APPENDIX J: Fish Sampling & Bethic Macroinvertebrate Field Sheets

Site Identification

Stream Code	Site Code	Sample	Date (yyyy-mm-dd)
ST	ST01	01	2016-05-24

Stream Name	Site Length (m)
STONEY	40.0

*** Record using NAD83 datum

	Zone	Easting	Northing
Uncorr. UTM	17	601586.6	4781937.0
Corr. UTM	1	.	.

OR

	DD	MM	SS.sss
Lat.			.
Long.			.

Source of Uncorrected UTM Coordinates

- GPS/DGPS ☒
- GIS ☐
- OBM ☐

Other:

Source of Corrected UTM Coordinates

- FWIS ☒
- Ortho-photos ☒
- GIS ☒

Other:

Name of Layer Used for Correction:

Access Route

FIRST STREAM CROSSING SOUTH OF MUD/SECOND ST

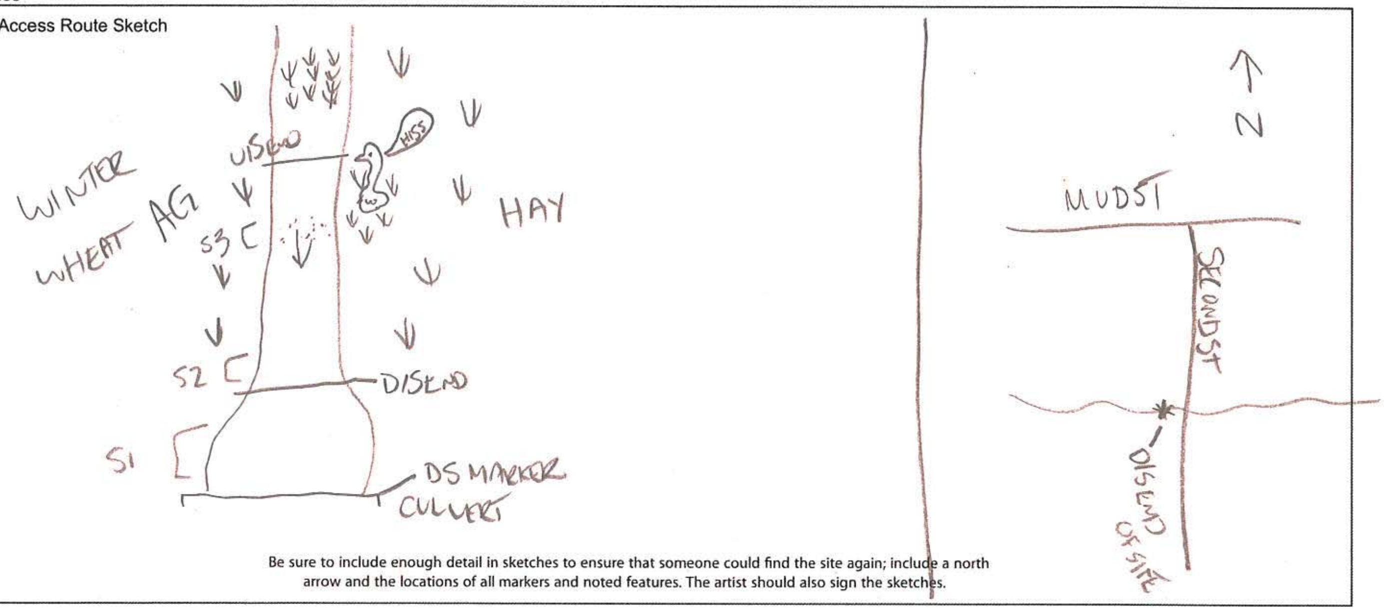
Site Description

U/S SIDE OF CULVERT IS D/S MARKER

☒ **Site Was Unsampleable** - add reason(s) on reverse

Sketches

Site/Access Route Sketch



Be sure to include enough detail in sketches to ensure that someone could find the site again; include a north arrow and the locations of all markers and noted features. The artist should also sign the sketches.

