

Stream & Location: Cuyahoga River Upstream of Mill Creek **RM:** 1.95 **Date:** 08/03/18

Brauer **Scorers Full Name & Affiliation:** Northeast Ohio Regional Sewer District
River Code: - - - **STORET #:** - - - **Lat./ Long.:** 41.4123 181.6364 (NAD 83 - decimal) **Office verified location**

1] SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present

<p>BEST TYPES</p> <p><input type="checkbox"/> BLDR/SLABS [10]</p> <p><input type="checkbox"/> BOULDER [9]</p> <p><input type="checkbox"/> COBBLE [8]</p> <p><input type="checkbox"/> GRAVEL [7]</p> <p><input type="checkbox"/> SAND [6]</p> <p><input type="checkbox"/> BEDROCK [5]</p>	<p>POOL RIFFLE</p> <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>OTHER TYPES</p> <p><input type="checkbox"/> HARDPAN [4]</p> <p><input type="checkbox"/> DETRITUS [3]</p> <p><input type="checkbox"/> MUCK [2]</p> <p><input type="checkbox"/> SILT [2]</p> <p><input type="checkbox"/> ARTIFICIAL [0]</p>	<p>POOL RIFFLE</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>ORIGIN</p> <p><input type="checkbox"/> LIMESTONE [1]</p> <p><input type="checkbox"/> TILLS [1]</p> <p><input type="checkbox"/> WETLANDS [0]</p> <p><input type="checkbox"/> HARDPAN [0]</p> <p><input type="checkbox"/> SANDSTONE [0]</p> <p><input type="checkbox"/> RIPRAP [0]</p> <p><input type="checkbox"/> LAGUSTURINE [0]</p> <p><input type="checkbox"/> SHALE [1]</p> <p><input type="checkbox"/> COAL FINES [2]</p>	<p>QUALITY</p> <p><input type="checkbox"/> HEAVY [2]</p> <p><input type="checkbox"/> MODERATE [1-1]</p> <p><input type="checkbox"/> NORMAL [0]</p> <p><input type="checkbox"/> FREE [1]</p> <p><input type="checkbox"/> EXTENSIVE [2]</p> <p><input type="checkbox"/> MODERATE [4]</p> <p><input type="checkbox"/> NORMAL [0]</p> <p><input type="checkbox"/> NONE [1]</p>	<p>SILT</p> <p>EMBEDDEDNESS</p>	<div style="border: 1px solid black; border-radius: 15px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> 14 </div> <p>Substrate Maximum 20</p>
---	--	---	---	---	---	---	--

NUMBER OF BEST TYPES: 4 or more [2] 3 or less [0]

Comments

2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.)

UNDERCUT BANKS [1]	POOLS > 70cm [2]	OXBOWS, BACKWATERS [1]	AMOUNT Check ONE (Or 2 & average)
<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> EXTENSIVE >75% [11]
OVERHANGING VEGETATION [1]	ROOTWADS [1]	AQUATIC MACROPHYTES [1]	<input type="checkbox"/> MODERATE 25-75% [7]
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> SPARSE 5-<25% [3]
SHALLOWS (IN SLOW WATER) [1]	BOULDERS [1]	LOGS OR WOODY DEBRIS [1]	<input type="checkbox"/> NEARLY ABSENT <5% [1]
<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	
ROOTMATS [1]			
<input type="checkbox"/> 1			

Comments

Cover
Maximum 20

13

3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average)

SINUOSITY	DEVELOPMENT	CHANNELIZATION	STABILITY
<input type="checkbox"/> HIGH [4]	<input type="checkbox"/> EXCELLENT [7]	<input type="checkbox"/> NONE [6]	<input type="checkbox"/> HIGH [3]
<input type="checkbox"/> MODERATE [3]	<input type="checkbox"/> GOOD [5]	<input type="checkbox"/> RECOVERED [4]	<input type="checkbox"/> MODERATE [2]
<input type="checkbox"/> LOW [2]	<input type="checkbox"/> FAIR [3]	<input type="checkbox"/> RECOVERING [3]	<input type="checkbox"/> LOW [1]
<input type="checkbox"/> NONE [1]	<input type="checkbox"/> POOR [1]	<input type="checkbox"/> REGENT OR NO RECOVERY [1]	

Comments

Channel
Maximum 20

11.5

4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average)

