	FJ MEA SUREMENTS x width x depth max. depth x bankfull width bankfull x depth W/ID ratio bankfull max. depth floodprone x² width entrench. ratio Legacy Tree:

ChicEPA

QHEI	Score:	(7	4/
		-	

Stream & Location:	Mill Eruh	UP S. M. lex Rd	RM: 8.30 Date	e: 1011314
Eric Soe hoken/Ro	n Haichle / Jun Braver S	Scorers Full Name & Affiliati		al Sewer District
River Code:	STORET #:	Lat./Long.:	303 181.5442	Office verified location
estim	k ONLY Two substrate TYPE BOXES ate % or note every type present POOL RIFFLE HARDPAN [4 K DETRITUS [3	S POOL RIFFLE DUMESTONE	HEAV	ALITY Y [-2] RATE [-1] Substrate
GRAVEL [7] SAND [6] BEDROCK [5]		[0]	[0] LODEON SI MODE E [0] I ODEON SI NORM	M1 1/4 6
15	2	COAL FINES	[-2]	<u>-</u>
21 INSTREAM COVE	R Indicate presence 0 to 3: 0-Abser	nt; 1-Very small amounts or if more co		IOUNT
quality; 3-Highest quality i	quality; 2-Moderate amounts, but n moderate or greater amounts (e.g., well developed rootwad in deep / fs [1] POOLS > 7	not of highest quality or in small amo, very large boulders in deep or fast vest water, or deep, well-defined, functives [2] OXBOWS, BACKW OS [1] AQUATIC MACRO	unts of highest vater, large ional pools. ATERS [1] MODERA PHYTES [1] M SPARSE	(Or 2 & average) VE >75% [11] TE 25-75% [7] 5-<25% [3] ABSENT <5% [1]
Comments			5	Maximum 13
3	4		0	20 2 1.
	HOLOGY Check ONE in each cate / ELOPMENT CHANNEL		1	
MODERATE [3] ⊠ G ☐ LOW [2] ☐ F	EXCELLENT [7] MONE [6] GOOD [5] RECOVERED CAIR [3] RECOVERING COOR [1] RECENT OR		≣ [2]	Channel
Comments 2.5	-	2		Maximum 20
River right looking downstres REROSION NONE / LITTLE [3] MODERATE [2] HEAVY / SEVERE [1]	RIPARIAN WIDTH WIDE > 50m [4] MODERATE 10-50m [3] NARROW 5-10m [2] VERY NARROW < 5m [1] NONE [0]	ONE in each category for EACH BAN FLOOD PLAIN QU FOREST, SWAMP [3] SHRUB OR OLD FIELD [2] RESIDENTIAL, PARK, NEW FI FENCED PASTURE [1] OPEN PASTURE, ROWCROF	ALITY CONSERVAT CONS	NSTRUCTION [0] It land use(s) Riparian Maximum
1,5	2,5		δ	10
MAXIMUM DEPTH Check ONE (ONLY!) > 1m [6] 0.7<1m [4] 0.4<0.7m [2] 0.2<0.4m [1] < 0.2m [0] Comments	CD RIFFLE / RUN QUALITY CHANNEL WIDTH Check ONE (Or 2 & average) POOL WIDTH > RIFFLE WIDTH POOL WIDTH = RIFFLE WIDTH POOL WIDTH < RIFFLE WIDTH	[2] ☐ TORRENTIAL [-1] ☐ SLOW [1] ☐ VERY FAST [1] ☐ INTER	Primal Second (circle one and (S [1]	on Potential ry Contact ary Contact d comment on back) Pool / Current Maximum 12
of riffle-obligate RIFFLE DEPTH	species: Chec RUN DEPTH RI	ist be large enough to supp k ONE (Or 2 & average). FFLE / RUN SUBSTRATE I ABLE (e.g., Cobble, Boulder) [2]	RIFFLE / RUN EMBED	O RIFFLE [metric=0] DEDNESS
■ BEST AREAS > 10cm [2 ■ BEST AREAS 5-10cm [1 ■ BEST AREAS < 5cm [metric=0 Comments] MAXIMUM < 50cm [1] MC	ABLE (e.g., Cobbie, Boulder) [2] DD. STABLE (e.g., Large Gravel) [1] STABLE (e.g., Fine Gravel, Sand) [0		oj Riffle / 6
		-	0	8
DRAINAGE AREA (3.90	MODERATE [6-10]		%GLIDE: %RIFFLE:	Gradient Maximum 10 06/16/06