Comments

Crew Leader (init. & last name)		Crew	Recorder	Entered	Verified	Corrected
L	KARLEWICZ	R. VITO	LK			

Site Features

Mandatory Fields In Grey
Must be filled out for processing

Stream Code	Site Code	Sample	Date (mm-dd)
ST	ST01	01	2016 05-24

Stream Name: STONEY

For each landuse, check box that applies. Be sure to include comments explaining the particulars, including names and numbers of contacts

Site Features	Ongoing & Active	Historical Evidence	No Evidence but Reported	No Evidence	Unknown	Comments
Potential Point or Non-point Source Contaminant Sources	☒	☐	☐	☐	☐	AG
Major Nutrient Sources Upstream	☒	☐	☐	☐	☐	AG
Channel Hardening or Straightening	☒	☐	☐	☐	☐	STRAIGHTENED
Adjacent Landuses that Destabilize Banks	☐	☐	☐	☒	☐	
Sediment Loading or Deprivation	☐	☐	☐	☒	☐	
Instream Habitat Modifications	☐	☐	☐	☒	☐	
Barriers and/or Dams in the Vicinity of the Site	☐	☐	☐	☒	☐	
High Fishing Pressure	☐	☐	☐	☒	☐	
Log Jam Deflectors	☐	☐	☐	☒	☐	
Springs or Seeps at the Site	☐	☐	☐	☒	☐	
Impervious Substrate Limiting Burrowing Depth of Fish	☐	☐	☐	☒	☐	
Fish Stocked Near Sample Site	☐	☐	☐	☒	☐	
Other Activities that Could Influence Biota or Habitat	☐	☐	☐	☒	☐	

Sources of Information

Visual Immediate ☒ Visual Extended ☒ Interview ☐ Maps & Photos ☐

Temperatures

Time (24hr)	Air Temp (°C)
11:00	22
Water Temp (°C)	**Max Air Temp (°C)**
16.8	
Max. Water Temp (°C)	**Source of Max. Air Temp**

Riparian Vegetation Community
Only check one box for each bank and zone.

Dominant Vegetation Type

Riparian Zone	Left Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands	Right Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands
1.5-10m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
10-30m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
30-100m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐

Comments

Crew Leader (initial & last name)	Crew Initials	Recorder	Ent/Scanned	Verified	Corrected
L KARLEWICZ	R. VITO	LK			

Site Features

Mandatory Fields In Grey
Must be filled out for processing

Stream Code	Site Code	Sample	Date (mm-dd)
ST	ST02		2016 05-25

Stream Name: STONEY

For each landuse, check box that applies. Be sure to include comments explaining the particulars, including names and numbers of contacts

Site Features	Ongoing & Active	Historical Evidence	No Evidence but Reported	No Evidence	Unknown	Comments
Potential Point or Non-point Source Contaminant Sources	☒	☐	☐	☐	☐	AG
Major Nutrient Sources Upstream	☒	☐	☐	☐	☐	AG
Channel Hardening or Straightening	☒	☐	☐	☐	☐	STRAIGHTENED
Adjacent Landuses that Destabilize Banks	☐	☐	☐	☒	☐	
Sediment Loading or Deprivation	☐	☐	☐	☒	☐	
Instream Habitat Modifications	☐	☐	☐	☒	☐	
Barriers and/or Dams in the Vicinity of the Site	☐	☐	☐	☒	☐	
High Fishing Pressure	☐	☐	☐	☒	☐	
Log Jam Deflectors	☐	☐	☐	☒	☐	
Springs or Seeps at the Site	☐	☐	☐	☒	☐	
Impervious Substrate Limiting Burrowing Depth of Fish	☐	☐	☐	☒	☐	
Fish Stocked Near Sample Site	☐	☐	☐	☒	☐	
Other Activities that Could Influence Biota or Habitat	☐	☐	☐	☒	☐	

Sources of Information
Visual Immediate ☒ Visual Extended ☒ Interview ☐ Maps & Photos ☒

Temperatures

Time (24hr)	Air Temp (°C)	Water Temp (°C)	Max Air Temp (°C)	Max. Water Temp (°C)	Source of Max. Air Temp
12:00	29	21.5			

Riparian Vegetation Community
Only check one box for each bank and zone.

