

Stream & Location: Doan Brook Site #16.1 St. Clair RM: 0.75 Date: 6/19/08
Zablotny, Moore, Perry Scorers Full Name & Affiliation: Northeast Ohio Regional Sewer District
River Code: STORET #: Lat./ Long.: 41.5330 181.6296 Office verified location

1] SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present. BEST TYPES: BLDR / SLABS [10], BOULDER [9], COBBLE [8], GRAVEL [7], SAND [6], BEDROCK [5]. OTHER TYPES: HARDPAN [4], DETRITUS [3], MUCK [2], SILT [2], ARTIFICIAL [0]. ORIGIN: LIMESTONE [1], TILLS [1], WETLANDS [0], SANDSTONE [0], RIP/RAP [0], LACUSTURINE [0], SHALE [-1], COAL FINES [-2]. QUALITY: HEAVY [-2], MODERATE [-1], NORMAL [0], FREE [1], EXTENSIVE [-2], MODERATE [-1], NORMAL [0], NONE [1]. Substrate Maximum 20. Comments: Detritus in pools

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. UNDERCUT BANKS [1], OVERHANGING VEGETATION [1], SHALLOWS (IN SLOW WATER) [1], ROOTMATS [1]. POOLS > 70cm [2], ROOTWADS [1], BOULDERS [1]. OXBOWS, BACKWATERS [1], AQUATIC MACROPHYTES [1], LOGS OR WOODY DEBRIS [1]. AMOUNT: EXTENSIVE >75% [11], MODERATE 25-75% [7], SPARSE 5-<25% [3], NEARLY ABSENT <5% [1]. Cover Maximum 20. Comments: Detritus in pools

3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average). SINUOSITY: HIGH [4], MODERATE [3], LOW [2], NONE [1]. DEVELOPMENT: EXCELLENT [7], GOOD [5], FAIR [3], POOR [1]. CHANNELIZATION: NONE [6], RECOVERED [4], RECOVERING [3], RECENT OR NO RECOVERY [1]. STABILITY: HIGH [3], MODERATE [2], LOW [1]. Channel Maximum 20. Comments: Detritus in pools

4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average). EROSION: 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]. FLOOD PLAIN QUALITY: FOREST, SWAMP [3], SHRUB OR OLD FIELD [2], RESIDENTIAL, PARK, NEW FIELD [1], FENCED PASTURE [1], OPEN PASTURE, ROWCROP [0]. CONSERVATION TILLAGE [1], URBAN OR INDUSTRIAL [0], MINING / CONSTRUCTION [0]. Riparian Maximum 10. Comments: Detritus in pools

5] POOL / GLIDE AND RIFFLE / RUN QUALITY MAXIMUM DEPTH: > 1m [6], 0.7-<1m [4], 0.4-<0.7m [2], 0.2-<0.4m [1], < 0.2m [0]. CHANNEL WIDTH: POOL WIDTH > RIFFLE WIDTH [2], POOL WIDTH = RIFFLE WIDTH [1], POOL WIDTH < RIFFLE WIDTH [0]. CURRENT VELOCITY: TORRENTIAL [-1], VERY FAST [1], FAST [1], MODERATE [1], SLOW [1], INTERSTITIAL [-1], INTERMITTENT [-2], EDDIES [1]. Recreation Potential: Primary Contact, Secondary Contact. Pool / Current Maximum 12. Comments: Detritus in pools

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: NO RIFFLE [metric=0]. RIFFLE DEPTH: BEST AREAS > 10cm [2], BEST AREAS 5-10cm [1], BEST AREAS < 5cm [metric=0]. RUN DEPTH: MAXIMUM > 50cm [2], MAXIMUM < 50cm [1]. RIFFLE / RUN SUBSTRATE: STABLE (e.g., Cobble, Boulder) [2], MOD. STABLE (e.g., Large Gravel) [1], UNSTABLE (e.g., Fine Gravel, Sand) [0]. RIFFLE / RUN EMBEDDEDNESS: NONE [2], LOW [1], MODERATE [0], EXTENSIVE [-1]. Riffle / Run Maximum 8. Comments: Detritus in pools

6] GRADIENT (13.9 ft/mi) DRAINAGE AREA (9.1 mi^2). VERY LOW - LOW [2-4], MODERATE [6-10], HIGH - VERY HIGH [10-6]. %POOL: %GLIDE: %RUN: %RIFFLE: Gradient Maximum 10. Comments: Detritus in pools

**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
- SECHI DEPTH

meters

**CANOPY**

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

**CJ RECREATION**

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

**BJAESTHETICS**

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

**FJ MEASUREMENTS**

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

Legacy Tree:

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

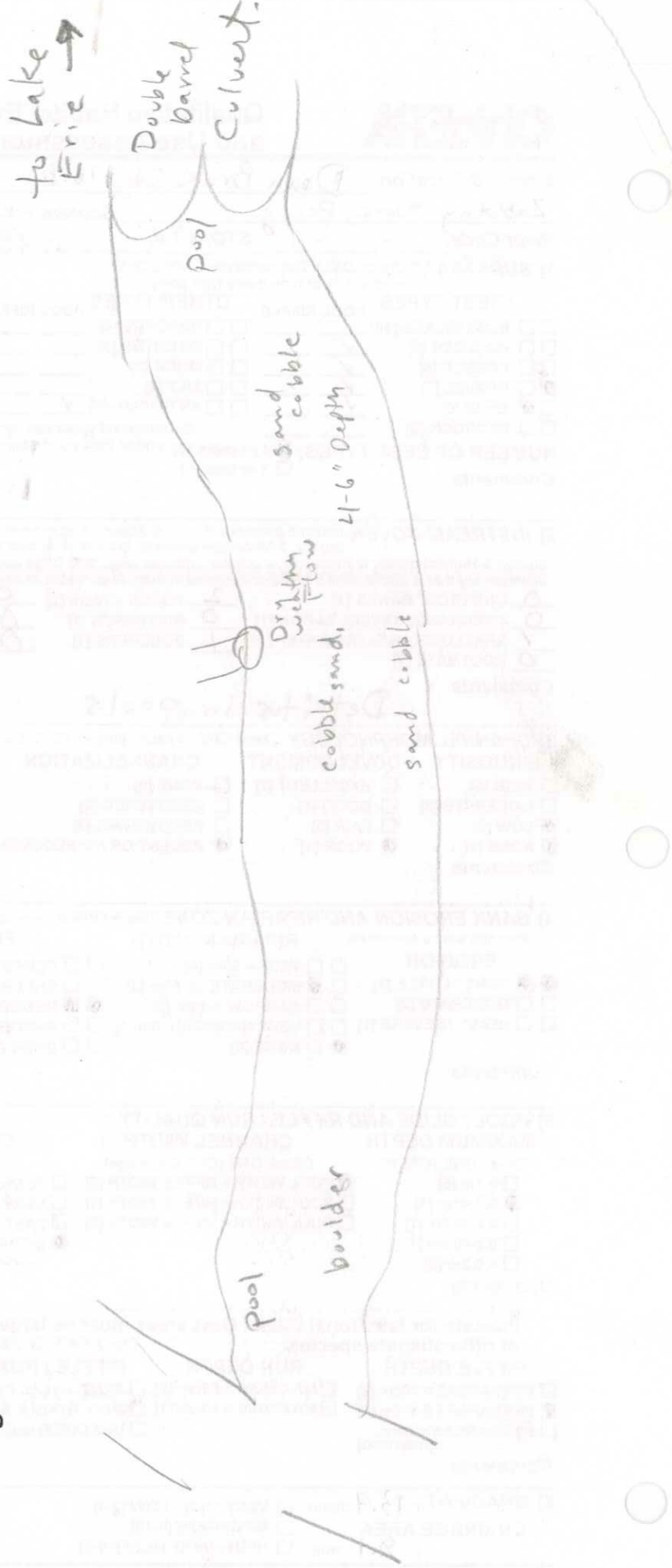
Pics: 100-1534 RR Riparian looking DS

100-1535 End of Zone DS looking DS

100-1536 End of Zone DS looking US

100-1533 RL Riparian looking DS

**Stream Drawing:**





# Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score: **59**

Stream & Location: Doan Brook Site #19.5 Attleboro Rd RM: 1.40 Date: 6/18/08

Zablotny, Perry Scorers Full Name & Affiliation: Northeast Ohio Regional Sewer District  
 River Code: - STORET #: - Lat./ Long.: 41.4739 181.5593 Office verified location

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

<b>BEST TYPES</b>	<b>POOL RIFFLE</b>	<b>OTHER TYPES</b>	<b>POOL RIFFLE</b>	<b>ORIGIN</b>	<b>QUALITY</b>
<input type="checkbox"/> BLD/SLABS [10]	<input checked="" type="checkbox"/>	<input type="checkbox"/> HARDPAN [4]	<input type="checkbox"/>	<input type="checkbox"/> LIMESTONE [1]	<input type="checkbox"/> HEAVY [-2]
<input type="checkbox"/> BOULDER [9]	<input checked="" type="checkbox"/>	<input type="checkbox"/> DETRITUS [3]	<input type="checkbox"/>	<input checked="" type="checkbox"/> TILLS [1]	<input type="checkbox"/> MODERATE [-1]
<input checked="" type="checkbox"/> COBBLE [8]	<input type="checkbox"/>	<input type="checkbox"/> MUCK [2]	<input type="checkbox"/>	<input type="checkbox"/> WETLANDS [0]	<input checked="" type="checkbox"/> NORMAL [0]
<input checked="" type="checkbox"/> GRAVEL [7]	<input checked="" type="checkbox"/>	<input type="checkbox"/> SILT [2]	<input type="checkbox"/>	<input type="checkbox"/> HARDPAN [0]	<input type="checkbox"/> FREE [1]
<input type="checkbox"/> SAND [6]	<input checked="" type="checkbox"/>	<input type="checkbox"/> ARTIFICIAL [0]	<input checked="" type="checkbox"/>	<input type="checkbox"/> SANDSTONE [0]	<input type="checkbox"/> EXTENSIVE [-2]
<input type="checkbox"/> BEDROCK [5]	<input type="checkbox"/>			<input type="checkbox"/> RIP/RAP [0]	<input type="checkbox"/> MODERATE [-1]

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

Comments: white scum Bacteria growth in substrate

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.

<u>2</u> UNDERCUT BANKS [1]	<u>0</u> POOLS > 70cm [2]	<u>0</u> OXBOWS, BACKWATERS [1]
<u>1</u> OVERHANGING VEGETATION [1]	<u>0</u> ROOTWADS [1]	<u>0</u> AQUATIC MACROPHYTES [1]
<u>1</u> SHALLOWS (IN SLOW WATER) [1]	<u>0</u> BOULDERS [1]	<u>0</u> LOGS OR WOODY DEBRIS [1]
<u>3</u> ROOTMATS [1]		

Comments: white scum Bacteria growth in substrate

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

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

Comments: white scum Bacteria growth in substrate

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

<b>EROSION</b>	<b>RIPARIAN WIDTH</b>	<b>FLOOD PLAIN QUALITY</b>
<input checked="" type="checkbox"/> NONE / LITTLE [3]	<input type="checkbox"/> WIDE > 50m [4]	<input type="checkbox"/> FOREST, SWAMP [3]
<input type="checkbox"/> MODERATE [2]	<input checked="" type="checkbox"/> MODERATE 10-50m [3]	<input type="checkbox"/> SHRUB OR OLD FIELD [2]
<input type="checkbox"/> HEAVY / SEVERE [1]	<input type="checkbox"/> NARROW 5-10m [2]	<input checked="" type="checkbox"/> RESIDENTIAL, PARK, NEW FIELD [1]
	<input checked="" 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: white scum Bacteria growth in substrate

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

<b>MAXIMUM DEPTH</b>	<b>CHANNEL WIDTH</b>	<b>CURRENT VELOCITY</b>
Check ONE (ONLY!)	Check ONE (Or 2 & average)	Check ALL that apply
<input checked="" type="checkbox"/> > 1m [6]	<input type="checkbox"/> POOL WIDTH > RIFFLE WIDTH [2]	<input type="checkbox"/> TORRENTIAL [-1]
<input type="checkbox"/> 0.7-<1m [4]	<input checked="" type="checkbox"/> POOL WIDTH = RIFFLE WIDTH [1]	<input checked="" type="checkbox"/> SLOW [1]
<input type="checkbox"/> 0.4-<0.7m [2]	<input type="checkbox"/> POOL WIDTH < RIFFLE WIDTH [0]	<input type="checkbox"/> VERY FAST [1]
<input type="checkbox"/> 0.2-<0.4m [1]		<input type="checkbox"/> FAST [1]
<input type="checkbox"/> < 0.2m [0]		<input type="checkbox"/> MODERATE [1]

Comments: white scum Bacteria growth in substrate

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

<b>RIFFLE DEPTH</b>	<b>RUN DEPTH</b>	<b>RIFFLE / RUN SUBSTRATE</b>	<b>RIFFLE / RUN EMBEDDEDNESS</b>
<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]

Comments: white scum Bacteria growth in substrate

6] **GRADIENT** (43.5 ft/mi)  VERY LOW - LOW [2-4]  MODERATE [6-10]  HIGH - VERY HIGH [10-6]

**DRAINAGE AREA** (3.4 mi<sup>2</sup>)

% POOL:  % GLIDE:  % RUN:  % RIFFLE:

**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
- >100ft<sup>2</sup>
- >3ft

**BJAESTHETICS**

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

**FJ MEASUREMENTS**

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

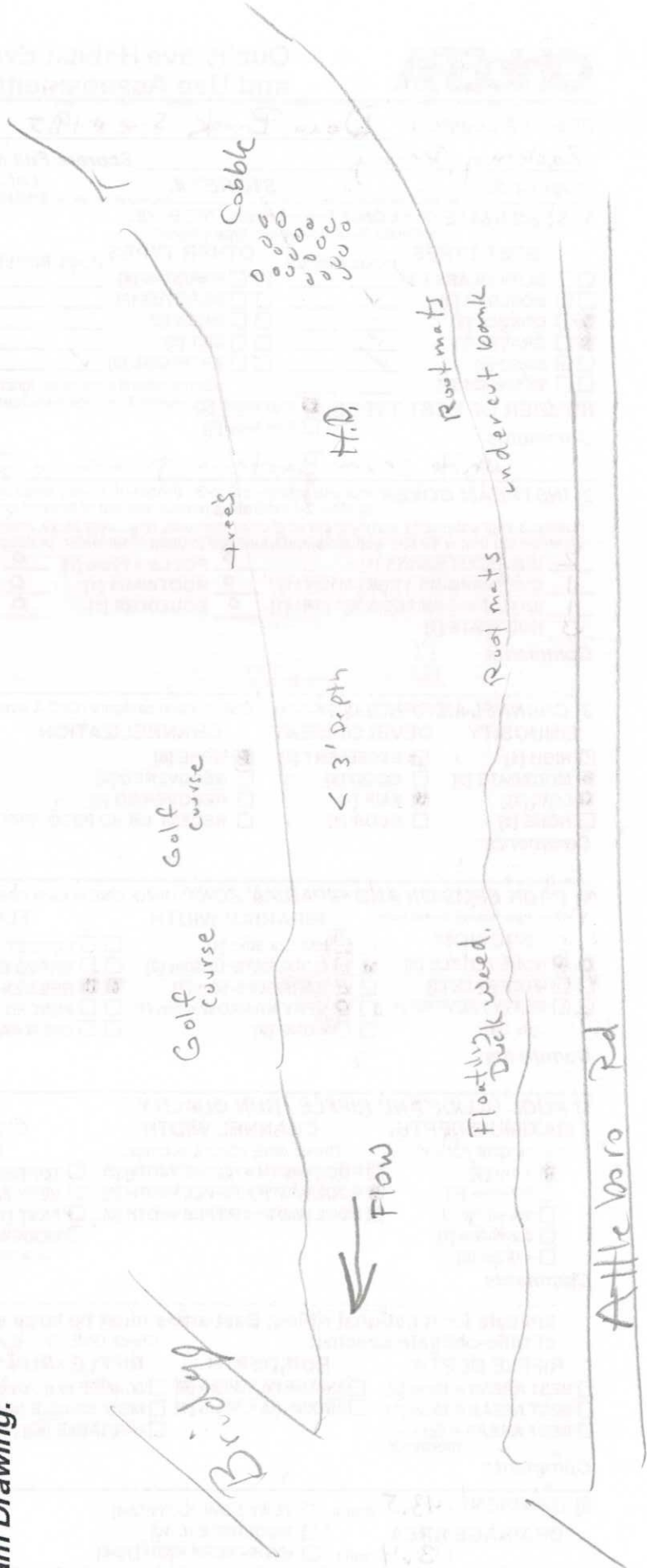
Legacy Tree:

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

Res:

100- 1513 Looking D.S. in Zone  
 100- 1514 RR Riparian Zone looking DS  
 100- 1516 RL Riparian Zone looking US

**Stream Drawing:**



Stream & Location: Doan Brook Site #18.1 Lee Road RM: 6.70 Date: 6/18/09

Zablotny Perry Scorers Full Name & Affiliation: Northeast Ohio Regional Sewer District  
River Code: - STORET #: - Lat./Long.: 41.4838 181.5643 Office verified location