	Stream Drawing:	AJ SAMP REACH Check Are! that apply METHOD STAGE BOAT St-sample pass-2nd WADE UP UP UP UP UP UP UP U
	or being or	AGE ple pass-2nd H Discoloration CH Comment RE: Reach consistency/ is reach typical of steam?, R Ple pass-2nd H Discoloration Cm Discoloration Coloration Coloratio
	Sound to sold the	INAGE PS ARTED ART
ah postanslot	Search Se	Circle some & COMMENT
Church	Collin Som Solar Collins Solar	Circle some & COMMENT A A Circle some & COMMENT HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H ₂ 0 / TILE / H ₂ 0 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY E PARCESS GIRECT A width To which Minax: de W/D rat To bankfur Dankfur Dankfur Dankfur Dankfur Legacy
Her	Deriver south seems of the seem	FJ MEASUREMENTS x width x depth max. depth bankfull x depth bankfull x depth bankfull max. depth W/ID ratio bankfull max. depth floodprone x² width entrench. ratio Legacy Tree:

downstream

ChioEPA

QHEI Score:	65

Stream & Location:	M.11 Creek	Kex Road	RM:_6.80 Date: 0 13 14
Braver, Mais	thie, Spenhlen	Scorers Full Name & Affiliation	: Northeast Ohio Regional Sewer District
River Code:	STORET #:_	Lat./ Long.: 4/ 4 2	3 3 18 1 . 5659 Office verified location
BEST TYPES BEST TYPES BLDR /SLABS [10] BOULDER [9] COBBLE [8] GRAVEL [7] SAND [6] BEDROCK [5]	HARDPA	YPES POOL RIFFLE ORIGIN AN [4] US [3] UTILLS [1] WETLANDS [0] HARDPAN [0] SANDSTONE [0] PARTITION OF THE POOL RIP/RAP [0]	ONE (Or 2 & average) QUALITY HEAVY [-2] MODERATE [-1] FREE [1] DETAILS IN MODERATE [-1] MODERATE [-1] MODERATE [-1] MODERATE [-1] MODERATE [-1] MODERATE [-1] NONE [1]
quality; 3-Highest quality in	quality; 2-Moderate amounts moderate or greater amounts well developed rootwad in dee [1]	bsent; 1-Very small amounts or if more comm, but not of highest quality or in small amount (e.g., very large boulders in deep or fast water p / fast water, or deep, well-defined, functions S > 70cm [2] OXBOWS, BACKWAT WADS [1] O AQUATIC MACROPH DERS [1] O LOGS OR WOODY DI	check ONE (Or 2 & average) al pools. EXTENSIVE >75% [11] MODERATE 25-75% [7] YTES [1] SPARSE 5-<25% [3]
3] CHANNEL MORPH	OLOGY Check ONE in each	category (Or 2 & average)	
☐ HIGH [4] ☐ EX ☐ MODERATE [3] ☐ G ☐ F/	CCELLENT [7] □ NONE [6 DOD [5] □ RECOVE AIR [3] □ RECOVE	RED [4] ☑ MODERATE [2	Channel Maximum 20
A] BANK EROSION A River right looking downstread EROSION DENONE / LITTLE [3] DENOME / LITTLE [4] DENOME / SEVERE [1] Comments	RIPARIAN WIDTH RIPARIAN WIDTH WIDE > 50m [4] MODERATE 10-50m [2] RIPARIAN S-10m [2]	FOREST, SWAMP [3] SHRUB OR OLD FIELD [2] RESIDENTIAL, PARK, NEW FIEL	LITY CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] D[1] MINING / CONSTRUCTION [0] Indicate predominant land use(s) past 100m riparian. Riparian Maximum
MAXIMUM DEPTH Check ONE (ONLY!) ☐ > 1m [6] ☐ 0.7	CHANNEL WIDT CHECK ONE (Or 2 & aver POOL WIDTH > RIFFLE WII POOL WIDTH = RIFFLE WII POOL WIDTH < RIFFLE WII	H CURRENT VELOCIT age) Check ALL that apply DTH [2] TORRENTIAL [-1] SLOW [1] DTH [1] VERY FAST [1] INTERST	Primary Contact Secondary Contact (circle one and comment on back) TTENT [-2] Inffles. Pool / Current Maximum
	SPECIES: RUN DEPTH MAXIMUM > 50cm [2] MAXIMUM < 50cm [1] MAXIMUM < 50cm [1]	must be large enough to support Check ONE (<i>Or</i> 2 & average). RIFFLE / RUN SUBSTRATE RIF ASTABLE (e.g., Cobbie, Boulder) [2] MOD. STABLE (e.g., Large Gravei) [1] UNSTABLE (e.g., Fine Gravel, Sand) [0]	t a population NO RIFFLE [metric=0] NONE [2] LOW [1] MODERATE [0] Riffle / Run Maximum Maximum
6] GRADIENT (75.64 DRAINAGE AREA	ft/mi)	7) %GLIDE: Gradient Maximum 10