River right looking downstream

EROSION	RIPARIAN WIDTH	FLOOD PLAIN QUALITY	
<input type="checkbox"/> NONE / LITTLE [3]	<input type="checkbox"/> WIDE > 50m [4]	<input type="checkbox"/> FOREST, SWAMP [3]	<input type="checkbox"/> CONSERVATION TILLAGE [1]
<input type="checkbox"/> MODERATE [2]	<input type="checkbox"/> MODERATE 10-50m [3]	<input type="checkbox"/> SHRUB OR OLD FIELD [2]	<input type="checkbox"/> URBAN OR INDUSTRIAL [0]
<input type="checkbox"/> HEAVY / SEVERE [1]	<input type="checkbox"/> NARROW 5-10m [2]	<input type="checkbox"/> RESIDENTIAL, PARK, NEW FIELD [1]	<input type="checkbox"/> MINING / CONSTRUCTION [0]
	<input type="checkbox"/> VERY NARROW < 5m [1]	<input type="checkbox"/> FENCED PASTURE [1]	
	<input type="checkbox"/> NONE [0]	<input type="checkbox"/> OPEN PASTURE, ROWCROP [0]	

Comments 2.5 3 1.5 0.5

Indicate predominant land use(s) past 100m riparian.

Riparian
Maximum 10

6.5

5] POOL / GLIDE AND RIFFLE / RUN QUALITY

MAXIMUM DEPTH Check ONE (ONLY)	CHANNEL WIDTH Check ONE (Or 2 & average)	CURRENT VELOCITY Check ALL that apply	Recreation-Potential
<input type="checkbox"/> > 1m [8]	<input type="checkbox"/> POOL WIDTH > RIFFLE WIDTH [2]	<input type="checkbox"/> TORRENTIAL [4]	<p>Primary Contact</p> <p>Secondary Contact</p> <p><small>(circle one and comment on back)</small></p>
<input type="checkbox"/> 0.7-<1m [4]	<input type="checkbox"/> POOL WIDTH = RIFFLE WIDTH [1]	<input type="checkbox"/> VERY FAST [1]	
<input type="checkbox"/> 0.4-<0.7m [2]	<input type="checkbox"/> POOL WIDTH < RIFFLE WIDTH [0]	<input type="checkbox"/> FAST [1]	
<input type="checkbox"/> 0.2-<0.4m [1]		<input type="checkbox"/> MODERATE [1]	
<input type="checkbox"/> < 0.2m [0]		<input type="checkbox"/> SLOW [1]	

Comments

Pool / Current
Maximum 12

12

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:

RIFFLE DEPTH	RUN DEPTH	RIFFLE / RUN SUBSTRATE	RIFFLE / RUN EMBEDDEDNESS
<input type="checkbox"/> BEST AREAS > 10cm [2]	<input type="checkbox"/> MAXIMUM > 50cm [2]	<input type="checkbox"/> STABLE (e.g., Cobble, Boulder) [2]	<input type="checkbox"/> NONE [2]
<input type="checkbox"/> BEST AREAS 5-10cm [1]	<input type="checkbox"/> MAXIMUM < 50cm [1]	<input type="checkbox"/> MOD. STABLE (e.g., Large Gravel) [1]	<input type="checkbox"/> LOW [1]
<input type="checkbox"/> BEST AREAS < 5cm [metric=0]		<input type="checkbox"/> UNSTABLE (e.g., Fine Gravel, Sand) [0]	<input type="checkbox"/> MODERATE [0]
			<input type="checkbox"/> EXTENSIVE [1-4]

Comments

Riffle / Run
Maximum 8

5.5

6] GRADIENT (6.93 ft/mi) VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6]

DRAINAGE AREA (709 mi²)

%POOL: **%GLIDE:**

%RUN: **%RIFFLE:**

Gradient
Maximum 10

10

Comment RE: Reach consistency/Is reach typical of stream?, Recreation/Observed - Inferred, Other/Sampling observations, Concerns, Access directions, etc.

AJ SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
- WADE
- L. LINE
- OTHER

STAGE

- 1st - sample pass - 2nd
- HIGH
 - UP
 - NORMAL
 - LOW
 - DRY

DISTANCE

- 0.5 Km
- 0.2 Km
- 0.15 Km
- 0.12 Km
- OTHER

CLARITY

- < 20 cm
- 20-40 cm
- 40-70 cm
- > 70 cm / C/P/B
- SECCHI DEPTH

meters

CANOPY

- > 85% - OPEN
- 65% - 85%
- 35% - 65%
- 10% - 35%
- < 10% - CLOSED

CJ RECREATION

AREA DEPTH
POOL: > 100ft² > 3ft

BJ AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSO / SSOs / OUTFALLS

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

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 H₂O / TILE / H₂O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF / LAWN / HOME
- ATMOSPHERE / DATA PAUCITY

FJ MEASUREMENTS

- width
- depth
- max. depth
- bankfull width
- bankfull depth
- W/D ratio
- bankfull max. depth
- floodplain width
- entrench. ratio

Legacy Tree:

Stream Drawing:

