

**Stream & Location:** Euclid Creek - US of St. Clair Ave **RM:** 1.65 **Date:** 09/13/11

F. Rivera / K. Granlund **Scorers Full Name & Affiliation:** Northeast Ohio Regional Sewer District

**River Code:** - **STORET #:** - **Lat./Long.:** 41.5738 181.5470 (NAD 83 - decimal °) **Office verified location**

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

<p><b>BEST TYPES</b></p> <p><input type="checkbox"/> BLDR /SLABS [10]</p> <p><input type="checkbox"/> BOULDER [9]</p> <p><input checked="" type="checkbox"/> COBBLE [8]</p> <p><input checked="" type="checkbox"/> GRAVEL [7]</p> <p><input type="checkbox"/> SAND [6]</p> <p><input type="checkbox"/> BEDROCK [5]</p>	<p><b>POOL RIFFLE</b></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>	<p><b>OTHER TYPES</b></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><b>POOL RIFFLE</b></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>	<p><b>ORIGIN</b></p> <p><input type="checkbox"/> LIMESTONE [1]</p> <p><input checked="" 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"/> RIP/RAP [0]</p> <p><input type="checkbox"/> LACUSTURINE [0]</p> <p><input type="checkbox"/> SHALE [-1]</p> <p><input type="checkbox"/> COAL FINES [-2]</p>	<p><b>QUALITY</b></p> <p><input type="checkbox"/> HEAVY [-2]</p> <p><input type="checkbox"/> MODERATE [-1]</p> <p><input checked="" type="checkbox"/> NORMAL [0]</p> <p><input type="checkbox"/> FREE [1]</p> <p><input type="checkbox"/> EXTENSIVE [-2]</p> <p><input type="checkbox"/> MODERATE [-1]</p> <p><input type="checkbox"/> NORMAL [0]</p> <p><input type="checkbox"/> NONE [1]</p>	<p><b>SILT</b></p> <p><input type="checkbox"/></p>	<p><b>EMBEDDEDNESS</b></p> <p><input type="checkbox"/></p>	<p><b>Substrate</b></p> <div style="border: 1px solid black; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">17</div> <p>Maximum 20</p>
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**NUMBER OF BEST TYPES:**  4 or more [2]  3 or less [0] (Score natural substrates; ignore sludge from point-sources)

**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><input type="checkbox"/> UNDERCUT BANKS [1]</p> <p><input type="checkbox"/> OVERHANGING VEGETATION [1]</p> <p><input type="checkbox"/> SHALLOWS (IN SLOW WATER) [1]</p> <p><input type="checkbox"/> ROOTMATS [1]</p>	<p><b>AMOUNT</b></p> <p>Check ONE (Or 2 &amp; average)</p> <p><input type="checkbox"/> EXTENSIVE &gt;75% [11]</p> <p><input type="checkbox"/> MODERATE 25-75% [7]</p> <p><input checked="" type="checkbox"/> SPARSE 5-&lt;25% [3]</p> <p><input type="checkbox"/> NEARLY ABSENT &lt;5% [1]</p>	<p><input checked="" type="checkbox"/> POOLS &gt; 70cm [2]</p> <p><input type="checkbox"/> ROOTWADS [1]</p> <p><input type="checkbox"/> BOULDERS [1]</p>	<p><input type="checkbox"/> OXBOWS, BACKWATERS [1]</p> <p><input type="checkbox"/> AQUATIC MACROPHYTES [1]</p> <p><input type="checkbox"/> LOGS OR WOODY DEBRIS [1]</p>	<p><b>Cover</b></p> <div style="border: 1px solid black; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">12</div> <p>Maximum 20</p>
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**Comments**  
Undercut bank and rootwad on river right under tree

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

<p><b>SINUOSITY</b></p> <p><input type="checkbox"/> HIGH [4]</p> <p><input type="checkbox"/> MODERATE [3]</p> <p><input checked="" type="checkbox"/> LOW [2]</p> <p><input type="checkbox"/> NONE [1]</p>	<p><b>DEVELOPMENT</b></p> <p><input type="checkbox"/> EXCELLENT [7]</p> <p><input type="checkbox"/> GOOD [5]</p> <p><input type="checkbox"/> FAIR [3]</p> <p><input type="checkbox"/> POOR [1]</p>	<p><b>CHANNELIZATION</b></p> <p><input checked="" type="checkbox"/> NONE [6]</p> <p><input type="checkbox"/> RECOVERED [4]</p> <p><input type="checkbox"/> RECOVERING [3]</p> <p><input type="checkbox"/> RECENT OR NO RECOVERY [1]</p>	<p><b>STABILITY</b></p> <p><input type="checkbox"/> HIGH [3]</p> <p><input checked="" type="checkbox"/> MODERATE [2]</p> <p><input type="checkbox"/> LOW [1]</p>	<p><b>Channel</b></p> <div style="border: 1px solid black; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">14.5</div> <p>Maximum 20</p>
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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> <p><input type="checkbox"/> NONE / LITTLE [3]</p> <p><input type="checkbox"/> MODERATE [2]</p> <p><input checked="" type="checkbox"/> HEAVY / SEVERE [1]</p>	<p><b>RIPARIAN WIDTH</b></p> <p><input type="checkbox"/> WIDE &gt; 50m [4]</p> <p><input type="checkbox"/> MODERATE 10-50m [3]</p> <p><input type="checkbox"/> NARROW 5-10m [2]</p> <p><input type="checkbox"/> VERY NARROW &lt; 5m [1]</p> <p><input type="checkbox"/> NONE [0]</p>	<p><b>FLOOD PLAIN QUALITY</b></p> <p><input type="checkbox"/> FOREST, SWAMP [3]</p> <p><input type="checkbox"/> SHRUB OR OLD FIELD [2]</p> <p><input type="checkbox"/> RESIDENTIAL, PARK, NEW FIELD [1]</p> <p><input type="checkbox"/> FENCED PASTURE [1]</p> <p><input type="checkbox"/> OPEN PASTURE, ROWCROP [0]</p>	<p><b>CONSERVATION TILLAGE [1]</b></p> <p><input type="checkbox"/> URBAN OR INDUSTRIAL [0]</p> <p><input type="checkbox"/> MINING / CONSTRUCTION [0]</p>	<p><b>Riparian</b></p> <div style="border: 1px solid black; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">5.25</div> <p>Maximum 10</p>
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**Comments**  
Heavy erosion downstream

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

<p><b>MAXIMUM DEPTH</b></p> <p>Check ONE (ONLY!)</p> <p><input checked="" type="checkbox"/> &gt; 1m [6]</p> <p><input type="checkbox"/> 0.7-&lt;1m [4]</p> <p><input type="checkbox"/> 0.4-&lt;0.7m [2]</p> <p><input type="checkbox"/> 0.2-&lt;0.4m [1]</p> <p><input type="checkbox"/> &lt; 0.2m [0]</p>	<p><b>CHANNEL WIDTH</b></p> <p>Check ONE (Or 2 &amp; average)</p> <p><input type="checkbox"/> POOL WIDTH &gt; RIFFLE WIDTH [2]</p> <p><input type="checkbox"/> POOL WIDTH = RIFFLE WIDTH [1]</p> <p><input checked="" type="checkbox"/> POOL WIDTH &lt; RIFFLE WIDTH [0]</p>	<p><b>CURRENT VELOCITY</b></p> <p>Check ALL that apply</p> <p><input type="checkbox"/> TORRENTIAL [-1]</p> <p><input type="checkbox"/> VERY FAST [1]</p> <p><input checked="" type="checkbox"/> FAST [1]</p> <p><input checked="" type="checkbox"/> MODERATE [1]</p> <p><input type="checkbox"/> SLOW [1]</p> <p><input type="checkbox"/> INTERSTITIAL [-1]</p> <p><input type="checkbox"/> INTERMITTENT [-2]</p> <p><input type="checkbox"/> EDDIES [1]</p>	<p><b>Recreation Potential</b></p> <p><b>Primary Contact</b></p> <p><b>Secondary Contact</b></p> <p><small>(circle one and comment on back)</small></p>	<p><b>Pool / Current</b></p> <div style="border: 1px solid black; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">10</div> <p>Maximum 12</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> <p><input checked="" type="checkbox"/> BEST AREAS &gt; 10cm [2]</p> <p><input type="checkbox"/> BEST AREAS 5-10cm [1]</p> <p><input type="checkbox"/> BEST AREAS &lt; 5cm [metric=0]</p>	<p><b>RUN DEPTH</b></p> <p><input checked="" type="checkbox"/> MAXIMUM &gt; 50cm [2]</p> <p><input type="checkbox"/> MAXIMUM &lt; 50cm [1]</p>	<p><b>RIFFLE / RUN SUBSTRATE</b></p> <p><input type="checkbox"/> STABLE (e.g., Cobble, Boulder) [2]</p> <p><input checked="" type="checkbox"/> MOD. STABLE (e.g., Large Gravel) [1]</p> <p><input type="checkbox"/> UNSTABLE (e.g., Fine Gravel, Sand) [0]</p>	<p><b>RIFFLE / RUN EMBEDDEDNESS</b></p> <p><input type="checkbox"/> NONE [2]</p> <p><input checked="" type="checkbox"/> LOW [1]</p> <p><input type="checkbox"/> MODERATE [0]</p> <p><input type="checkbox"/> EXTENSIVE [-1]</p>	<p><b>Riffle / Run</b></p> <div style="border: 1px solid black; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">5.5</div> <p>Maximum 8</p>
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**Comments**

**6) GRADIENT** (16.20 ft/mi)  VERY LOW - LOW [2-4]  MODERATE [6-10]  HIGH - VERY HIGH [10-6]

**DRAINAGE AREA** (21.8 mi<sup>2</sup>)

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

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

**Gradient**

10

Maximum 10

**AJ SAMPLED REACH**

Check ALL that apply

**METHOD**

- BOAT
- WADE
- L. LINE
- OTHER

**DISTANCE**

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

**CLARITY**

- 1st --sample pass-- 2nd
- < 20 cm
- 20-40 cm
- 40-70 cm
- > 70 cm / CTB
- SECCHI DEPTH

meters

**CANOPY**

- > 85% - OPEN
- 55% - < 85%
- 30% - < 55%
- 10% - < 30%
- < 10% - CLOSED

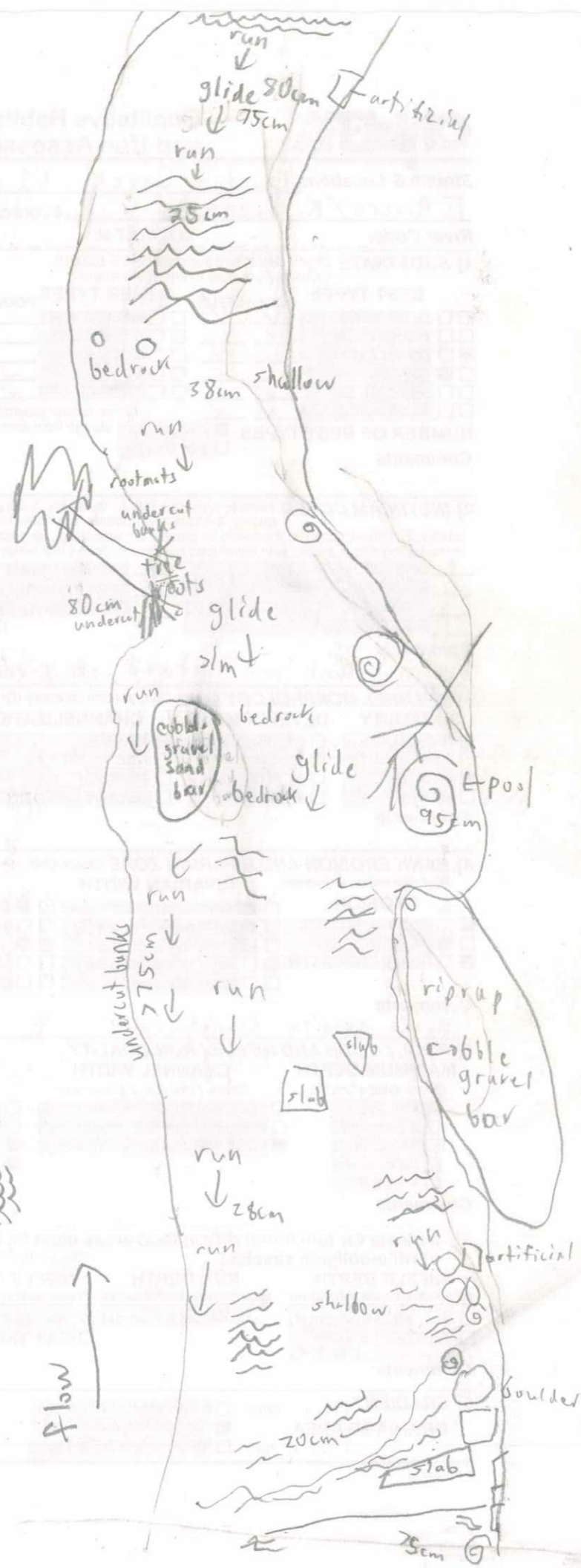
**CJ RECREATION**

AREA DEPTH POOL:  > 100ft<sup>2</sup>  > 3ft

**Stream Drawing:**

⊙ = eddy  
 ~~~~~ = riffle

flow →



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

Flow is elevated

At DS looking US - 3351 R.R. - 3355

River Right - 3352 R.L. - 3356 + 3357

River Left - 3353

At US looking DS - 3354

**FJ MEASUREMENTS**

- $\bar{x}$  width
  - $\bar{x}$  depth
  - max. depth
  - bankfull width
  - bankfull  $\bar{x}$  depth
  - W/D ratio
  - bankfull max. depth
  - floodprone  $\bar{x}^2$  width
  - entrench. ratio
- Legacy Tree:

**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<sub>2</sub>O / TILE / H<sub>2</sub>O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF / LAWN / HOME
- ATMOSPHERE / DATA PAUCITY

Circle some & COMMENT

**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

**BJ AESTHETICS**

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

Stream & Location: EULLDS CREEK DS of LAKESHORE BLDW RM: 0.55 Date: 06/15/11

J. PHADES / F. ROJERA / K. GRANLUND Scorers Full Name & Affiliation: Northeast Ohio Regional Sewer District

River Code: - STORET #: Lat./ Long.: 41.5883 181.55936 Office verified location

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

Substrate assessment grid with categories: BEST TYPES, OTHER TYPES, POOL RIFFLE, ORIGIN, QUALITY. Includes checkboxes for BLDR/SLABS, BOULDER, COBBLE, GRAVEL, SAND, BEDROCK, etc.

NUMBER OF BEST TYPES: 4 or more [2] sludge from point-sources) 3 or less [0]

Comments: CLOSE TO 2X JUNGLE SAND ~ 70% SUBSTRATE IS SAND

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

Instream Cover assessment grid with categories: UNDERCUT BANKS, OVERHANGING VEGETATION, SHALLOWS, ROOTMATS, POOLS > 70cm, ROOTWADS, BOULDERS, OXBOWS, BACKWATERS, AQUATIC MACROPHYTES, LOGS OR WOODY DEBRIS

Comments: Cover Maximum 20

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

Channel Morphology assessment grid with categories: SINUOSITY, DEVELOPMENT, CHANNELIZATION, STABILITY

Comments: Channel Maximum 20

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

Bank Erosion and Riparian Zone assessment grid with categories: EROSION, RIPARIAN WIDTH, FLOOD PLAIN QUALITY

Comments: Riparian Maximum 10

5) POOL / GLIDE AND RIFFLE / RUN QUALITY

Pool / Glide and Riffle / Run Quality assessment grid with categories: MAXIMUM DEPTH, CHANNEL WIDTH, CURRENT VELOCITY

Comments: Pool / Current Maximum 12

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (Or 2 & average) NO RIFFLE [metric=0]

Riffle / Run Quality assessment grid with categories: RIFFLE DEPTH, RUN DEPTH, RIFFLE / RUN SUBSTRATE, RIFFLE / RUN EMBEDDEDNESS

Comments: Riffle / Run Maximum 8

6) GRADIENT (0.20 ft/mi) DRAINAGE AREA (23.5 mi^2) %POOL: %GLIDE: %RUN: %RIFFLE: Gradient Maximum 10