Dominant Vegetation Type

Riparian Zone	Left Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands	Right Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands
1.5-10m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
10-30m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
30-100m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐

Comments

Crew Leader (initial & last name)	Crew Initials	Recorder	Ent/Scanned	Verified	Corrected
L KARLEWICZ	R.VITO	LK			

Benthic Survey Sheet

Mandatory Fields In Grey
Must be filled out for processing

Stream Code	Site Code	Sample	Date (mm-dd)	Time (24hr)
ST	ST02	01	2016 05 24	12:20

Stream Name: STONEY

NOTE:
For all measurements, right and left banks defined facing upstream.

Water Quality

Water Temp (°C)	Conductivity (uS/cm)	pH	DO (mg/L)	Alkalinity (mg/L as CaCO3)
21.5	2612	8.1	81.2	

Substrate

Enter dominant substrate class and second dominant class for each sub-sample.

	Collect. Area 1	Collect. Area 2	Collect. Area 3
Dominant	2	2	2
2nd Dominant	1	1	1

Class	Description
1	Clay (hard pan)
2	Silt (floury, <0.06 mm particle diameter)
3	Sand (grainy, 0.06 - 2mm)
4	Gravel (2 - 65 mm)
5	Cobble (65 - 250 mm)
6	Boulder (>250 mm)
7	Bed Rock

Bankfull Width (m): 5.5

Gear Type
- ☐ Poled Seine ☐ Ponar
- ☒ D-Net ☐ Ekman
- ☐ Surber ☐ Other :

Collection Method
- ☐ Rapid Survey
- ☐ Stationary Kick Survey
- ☒ Transect Kick & Sweep
- ☐ Grab

MeshSize (microns)
- ☐ 250 ☐ 600
- ☒ 500 ☐ 1000

(Select the box that most closely represents the mesh size used.)

% Canopy Cover
- ☒ 0 - 24 ☐ 50 - 74
- ☐ 25 - 49 ☐ 75 - 100

River Characterization
- ☐ Perennial
- ☒ Intermittent
- ☐ Unknown

Candidate Reference Site? (ie. minimally impacted)
- ☐ Yes
- ☒ No

If instrument used, record type:

Comments

Crew Leader (initial & last name): L KARLEWICZ

Aquatic Macrophytes & Algae

Enter appropriate abundance class for each type and sub-sample.

Macrophytes	Collect. Area 1	Collect. Area 2	Collect. Area 3
Emergent	0	0	0
Rooted Floating	0	0	0
Submergent	2	2	2
Free Floating	0	0	0

Algae	Collect. Area 1	Collect. Area 2	Collect. Area 3
Floating Algae	0	0	0
Filamentous	0	0	0
Attached Algae	0	0	0

Class	Descr
0	Abser
1	Prese
2	Abunc

Riparian Vegetation Community

Only check one box for each bank and zone.

Dominant Vegetation Type

Riparian Zone	Left Bank: None	Lawn	Cropland	Meadow	Scrubland	Forest	Wetlands	Right Bank: None	Lawn	Cropland	Meadow	Scrubland	Forest	Wetlands
1.5-10m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
10-30m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
30-100m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐

	Pool or Riffle (P/R)	Sampling Dist.(m)	Sampling Time (min : sec)	Max. Depth (mm)	Hydraulic Head (mm)	Wetted Width (m)	Grabs/ Area
Collection Area 1:	R	1.0	1:00	150	0	3.1	
Collection Area 2:	P	1.0	1:00	170	0	3.2	
Collection Area 3:	R	1.0	1:00	150	0	2.9	

Enter a P or an R to indicate whether the collection was a riffle or pool.