K. ees .				
	55%-485% 30%-455% 10%-<30% -10%-CLOSED Stream Dra	0.2 Km 1s 0.15 Km 0.15 Km 0.12	OTHER DISTANCE	U X
Service Commission of the Comm	cj RECREA	CLARITY 1stsample pass 2nd < 20 cm	D NORMAL D	REACH ACL that apply STAGE 1st-sample pass-2nd HIGH
And Sent Particular	☐ SLUDGE DEPOSITS ☐ CSOs/SSOS/OUTFALLS 47/ON AREA DEPTH POOL: ☐>100ft2 ☐>3ft	BJAESTHETICS □ NUISANCE ALGAE □ INVASIVE MACROPHYTES □ EXCESS TURBIDITY □ DISCOLORATION □ FOAM / SCUM □ OIL SHEEN □ TRASH / LITTER □ NUISANCE ODOR		Comment NE. Negati Consistency is readility production steams,
Soulder Book	ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE	PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG-SUCCESSION-OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING-BEDLOAD-STABLE		
Grand Control		Circle some & COMMENT		Chaired - Illighed, Cha
200000 E	ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H ₂ 0 / TILE / H ₂ 0 TABLE		none Observed - Illieried, Omen Gariphing Observations, Concerns, Access direct
Coldu Coldu Coldus (SSS)	floodprone x* width entrench. ratio Legacy Tree:	x width x depth max. depth x bankfull width bankfull x depth W/ID ratio bankfull max. depth		Cess ciliect

