

**Stream & Location:** Cuyahoga River D.S. of Mill Creek RM: 1130 Date: 08/03/18

**Scorers Full Name & Affiliation:** Northeast Ohio Regional Sewer District

**River Code:** - **STORET #:** - **Lat./ Long.:** 41.4179 81.6946 **Office verified location**

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

<p><b>BEST TYPES</b></p> <input type="checkbox"/> BLDR / SLABS [10] <input type="checkbox"/> BOULDER [9] <input type="checkbox"/> COBBLE [8] <input type="checkbox"/> GRAVEL [7] <input checked="" type="checkbox"/> SAND [6] <input type="checkbox"/> BEDROCK [5]	<p><b>POOL RIFFLE</b></p> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<p><b>OTHER TYPES</b></p> <input type="checkbox"/> HARDPAN [4] <input type="checkbox"/> DETRITUS [3] <input type="checkbox"/> MUCK [2] <input type="checkbox"/> SILT [2] <input type="checkbox"/> ARTIFICIAL [0]	<p><b>POOL RIFFLE</b></p> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<p><b>ORIGIN</b></p> <input type="checkbox"/> LIMESTONE [1] <input type="checkbox"/> TILLS [1] <input type="checkbox"/> WETLANDS [0] <input type="checkbox"/> HARDPAN [0] <input type="checkbox"/> SANDSTONE [0] <input type="checkbox"/> RIP/RAP [0] <input type="checkbox"/> LAGSTURINE [0] <input type="checkbox"/> SHALE [1-1] <input type="checkbox"/> COAL FINES [1-2]	<p><b>QUALITY</b></p> <input type="checkbox"/> HEAVY [-2] <input type="checkbox"/> MODERATE [-1] <input type="checkbox"/> NORMAL [0] <input type="checkbox"/> FREE [1] <input type="checkbox"/> EXTENSIVE [1-2] <input type="checkbox"/> MODERATE [1-1] <input type="checkbox"/> NORMAL [0] <input type="checkbox"/> NONE [1]
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**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.)

<p><b>AMOUNT</b></p> <input type="checkbox"/> EXTENSIVE >75% [1] <input type="checkbox"/> MODERATE 25-75% [1] <input type="checkbox"/> SPARSE 5-25% [3] <input type="checkbox"/> NEARLY ABSENT <5% [1]	<p><b>UNDERCUT BANKS</b> [1] <input type="checkbox"/></p> <p><b>OVERHANGING VEGETATION</b> [1] <input type="checkbox"/></p> <p><b>SHALLOWS (IN SLOW WATER)</b> [1] <input type="checkbox"/></p> <p><b>ROOTMATS</b> [1] <input type="checkbox"/></p>	<p><b>POOLS &gt; 70cm</b> [2] <input type="checkbox"/></p> <p><b>ROOTWADS</b> [1] <input type="checkbox"/></p> <p><b>BOULDERS</b> [1] <input type="checkbox"/></p>	<p><b>OXBOWS, BACKWATERS</b> [1] <input type="checkbox"/></p> <p><b>AQUATIC MACROPHYTES</b> [1] <input type="checkbox"/></p> <p><b>LOGS OR WOODY DEBRIS</b> [1] <input type="checkbox"/></p>
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**Comments**

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

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

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

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

**5) POOL / GLIDE AND RIFFLE / RUN QUALITY**

<p><b>MAXIMUM DEPTH</b></p> <p>Check ONE (ONLY)</p> <input type="checkbox"/> > 1m [6] <input type="checkbox"/> 0.7-1m [4] <input type="checkbox"/> 0.4-0.7m [2] <input type="checkbox"/> 0.2-0.4m [1] <input type="checkbox"/> < 0.2m [0]	<p><b>CHANNEL WIDTH</b></p> <p>Check ONE (Or 2 &amp; average)</p> <input type="checkbox"/> POOL WIDTH > RIFFLE WIDTH [2] <input type="checkbox"/> POOL WIDTH = RIFFLE WIDTH [1] <input type="checkbox"/> POOL WIDTH < RIFFLE WIDTH [0]	<p><b>CURRENT VELOCITY</b></p> <p>Check ALL that apply</p> <input type="checkbox"/> TORRENTIAL [1-1] <input type="checkbox"/> VERY FAST [1] <input type="checkbox"/> FAST [1] <input type="checkbox"/> MODERATE [1]	<p><b>RECREATION POTENTIAL</b></p> <p><input checked="" type="checkbox"/> Primary Contact</p> <p><input type="checkbox"/> Secondary Contact</p> <p>(circle one and comment on back)</p>
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**Comments**

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:  NO RIFFLE [metric=0]

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

**6) GRADIENT** (4.77 ft/mi)  VERY LOW - LOW [2-4]  MODERATE [6-10]  HIGH - VERY HIGH [30-6]

**DRAINAGE AREA** (730 mi<sup>2</sup>)

**% POOL:**  **% GLIDE:**

**% RUN:**  **% RIFFLE:**

**Comments**