1, 2, or 3 grabs can be collected within each collection area.

Pebble sizes (mm) use sizes from table 2

Crew Names: R.VITO

Recorder Init. Entered	Verified	Corrected
LK		

Fish Sampling

Mandatory Fields In Grey
Must be filled out for processing

Stream Name: STONEY

Date (yyyy-mm-dd): 2016-05-24

Stream Code: ST | Sample: 01 | Run No.: 01 of 01

Site Code: ST02 | Science Collect. No.:

Start Time (24hr): 12:00 | Stop Time (24hr): 12:20

Elapsed Min.: 20 | Shocker Sec.: 450

Model No.: HT 2000

Anod. Voltage: 1 100 | Frequency: 60 | Pulse: DC

Channel Morphology Available? ☐ Yes ☒ No

If no, measure the station length and 10 widths.

Length (m): 40.0

Widths (m): 1 2 3 4 5 6 7 8 9 10

Individual Fish

☒ Total Length
☐ Fork Length

B = Bulk P = Preserved O = Otolith S = Scale

ID	Species	Length (mm)	Weight (g)	B/O	P/S	Sp Name/Remarks
1	281	45	0.3			BROOK STICKLEBACK
2	281	47	0.3			BROOK STICKLEBACK
3	209	35	0.1			FATHEAD MINNOW
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Comments

Bulk Fish

Grp #
0 = unsorted or mixed sizes/ages
1 = YOY salmonines with total length < 100mm
2 = salmonines with total length > 100mm

Deviations *(Check all that apply)*
☐ Inexperienced Sampler ☐ Upstream Blocknet Used ☐ All Habitats not Sampled ☐ Imprecise Weigh Scale

Batch	Species	Grp #	Fish Total	Bulk Weight (g)	Presvd	Bag #	Sp Name/Remarks
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

Crew Leader (init. & last name): L KARLEWICZ

Crew: R.VITO | Recorder: LK

Field ID (init. & last name): L KARLEWICZ | Cert. Level: 1

Lab ID (init. & last name): | Cert. Level:

Entered/Scanned

Verified

Corrected

Site Features

Mandatory Fields In Grey
Must be filled out for processing

Stream Code	Site Code	Sample	Date (mm-dd)
TM	TM02	01	2016 05-27

Stream Name: TWENTY MILE

For each landuse, check box that applies. Be sure to include comments explaining the particulars, including names and numbers of contacts

Site Features	Ongoing & Active	Historical Evidence	No Evidence but Reported	No Evidence	Unknown	Comments
Potential Point or Non-point Source Contaminant Sources	☒	☐	☐	☐	☐	AG
Major Nutrient Sources Upstream	☒	☐	☐	☐	☐	AG
Channel Hardening or Straightening	☒	☐	☐	☐	☐	STRAIGHTENED
Adjacent Landuses that Destabilize Banks	☐	☐	☐	☒	☐	
Sediment Loading or Deprivation	☐	☐	☐	☒	☐	
Instream Habitat Modifications	☐	☐	☐	☒	☐	
Barriers and/or Dams in the Vicinity of the Site	☐	☐	☐	☒	☐	
High Fishing Pressure	☐	☐	☐	☒	☐	
Log Jam Deflectors	☒	☐	☐	☐	☐	MINOR
Springs or Seeps at the Site	☐	☐	☐	☒	☐	
Impervious Substrate Limiting Burrowing Depth of Fish	☐	☐	☐	☒	☐	
Fish Stocked Near Sample Site	☐	☐	☐	☒	☐	
Other Activities that Could Influence Biota or Habitat	☐	☐	☐	☒	☐	

Sources of Information
Visual Immediate ☐ Visual Extended ☐ Interview ☐ Maps & Photos ☐

Temperatures
Time (24hr): 12:00
Air Temp (°C): 30
Water Temp (°C): 25
Max Air Temp (°C):
Max. Water Temp (°C):
Source of Max. Air Temp:

Riparian Vegetation Community
Only check one box for each bank and zone.