	 34
•	74

QHEI Score:	
-------------	--



Stream & Location: Mil Cuh		Up of Falls	RM: 3,15 Date	9: 10 1 1 71 1 4
	hlen Scorers F	Full Name & Affiliation:	Northeast Ohio Regiona	I Sewer District
	UREI #:	Lat./Long.: 4 1.4 4 2	2/81.6216	Office verified location
BOULDER [9] COBBLE [8] GRAVEL [7] SAND [6] BEDROCK [5] NUMBER OF BEST TYPES: 4 or m	type present OTHER TYPES HARDPAN [4] DETRITUS [3] MUCK [2] SILT [2] ARTIFICIAL [0] (Score natural substrates; ore [2] sludge from point-so	ORIGIN LIMESTONE [1] WTILLS [1] WETLANDS [0] HARDPAN [0] SANDSTONE [0] ignore RIP/RAP [0] Urces) LACUSTURINE [0]; SHALE [-1] COAL FINES [-2]	SILT MODES SILT MODES NORMA FREE EXTEN MODES NONE	LLITY [-2] RATE [-1] Substrate
diameter log that is stable, well developed roo UNDERCUT BANKS [1] OVERHANGING VEGETATION [1] SHALLOWS (IN SLOW WATER) [1] ROOTMATS [1] Comments	the amounts, but not or higher amounts (e.g., very large twad in deep / fast water, or POOLS > 70cm [2]	st quality or in small amounts of boulders in deep or fast water, deep, well-defined, functional post of the control of the co	of highest large Check ONE (cools.	OUNT Or 2 & average) E > 75% [11] E 25-75% [7] <25% [3] BSENT <5% [1] Cover Maximum 20
☐ MODERATE [3] ☐ GOOD [6] ☐ LOW [2] ☐ FAIR [3] ☐ MONE [1] ☐ POOR [1] ☐ Comments	CHANNELIZATION NONE [6] RECOVERED [4] RECOVERING [3] RECENT OR NO RECOVE	STABILITY M HIGH [3] MODERATE [2] LOW [1] ERY [1]		Channel Maximum 20
4] BANK EROSION AND RIPARIAN ARIVER right looking downstream RIPARIAN RIPAR	N WIDTH [4]	category for EACH BANK (Or 2 FLOOD PLAIN QUALITY ST, SWAMP [3] B OR OLD FIELD [2] ENTIAL, PARK, NEW FIELD [1 ED PASTURE [1] PASTURE, ROWCROP [0]	R CONSERVATIO UN URBAN OR INI	DUSTRIAL [0] STRUCTION [0]
5] POOL / GLIDE AND RIFFLE / RUN MAXIMUM DEPTH Check ONE (ONLY!) > 1m [6]	EL WIDTH or 2 & average) EFFLE WIDTH [2] □ TORF EFFLE WIDTH [1] □ VERY EFFLE WIDTH [0] □ FAST MODI Indi	ERATE [1] DEDDIES [1] cate for reach - pools and riffles	NT [-2]	Contact y Contact
Indicate for functional riffles; Bes of riffle-obligate species: RIFFLE DEPTH / RUN DEPT BEST AREAS > 10cm [2] ☐ MAXIMUM > 50 ☐ BEST AREAS 5-10cm [1] ☐ MAXIMUM < 50 ☐ BEST AREAS < 5cm [metric=0] Comments	Check ONE (Or 2 & Check ONE (O	& average). N SUBSTRATE RIFFLI	Dopulation NO F RUN EMBEDDE NONE [2] LOW [1] MODERATE [0] EXTENSIVE [-1]	Riffle /
DRAINAGE AREA MODERA	OW - LOW [2-4] NTE [6-10] ERY HIGH [10-6]			Gradient Aaximum 10

Stream Drawing:	AJ SAMPI Check with METHOD BOAT WADE L. LINE O.5 Km O.2 Km O.15 Km O.15 Km O.15 Km O.15 Km O.15 Km O.16 Km O.2 Km O.17 Km O.18 Km O.18 Km O.18 Km O.19 Km O.19 Km O.10 Km O.
ert Q	REACH nat apply STAGE STAGE st-sample pass- 2nd UP UP UP UNORMAL UNORM
Stant South	BJAESTHETICS NUISANCE ALGAE INVASIVE MACROPHYTES CATION RECONSTRUCTOR BJAESTHETICS NUISANCE ALGAE ACTIVE / HISTORIC / BOT YOUNG-SUCCESSION YOUNG-SUCCESSION YOUNG-SUCCESSION YOUNG-SUCCESSION YOUNG-SUCCESSION YOUNG-SUCCESSION YOUNG-BED / ONE SIDE RELOCATED / CUTOI MOVING-BEDLOAD-ST. ARMOURED / BESICC. IMPOUNDED / DESICC. IMPOUNDED / DESICC. FLOOD CONTROL / DRA
Boyler Boyler, Prige	INAC PS FFS PS
Scottle Day	Circle some & COMMENT
Jan	Circle some & COMMENT WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H ₂ 0 / TILE / H ₂ 0 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY FIGURE STAGNANT PARK / GOLF / LAWN / HOME Legacy Services viricing E JISSUES X width X deptt CONTAMINATED / LANDFILL MAX. d. E MACH TOTAL TO
Stab Stab 80 g	FJ MEASUREMENTS x width x depth max. depth bankfull x depth bankfull max. depth WID ratio bankfull max. depth floodprone x² width entrench. ratio Legacy Tree:

Chera	Qualitative Habitat Evaluand Use Assessment Fi	/ILLI	core: (87,5)
Stream & Location: M.)	ech 10 DSStalls	RM:02.25L	Date: 10127114
Ron Maichle / Enie Soo	Scorers Full Name	e & Affiliation: Northeast Ohio Reg	
River Code:	STORET #: Lat./ Lor	79: 4/1 UNE 1 191 172	Office verified location
BEST TYPES BLDR /SLABS [10] COBBLE [8] GRAVEL [7] SAND [6] BEDROCK [5] NUMBER OF BEST TYPES:	e substrate TYPE BOXES; le every type present OTHER TYPES HARDPAN [4] DETRITUS [3] MUCK [2] ARTIFICIAL [0] (Score natural substrates; ignore [2] sludge from point-sources) 3 or less [0]	Check ONE (Or 2 & average ORIGIN LIMESTONE [1]	QUALITY AVY [-2] DDERATE [-1] Substrate RMAL [0]
quality: 2	[1] O ROOTWADS [1] O AQU	or in small amounts of highest check Condens of fast water, large check Condens of functional pools. OWS, BACKWATERS [1] SPAR	AMOUNT ONE (Or 2 & average) NSIVE >75% [11] ERATE 25-75% [7] SE 5-<25% [3] LY ABSENT <5% [1] Cover Maximum 20
3] CHANNEL MORPHOLOGY SINUOSITY DEVELOPME HIGH [4]	[7] NONE [6] [7] RECOVERED [4]	STABILITY HIGH [3] MODERATE [2] LOW [1]	Channel Maximum 20
River right looking downstream RI EROSION RI NONE / LITTLE [3] MODERATE [2] NA	DE > 50m [4]	PLAIN QUALITY MP [3]	VATION TILLAGE [1] OR INDUSTRIAL [0] CONSTRUCTION [0] inant land use(s)
Check ONE (ONLY!) Check □ > 1m [6] □ POOL \ □ 0.7-<1m [4] □ POOL \	HANNEL WIDTH ck ONE (Or 2 & average) MIDTH > RIFFLE WIDTH [2] VIDTH = RIFFLE WIDTH [1] VERY FAST [1] WIDTH < RIFFLE WIDTH [0]	ALL that apply [-1] SLOW [1] 1] INTERSTITIAL [-1] INTERMITTENT [-2]	eation Potential mary Contact and Contact le and comment on back) Pool / Current Maximum 12
of riffle-obligate species: RIFFLE DEPTH RU ∭BEST AREAS > 10cm [2] ☐ MAX	iles; Best areas must be large enou Check ONE (Or 2 & averag IN DEPTH RIFFLE / RUN SUB: MUM > 50cm [2] ☐ STABLE (e.g., Cobbie, E MUM < 50cm [1] ☐ MOD. STABLE (e.g., Fine G	e). STRATE RIFFLE / RUN EMB Boulder) [2]	NO RIFFLE [metric=0]

6] GRADIENT (しみ) ft/mi) ロ VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6]

%POOL: %RUN:

%GLIDE: %RIFFLE:

Gradient Maximum 10

	-	
•	7	

QHEI	Score:	64,	5
~···	000.0.		-

Stream & Location:	Mill Co	eck	UP1 W	sur Rel	RM:_ (.70 Date:	101/31/4
Eric Souhnlan / Ron	, Maichle	Sc	orers Full Nan	ne & Affiliation:			
River Code:		STORET #:	Lat./ Lo	ong.: 41 451	7 7 /8 / .		Office verified location
DEST TYPES	k ONLY Two subs ate % or note eve POOL RIFFLE	trate TYPE BOXES; ery type present OTHER TYPES	POOL RIFFLE	Check C	ONE (Or 2 &	average) QUAL	
□□ BLDR/SLABS [10] □□ BOULDER [9] □□ COBBLE [8] □□ GRAVEL [7] □□ SAND [6] □□ BEDROCK [5]	K K K K K	HARDPAN [4] DETRITUS [3] MUCK [2] SILT [2] ARTIFICIAL [0] (Score natural s	DK D	CIMESTONE [1] CILLS [1] WETLANDS [0] HARDPAN [0] SANDSTONE [0] RIP/RAP [0]	SILT	HEAVY [- MODERA NORMAL FREE [1] EXTENSI MODERA NORMAL NONE [1]	TE [-1] Substrate [0]
NUMBER OF BEST		more [2] sludge from less [0]] LACUSTURINE [0]] SHALE [-1]] COAL FINES [-2]	· · · · · · · · · · · · · · · · · · ·	S NORMAL NONE [1]	[0] 20
2] INSTREAM COVE	R Indicate prese	nce 0 to 3: 0-Absent:	1-Verv small amou	nts or if more commo	n of margina	AMOU	INT
quality; 3-Highest quality i diameter log that is stable UNDERCUT BANK: OVERHANGING VE J SHALLOWS (IN SL	quality; 2-Mod in moderate or gre , well developed i S [1] EGETATION [1]	erate amounts, but no eater amounts (e.g., v	ot of highest quality ery large boulders water, or deep, we cm [2] OXI [1] AQ	or in small amounts in deep or fast water	of highest ; large pools. [RS [1] [2] TES [1]	Check ONE (O) EXTENSIVE MODERATE SPARSE 5-4	r 2 & average) >75% [11] 25-75% [7] 25% [3] BENT <5% [1]
Comments	7474	3				5 1	Cover / Z
3				1	14-	>	20 28
3] CHANNEL MORPH SINUOSITY DEV	<i>IOLOGY</i> Check /ELOPMENT	ONE in each catego		STABILITY			
☐ HIGH [4] ☐ E ☑ MODERATE [3] ☒ G ☐ LOW [2] ☑ F ☐ NONE [1] ☐ P	EXCELLENT [7] GOOD [5] FAIR [3] POOR [1]	☐ NONE [6] ☐ RECOVERED [4 ☑ RECOVERING	1]	☐ HIGH [3] ☑ MODERATE [2] ☐ LOW [1]			Channel
Comments 3	4	3		2		Λ	Maximum 20
4] BANK EROSION A River right looking downstrea EROSION NONE / LITTLE [3] MODERATE [2] HEAVY / SEVERE [1]	RIPAR RIPAR	8IAN WIDTH 50m [4] ATE 10-50m [3] W 5-10m [2] ARROW < 5m [1]	FLOOI FOREST, SWA SHRUB OR O RESIDENTIAL FENCED PAS	D PLAIN QUALI' AMP [3] LD FIELD [2] , PARK, NEW FIELD	TY R C C C C C C C C C C C C C C C C C C	ONSERVATION RBAN OR IND INING / CONS predominant la	USTRIAL [0] TRUCTION [0]
Comments	1	, 5		0,5			10 3.5 43.
5] POOL / GLIDE AN. MAXIMUM DEPTH Check ONE (ONLY!) \$\(\text{S} \) > 1m [6] \$\(\text{O} \) 0.7 \le 1m [4] \$\(\text{O} \) 0.2 \le 0.4m [1] \$\(\text{C} \) < 0.2m [0] Comments	CHAN Check ON POOL WIDTH POOL WIDTH	UN QUALITY INEL WIDTH E (Or 2 & average) I > RIFFLE WIDTH [2] I = RIFFLE WIDTH [1] I < RIFFLE WIDTH [0]	Chec TORRENTIA VERY FAST Signal Fast [1] MODERATE	☐ INTERMIT	FIAL [-1] FENT [-2]	Recreation Primary Secondary (circle one and cor	Contact Contact
Indicate for function of riffle-obligate services RIFFLE DEPTH	species: RUN D I 図MAXIMUM	Check (EPTH RIFF > 50cm [2] ⊠ STAE	ONE (Or 2 & avera FLE / RUN SUE BLE (e.g., Cobble,	ugh to support a ge). SSTRATE RIFF Boulder) [2]	LE / RUN	ION NO R	IFFLE [metric=0]
☐ BEST AREAS 5-10cm [1] ☐ BEST AREAS < 5cm [metric=0] Comments] MAXIMUM	< 50cm [1] MOD	STABLE (e.g., La TABLE (e.g., Fine 0	rge Gravel) [1]	□ LO		Riffle / 5
O O I I I I I I I I I I I I I I I I I I	•	2	1			0	Maximum