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

<b>BEST TYPES</b>	<b>POOL RIFFLE</b>	<b>OTHER TYPES</b>	<b>POOL RIFFLE</b>	<b>ORIGIN</b>	<b>QUALITY</b>
<input type="checkbox"/> BLDR /SLABS [10]	<input checked="" type="checkbox"/>	<input type="checkbox"/> HARDPAN [4]	<input type="checkbox"/>	<input type="checkbox"/> LIMESTONE [1]	<input type="checkbox"/> HEAVY [-2]
<input type="checkbox"/> BOULDER [9]	<input type="checkbox"/>	<input type="checkbox"/> DETRITUS [3]	<input type="checkbox"/>	<input checked="" type="checkbox"/> TILLS [1]	<input type="checkbox"/> MODERATE [-1]
<input checked="" type="checkbox"/> COBBLE [8]	<input type="checkbox"/>	<input type="checkbox"/> MUCK [2]	<input type="checkbox"/>	<input type="checkbox"/> WETLANDS [0]	<input checked="" type="checkbox"/> NORMAL [0]
<input checked="" type="checkbox"/> GRAVEL [7]	<input type="checkbox"/>	<input type="checkbox"/> SILT [2]	<input type="checkbox"/>	<input type="checkbox"/> SANDSTONE [0]	<input type="checkbox"/> FREE [1]
<input type="checkbox"/> SAND [6]	<input type="checkbox"/>	<input type="checkbox"/> ARTIFICIAL [0]	<input type="checkbox"/>	<input type="checkbox"/> RIP/RAP [0]	<input type="checkbox"/> EXTENSIVE [-2]
<input type="checkbox"/> BEDROCK [5]	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/> LACUSTURINE [0]	<input type="checkbox"/> MODERATE [-1]

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.

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

Comments

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

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

Comments

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

<b>EROSION</b>	<b>RIPARIAN WIDTH</b>	<b>FLOOD PLAIN QUALITY</b>
<input type="checkbox"/> NONE / LITTLE [3]	<input checked="" type="checkbox"/> WIDE > 50m [4]	<input type="checkbox"/> FOREST, SWAMP [3]
<input checked="" type="checkbox"/> MODERATE [2]	<input type="checkbox"/> MODERATE 10-50m [3]	<input type="checkbox"/> SHRUB OR OLD FIELD [2]
<input type="checkbox"/> HEAVY / SEVERE [1]	<input type="checkbox"/> NARROW 5-10m [2]	<input checked="" type="checkbox"/> RESIDENTIAL, PARK, NEW FIELD [1]
	<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

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

<b>MAXIMUM DEPTH</b>	<b>CHANNEL WIDTH</b>	<b>CURRENT VELOCITY</b>
Check ONE (ONLY!)	Check ONE (Or 2 & average)	Check ALL that apply
<input type="checkbox"/> > 1m [6]	<input checked="" type="checkbox"/> POOL WIDTH > RIFFLE WIDTH [2]	<input type="checkbox"/> TORRENTIAL [-1]
<input type="checkbox"/> 0.7-<1m [4]	<input type="checkbox"/> POOL WIDTH = RIFFLE WIDTH [1]	<input checked="" type="checkbox"/> SLOW [1]
<input type="checkbox"/> 0.4-<0.7m [2]	<input type="checkbox"/> POOL WIDTH < RIFFLE WIDTH [0]	<input type="checkbox"/> VERY FAST [1]
<input checked="" type="checkbox"/> 0.2-<0.4m [1]		<input type="checkbox"/> FAST [1]
<input type="checkbox"/> < 0.2m [0]		<input type="checkbox"/> MODERATE [1]

Comments

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

<b>RIFFLE DEPTH</b>	<b>RUN DEPTH</b>	<b>RIFFLE / RUN SUBSTRATE</b>	<b>RIFFLE / RUN EMBEDDEDNESS</b>
<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]

Comments

6] **GRADIENT** (56.2 ft/mi)  VERY LOW - LOW [2-4]  MODERATE [6-10]  HIGH - VERY HIGH [10-6]

**DRAINAGE AREA** (1.2 mi<sup>2</sup>)

%POOL:  %GLIDE:   
%RUN:  %RIFFLE:

Comments

**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

**BJ AESTHETICS**

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

**FJ MEASUREMENTS**

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

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

Pics!

100-1517 - Furthest end Zone Look D.S.  
 100-1518 - RL Riparian Look D.S.  
 100-1519 - RR Riparian Look D.S.  
 100-1520 - Furthest end Zone Look D.S.

**Stream Drawing:**