Dominant Vegetation Type

Riparian Zone	Left Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands	Right Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands
1.5-10m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐
10-30m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
30-100m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐

Comments

Crew Leader (initial & last name)	Crew Initials	Recorder	Ent/Scanned	Verified	Corrected
L KARLEWICZ	K.V(?)D	LK			

Benthic Survey Sheet

Mandatory Fields In Grey
Must be filled out for processing

Stream Code: TM
Site Code: TM02
Sample: 01
Date (mm-dd): 2016 05 27
Time (24hr): 12:30

Stream Name: TWENTY MILE

NOTE:
For all measurements, right and left banks defined facing upstream.

Water Quality

Water Temp (°C): 25.0
Conductivity (uS/cm): 1862
pH: 8.2
DO (mg/L): 83.0
Alkalinity (mg/L as CaCO3): .

Substrate

Enter dominant substrate class and second dominant class for each sub-sample.

	Collect. Area 1	Collect. Area 2	Collect. Area 3
Dominant	2	2	2
2nd Dominant	1	1	1

Class	Description
1	Clay (hard pan)
2	Silt (floury, <0.06 mm particle diameter)
3	Sand (grainy, 0.06 - 2mm)
4	Gravel (2 - 65 mm)
5	Cobble (65 - 250 mm)
6	Boulder (>250 mm)
7	Bed Rock

Bankfull Width (m): 6.2

Gear Type
- ☐ Poled Seine
- ☐ Ponar
- ☒ D-Net
- ☐ Ekman
- ☐ Surber
- ☐ Other :

Collection Method
- ☐ Rapid Survey
- ☐ Stationary Kick Survey
- ☒ Transect Kick & Sweep
- ☐ Grab

MeshSize (microns)
- ☐ 250
- ☐ 600
- ☒ 500
- ☐ 1000

(Select the box that most closely represents the mesh size used.)

% Canopy Cover
- ☒ 0 - 24
- ☐ 50 - 74
- ☐ 25 - 49
- ☐ 75 - 100

River Characterization
- ☐ Perennial
- ☒ Intermittent
- ☐ Unknown

Candidate Reference Site? (ie. minimally impacted)
- ☐ Yes
- ☒ No

If instrument used, record type:

Comments

Crew Leader (initial & last name): L KARLEWICZ

Aquatic Macrophytes & Algae

Enter appropriate abundance class for each type and sub-sample.

Macrophytes	Collect. Area 1	Collect. Area 2	Collect. Area 3
Emergent	1	1	1
Rooted Floating	0	0	0
Submergent	1	1	1
Free Floating	0	0	0

Algae	Collect. Area 1	Collect. Area 2	Collect. Area 3
Floating Algae	2	2	2
Filamentous	1	1	1
Attached Algae	0	0	0

Class	Descr
0	Absen
1	Prese
2	Abunc

Riparian Vegetation Community

Only check one box for each bank and zone.

Dominant Vegetation Type

Riparian Zone	Left Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands	Right Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands
1.5-10m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐
10-30m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
30-100m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐

	Pool or Riffle (P/R)	Sampling Dist.(m)	Sampling Time (min : sec)	Max. Depth (mm)	Hydraulic Head (mm)	Wetted Width (m)	Grabs/Area
Collection Area 1:	R	1.0	1:00	500	0	2.1	
Collection Area 2:	P	1.0	1:00	540	0	2.0	
Collection Area 3:	R	1.0	1:06	490	0	1.9	

Enter a P or an R to indicate whether the collection was a riffle or pool.