Stream Drawing:	AJ SAMP! REACH Check Act that apply METHOD STAGE BOAT 1st -sample pass- 2nd 1st -sample pass- 2
Cather French Control of the Control	BJ AESTHETICS NUISANCE ALGAE INVASIVE MACROPHYTES PUBLIC / PRIVATE / BOT DISCOLORATION OIL SHEEN TRASH / LITTER NUISANCE ODOR NUISANCE ODOR SLUDGE DEPOSITS CSOs/SSOs/OUTFALLS ARMOURED / SCOURE / POOL: >100ft² >3ft FLOOD CONTROL / DRA
Sand Sand Sand Sand Sand Sand Sand Sand	INACTE PS
Soca 1016	Circle some & COMMENT NA O IA B GE
Copple sand	e & COMMENT EJ ISSUES WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPS-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H₂0 / TILE / H₂0 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY ### MEZ ### Width Dankfu
January January Constitution of State o	F] MEASUREMENTS x width x depth max. depth bankfull x depth bankfull max. depth bankfull max. depth hoodprone x² width entrench. ratio Legacy Tree:

A		B	A
	•		4

QHEI	Score:	6	6	

Stream & Location: M. 11	Lreek Ut	Lland Rd RM:	Q. 1 Z Date: 101 131 14
Eric Socholan / Ron Maic		Name & Affiliation: Northeas	st Ohio Regional Sewer District
River Code:	STORET #:La	t./Long.: 41. 4179 181	0.00
1] SUBSTRATE Check ONLY TV	o substrate TYPE BOXES;		
DECT TYPES	ote every type present OTHER TYPES	Check ONE (Or 2	QUALITY
BEST TIPES POOL RIF	FLE HARDPAN [4] POOL RIFF	LE LIMESTONE [1]	HEAVY [-2]
□□ BOULDER [9] □□□□□	∠ □ □ DETRITUS [3]	TILLS [1] SILT	MODERATE [-1] Substrate
☐ ☐ COBBLE [8] =	∠ □ □ MUCK [2]	□ WETLANDS [0] UNDER COLUMN [0]	LI NORMAL [0]
	ARTIFICIAL [0]	SANDSTONE [0]	FREE [1]
□ □ BEDROCK [5]	(Score natural substrates; ign	ore RIP/RAP [0]	DEXTENSIVE [-2] Moderate [-1] Maximum 20 NONE [1]
	4 or more [2] sludge from point-source 3 or less [0]	es) ☐ LACUSTURINE [0] █ ☐ ☐ SHALE [-1]	NONE [4]
Comments		COAL FINES [-2]	I NONE [1]
18	2	7.37.312	- 2
2] INSTREAM COVER Indicate	presence 0 to 3: 0-Absent; 1-Very small 2-Moderate amounts, but not of highest of	amounts or if more common of marg	inal AMOUNT
quality: 3-Highest quality in moderat	e or greater amounts (e.g., very large bou	ilders in deep or fast water, large	Check ONE (Or 2 & average)
UNDERCUT BANKS [1]	loped rootwad in deep / fast water, or deep POOLS > 70cm [2]	ep, well-defined, functional pools. — OXBOWS, BACKWATERS [1]	☐ EXTENSIVE >75% [11]☐ MODERATE 26-75% [7]
D OVERHANGING VEGETATIO	N [1] 6 ROOTWADS [1]	_ AQUATIC MACROPHYTES [1]	SPARSE 5-25% [3]
SHALLOWS (IN SLOW WATE	R) [1] BOULDERS [1]	LOGS OR WOODY DEBRIS [1]	☐ NEARLY ABSENT <5% [1]
ROOTMATS [1]			Cover
Comments			3 Maximum 0 2 2
31 CHANNEL MORRHOLOGY	Check ONE in each category (Or 2 & av	(orago)	
SINUOSITY DEVELOPM		STABILITY	
☐ HIGH [4] ☐ EXCELLEN		☐ HIGH [3]	
MODERATE [3] GOOD [5]	☐ RECOVERED [4]	MODERATE [2]	
☐ LOW [2] ☐ FAIR [3] ☐ POOR [1]	☐ RECOVERING [3] ☐ RECENT OR NO RECOVER	☑ LOW [1]	Channel
Comments	L RECENT ON NO RECOVER	4 [4]	Maximum 14,5
3	6	1.5	20
	ARIAN ZONE Check ONE in each ca		nk & average)
EDOGION L K	LR	LOOD PLAIN QUALITY $_{L^-R}$	
	'IDE > 50m [4] □ FORES1 ODERATE 10-50m [3] □ □ SHRUB	r, swamp [3]	
		OR OLD FIELD [2] 🔀 🛭 NTIAL, PARK, NEW FIELD [1] 🗆 🗀	URBAN OR INDUSTRIAL [0] MINING / CONSTRUCTION [0]
☐ ☐ HEAVY / SEVERE [1] ☐ ☐ V	ERY NARROW < 5m [1] FENCE	PASTURE [1] Indica	ate predominant land use(s)
	ONE [0] \square OPEN P		100m riparian. Riparian
Comments	2 -	0 5	Maximum 10 42.5
5] POOL / GLIDE AND RIFFL	E / PUN OUALITY	0,5	
		URRENT VELOCITY	Recreation Potential
Check ONE (ONLY!) Che	eck ONE (Or 2 & average)	Check ALL that apply	Primary Contact
		NTIAL [-1] SLOW [1]	Secondary Contact
	WIDTH = RIFFLE WIDTH [1] □ VERY WIDTH < RIFFLE WIDTH [0] □ FAST [(circle one and comment on back)
☐ 0.2<0.4m [1]	MODE	RATE [1] DEDDIES [1]	Pool /
□ < 0.2m [0]	Indica	ate for reach - pools and riffles.	Current 9 Maximum
Comments	٥	3	12
	ffles; Best areas must be large		ation GNO BIEST 5 (marting)
of riffle-obligate species			NO RIFFLE [metric=0]
· · · · · · · · · · · · · · · · · · ·	UN DEPTH RIFFLE / RUN (IMUM > 50cm [2] STABLE (e.g., Co		JN EMBEDDEDNESS NONE [2]
BEST AREAS 5-10cm [1] MA	KIMUM < 50cm [1] ⊠ MOD. STABLE (e.g., Co	.g., Large Gravel) [1]	NONE [2] LOW [1]
☐ BEST AREAS < 5cm		Fine Gravel, Sand) [0]	MODERATE IOI Riffle /
[metric=0] Comments	2		EXTENSIVE [-1] Run 4,5
OLODADIENT IA	U	. 3	
6] GRADIENT (10, 20 ft/ml)	VERY LOW - LOW [2-4]	%POOL:() %GLID	E:() Gradient
DRAINAGE AREA	MODERATE [6-10]	%RUN: %RIFFL	Maximum 6
DRAINAGE AREA		=	