1, 2, or 3 grabs can be collected within each collection area.

Pebble sizes (mm) use sizes from table 2

Crew Names: R.VITO

Recorder Init. Entered	Verified	Corrected
LK		

Site Features

Mandatory Fields In Grey
Must be filled out for processing

Stream Code	Site Code	Sample	Date (mm-dd)
TM	7M03	01	2016 05-30

Stream Name: TWENTY MILE

For each landuse, check box that applies. Be sure to include comments explaining the particulars, including names and numbers of contacts

Site Features	Ongoing & Active	Historical Evidence	No Evidence but Reported	No Evidence	Unknown	Comments
Potential Point or Non-point Source Contaminant Sources	☒	☐	☐	☐	☐	AG
Major Nutrient Sources Upstream	☒	☐	☐	☐	☐	AG
Channel Hardening or Straightening	☒	☐	☐	☐	☐	STRAIGHTENED
Adjacent Landuses that Destabilize Banks	☐	☐	☐	☒	☐	
Sediment Loading or Deprivation	☐	☐	☐	☒	☐	
Instream Habitat Modifications	☐	☐	☐	☒	☐	
Barriers and/or Dams in the Vicinity of the Site	☐	☐	☐	☒	☐	
High Fishing Pressure	☐	☐	☐	☒	☐	
Log Jam Deflectors	☐	☐	☐	☒	☐	
Springs or Seeps at the Site	☐	☐	☐	☒	☐	
Impervious Substrate Limiting Burrowing Depth of Fish	☐	☐	☐	☒	☐	
Fish Stocked Near Sample Site	☐	☐	☐	☒	☐	
Other Activities that Could Influence Biota or Habitat	☐	☐	☐	☒	☐	

Sources of Information

Visual Immediate ☐ Visual Extended ☐ Interview ☐ Maps & Photos ☐

Temperatures

Time (24hr)	Air Temp (°C)
10:00	25

Water Temp (°C)	Max Air Temp (°C)
22	

Max. Water Temp (°C)	Source of Max. Air Temp

Riparian Vegetation Community

Only check one box for each bank and zone.

Dominant Vegetation Type

Riparian Zone	Left Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands	Right Bank: None	Lawn	Crop-land	Mea-dow	Scrub-land	Forest	Wet-lands
1.5-10m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
10-30m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐
30-100m	☐	☐	☒	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐

Comments

Crew Leader (initial & last name)	Crew Initials	Recorder	Ent/Scanned	Verified	Corrected
L KARLEWICZ	R. VITO				

	FUNCTIONAL GROU		1	2	3	Sum	1	2	3	Sum	1	2	3	Sum	1	2	3	Sum	1	2	3	Sum
	G-C	10	21	31	23	75	12	32		44				0		21		21	20	2	11	33
						0				0				0				0				0
						0				0				0				0				0
	G-C	4				0				0	4	5	6	15				0				0
						0				0				0				0				0
	G-C	8				0	7	6	3	16			4	4	8	2	1	11	8	5		13
						0				0				0				0				0
						0				0				0				0				0
	G-C, scr,	4	2			2				0				0			1	1		2		2
						0				0				0				0				0
	Pred	0				0				0			6	6				0				0
						0				0				0				0				0
	Pred	9	2			2			2	2				0				0				0
						0				0				0				0				0
	G-C, Pred	6	43	72	78	193	78	73	98	249	50	38	88	176	90	84	103	277	78	96	94	268
ver	Pred	8				0				0				0	4			4				0
er	Shr, G-C	3				0				0				0			1	1				0
						0				0				0				0				0
						0				0				0				0				0
r	Scr	6	6			6				0				0				0		2		2
r	Scr	8	32			32	5			5				0	4		1	5	3			3
						0				0				0				0				0
	G-C	8	12			12				0				0				0				0

Organisms	322	316	201	320	321
	7	5	4	7	6
	23.29	13.92	0.00	6.56	10.28
	59.94	78.80	87.56	88.13	83.49
	59.94	78.80	87.56	86.56	83.49
	0.00	5.06	1.99	3.44	4.05
	0.01	0.00	0.00	0.00	0.01
	0.00	0.00	0.00	0.00	0.00
	87.58	97.78	97.01	97.19	98.44
	60.56	79.43	90.55	87.81	83.49
	12.42	1.58	0.00	1.88	2.18
	0.00	0.00	0.00	0.31	0.00
	0.62	0.00	2.99	0.31	0.62
r Diversity	0.49	0.31	0.21	0.25	0.27
	7.21	6.71	5.71	6.37	6.50

	ATI(			TM01				TM02				TM03				ST01				ST02			
TAXA LIST	PLIC H/	F	E	1	2	3	Sum	1	2	3	Sum	1	2	3	Sum	1	2	3	Sum	1	2	3	Sum
P. ANNELIDA																							
Cl. Oligocha	n/	G		21	31	23	75	12	32		44				0		21		21	20	2	11	33
P. ARTHROPODA							0				0				0				0				0
O. Amphipoda							0				0				0				0				0
Gamm	S\	G					0				0	4	5	6	15				0				0
O. Isopoda							0				0				0				0				0
Asellic	S|	G					0	7	6	3	16			4	4	8	2	1	11	8	5		13
Cl. Insecta							0				0				0				0				0
O. Ephemeroptera							0				0				0				0				0
Baetic	C	G		2			2				0				0			1	1		2		2
O. Megaloptera							0				0				0				0				0
Coryd	C	P					0				0			6	6				0				0
O. Odonata							0				0				0				0				0
Lestid	C	P		2			2			2	2				0				0				0
O. Diptera							0				0				0				0				0
Chiror	B	G		43	72	78	193	78	73	98	249	50	38	88	176	90	84	103	277	78	96	94	268
Taban	S|	P					0				0				0	4			4				0
Tipuli	B	S					0				0				0			1	1				0
P. MOLLUSCA							0				0				0				0				0
Cl. Gastropoda							0				0				0				0				0
Lymna	B	S		6			6				0				0				0		2		2
Physi	B	S		32			32	5			5				0	4		1	5	3			3
Cl. Bivalvia							0				0				0				0				0
Sphae	B	G		12			12				0				0				0				0

	TM01	TM02	TM03	ST01	ST02
Total Number of O	322	316	201	320	321
Shannon Index	0.49	0.31	0.21	0.25	0.27
pi*logPi	-0.1	-0.1		-0.1	-0.1
			-0.1		
		-0.1	-0	-0.1	-0.1
	-0			-0	-0
			-0		
	-0	-0			
	-0.1	-0.1	-0.1	-0.1	-0.1
				-0	
				-0	
	-0				-0
	-0.1	-0		-0	-0
	-0.1				

TAXA LIST	STATIO / EPLICAT / HAI	FUI	FBI	TM01 1	TM01 2	TM01 3	TM01 Sum	TM02 1	TM02 2	TM02 3	TM02 Sum	TM03 1	TM03 2	TM03 3	TM03 Sum	ST01 1	ST01 2	ST01 3	ST01 Sum	ST02 1	ST02 2	ST02 3	ST02 Sum
P. ANNELIDA																							
Cl. Oligochae	n/a	G-C	10	21	31	23	75	12	32		44				0		21		21	20	2	11	33
P. ARTHROPODA							0				0				0				0				0
O. Amphipoda							0				0				0				0				0
Gar	Swi	G-C	4				0				0	4	5	6	15				0				0
O. Isopoda							0				0				0				0				0
Ase	Spr	G-C	8				0	7	6	3	16			4	4	8	2	1	11	8	5		13
Cl. Insecta							0				0				0				0				0
O. Ephemeroptera							0				0				0				0				0
Bae	Clin	G-C	4	2			2				0				0			1	1		2		2
O. Megaloptera							0				0				0				0				0
Cor	Clin	Pre	0				0				0			6	6				0				0
O. Odonata							0				0				0				0				0
Les	Clin	Pre	9	2			2			2	2				0				0				0
O. Diptera							0				0				0				0				0
Chi	Bur	G-C	6	43	72	78	193	78	73	98	249	50	38	88	176	90	84	103	277	78	96	94	268
Tab	Spr	Pre	8				0				0				0	4			4				0
Tip	Bur	Shr	3				0				0				0			1	1				0
P. MOLLUSCA							0				0				0				0				0
Cl. Gastropoda							0				0				0				0				0
Lyn	Bur	Scr	6	6			6				0				0				0		2		2
Phy	Bur	Scr	8	32			32	5			5				0	4		1	5	3			3
Cl. Bivalvia							0				0				0				0				0
Spl	Bur	G-C	8	12			12				0				0				0				0