506612 9-512 1:11	d bank)	notweed	Drawi	□ 0.15 Km □ < 20 cm □ 20.40 cm □ 0.12 Km □ 20.40 cm □ 20.40 cm □ 70 cm/ CTB □ 70 cm/ CTB □ SECCHI DEPTH □ CANOPY 1st cm □ 85%-65% 2nd cm cm 20%-55% 2nd cm cm 20%-55% 2nd	m	
Japanes and	Sand	credict power of the standard	ng:	INVISANCE ALGAE INVASIVE MACROPHYTES EXCESS TURBIDITY DISCOLORATION FOAM / SCUM FOAM / SCUM OIL SHEEN TRASH / LITTER NUISANCE ODOR SLUDGE DEPOSITS CSOS/SSOS/OUTFALLS		
		Sanita Primary 2 april	FLOOD CONTROL / DRAINAGE	ACTIVE / HISTORIC / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG-SUCCESSION-OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING-BEDLOAD-STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED	DJ MAINTENANCE	
	the shubs	THE SECRET	2600		Circle some & COMMENT	
	10.15 cobbles!	offin - broke - coloble consul	ATMOSPHERE / DATA PAUCITY	WWIP / CSO / NPJES / INJUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H ₂ 0 / TILE / H ₂ 0 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME	EJ ISSUES	
30/1	Softparing of the sand	p run		x width x depth max. depth x bankfull width bankfull x depth W/D ratio bankfull max. depth floodprone x² width entrench. ratio	F] MEASUREMENTS	

D_