	TM01	TM02	TM03	ST01	ST02
Total Number of Orga	322	316	201	320	321
HBI	7.2	6.7	5.7	6.4	6.5
	0	0	0	0	0
	2.33	1.4	0	0.66	1.03
	0	0	0	0	0
	0	0	0	0	0
	0	0	0.3	0	0
	0	0	0	0	0
	0	0.4	0.2	0.28	0.32
	0	0	0	0	0
	0	0	0	0	0
	0.02	0	0	0.01	0.02
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0.06	0.1	0	0	0
	0	0	0	0	0
	3.6	4.7	5.3	5.19	5.01
	0	0	0	0.1	0
	0	0	0	0.01	0
	0	0	0	0	0
	0	0	0	0	0
	0.11	0	0	0	0.04
	0.8	0.1	0	0.13	0.07
	0	0	0	0	0
	0.3	0	0	0	0

	TM01	TM02	TM03	ST01	ST02
Total Number of Organisms	322	316	201	320	321
Taxa Richness	7	5	4	7	6
% Oligochaeta	23.29	13.92	0	6.563	10.28
% Diptera	59.94	78.8	87.562	88.13	83.49
% Chironomidae	59.94	78.8	87.562	86.56	83.49
% Isopoda	0	5.063	1.99	3.438	4.05
% EPT	0.006	0	0	0.003	0.006
% F-C	0	0	0	0	0
% G-C	87.58	97.78	97.015	97.19	98.44
% Pred	60.56	79.43	90.547	87.81	83.49
% Scr	12.42	1.582	0	1.875	2.181
% Shr	0	0	0	0.313	0
% Clinger	0.621	0	2.9851	0.313	0.623
Shannon-Weiner Diversity	0.493	0.309	0.214	0.25	0.27
FBI	7.211	6.709	5.7114	6.372	6.498

	TM01	TM02	TM03	ST01	ST02
Total Number of Organisms	322	316	201	320	321
Taxa Richness	7	5	4	7	6
% Oligochaeta	23.29	13.92	0.00	6.56	10.28
% Diptera	59.94	78.80	87.56	88.13	83.49
% Chironomidae	59.94	78.80	87.56	86.56	83.49
% Isopoda	0.00	5.06	1.99	3.44	4.05
% EPT	0.01	0.00	0.00	0.00	0.01
% F-C	0.00	0.00	0.00	0.00	0.00
% G-C	87.58	97.78	97.01	97.19	98.44
% Pred	60.56	79.43	90.55	87.81	83.49
% Scr	12.42	1.58	0.00	1.88	2.18
% Shr	0.00	0.00	0.00	0.31	0.00
% Clinger	0.62	0.00	2.99	0.31	0.62
Shannon-Weiner Diversity	0.49	0.31	0.21	0.25	0.27
FBI	7.21	6.71	5.71	6.37	6.50

Indicates best water quality
Indicates second best water quality
Indicates worst water quality