

APPENDIX A

Example Data from the Site 11 Pressure Transducer

Water Level (stage) and Water Temperature Data

Deployment from 11/4/09 through 12/10/09

2 of 101 Data Pages Provided

Data Collection No.	Date	Time	100 ms	Stage	Temperature	Date
1	11/4/2009	11:02:26	0			11/4/09 11:02
2	11/4/2009	11:12:26	0	0.8521	8.3	11/4/09 11:12
3	11/4/2009	11:22:26	0	0.8427	7.9	11/4/09 11:22
4	11/4/2009	11:32:26	0	0.8441	7.9	11/4/09 11:32
5	11/4/2009	11:42:26	0	0.8412	7.9	11/4/09 11:42
6	11/4/2009	11:52:26	0	0.8421	8	11/4/09 11:52
7	11/4/2009	12:02:26	0	0.8455	8.1	11/4/09 12:02
8	11/4/2009	12:12:26	0	0.8487	8.2	11/4/09 12:12
9	11/4/2009	12:22:26	0	0.8466	8.3	11/4/09 12:22
10	11/4/2009	12:32:26	0	0.8482	8.4	11/4/09 12:32
11	11/4/2009	12:42:26	0	0.8492	8.5	11/4/09 12:42
12	11/4/2009	12:52:26	0	0.8501	8.6	11/4/09 12:52
13	11/4/2009	13:02:26	0	0.8566	8.7	11/4/09 13:02
14	11/4/2009	13:12:26	0	0.8569	8.8	11/4/09 13:12
15	11/4/2009	13:22:26	0	0.8555	8.9	11/4/09 13:22
16	11/4/2009	13:32:26	0	0.8534	8.9	11/4/09 13:32
17	11/4/2009	13:42:26	0	0.8595	9	11/4/09 13:42
18	11/4/2009	13:52:26	0	0.8524	9.1	11/4/09 13:52
19	11/4/2009	14:02:26	0	0.8547	9.2	11/4/09 14:02
20	11/4/2009	14:12:26	0	0.8611	9.2	11/4/09 14:12
21	11/4/2009	14:22:26	0	0.8597	9.3	11/4/09 14:22
22	11/4/2009	14:32:26	0	0.8557	9.3	11/4/09 14:32
23	11/4/2009	14:42:26	0	0.8581	9.4	11/4/09 14:42
24	11/4/2009	14:52:26	0	0.8584	9.4	11/4/09 14:52
25	11/4/2009	15:02:26	0	0.8575	9.4	11/4/09 15:02
26	11/4/2009	15:12:26	0	0.8573	9.5	11/4/09 15:12
27	11/4/2009	15:22:26	0	0.8596	9.5	11/4/09 15:22
28	11/4/2009	15:32:26	0	0.8588	9.5	11/4/09 15:32
29	11/4/2009	15:42:26	0	0.8564	9.5	11/4/09 15:42
30	11/4/2009	15:52:26	0	0.8548	9.4	11/4/09 15:52
31	11/4/2009	16:02:26	0	0.8564	9.4	11/4/09 16:02
32	11/4/2009	16:12:26	0	0.8533	9.4	11/4/09 16:12
33	11/4/2009	16:22:26	0	0.8546	9.4	11/4/09 16:22
34	11/4/2009	16:32:26	0	0.8568	9.4	11/4/09 16:32
35	11/4/2009	16:42:26	0	0.8584	9.3	11/4/09 16:42
36	11/4/2009	16:52:26	0	0.8557	9.3	11/4/09 16:52
37	11/4/2009	17:02:26	0	0.8564	9.3	11/4/09 17:02
38	11/4/2009	17:12:26	0	0.8549	9.3	11/4/09 17:12
39	11/4/2009	17:22:26	0	0.8591	9.2	11/4/09 17:22
40	11/4/2009	17:32:26	0	0.8572	9.2	11/4/09 17:32
41	11/4/2009	17:42:26	0	0.8573	9.1	11/4/09 17:42
42	11/4/2009	17:52:26	0	0.8582	9.1	11/4/09 17:52
43	11/4/2009	18:02:26	0	0.8567	9	11/4/09 18:02
44	11/4/2009	18:12:26	0	0.8602	9	11/4/09 18:12
45	11/4/2009	18:22:26	0	0.8606	9	11/4/09 18:22
46	11/4/2009	18:32:26	0	0.8575	8.9	11/4/09 18:32
47	11/4/2009	18:42:26	0	0.8578	8.9	11/4/09 18:42
48	11/4/2009	18:52:26	0	0.8551	8.8	11/4/09 18:52
49	11/4/2009	19:02:26	0	0.8552	8.8	11/4/09 19:02
50	11/4/2009	19:12:26	0	0.8561	8.7	11/4/09 19:12
51	11/4/2009	19:22:26	0	0.8546	8.7	11/4/09 19:22
52	11/4/2009	19:32:26	0	0.8538	8.7	11/4/09 19:32

Data Collection No.	Date	Time	100 ms	Stage	Temperature	Date
53	11/4/2009	19:42:26	0	0.855	8.6	11/4/09 19:42
54	11/4/2009	19:52:26	0	0.8551	8.6	11/4/09 19:52
55	11/4/2009	20:02:26	0	0.8548	8.5	11/4/09 20:02
56	11/4/2009	20:12:26	0	0.8532	8.5	11/4/09 20:12
57	11/4/2009	20:22:26	0	0.8524	8.5	11/4/09 20:22
58	11/4/2009	20:32:26	0	0.8552	8.4	11/4/09 20:32
59	11/4/2009	20:42:26	0	0.8537	8.4	11/4/09 20:42
60	11/4/2009	20:52:26	0	0.8526	8.4	11/4/09 20:52
61	11/4/2009	21:02:26	0	0.8551	8.3	11/4/09 21:02
62	11/4/2009	21:12:26	0	0.8548	8.3	11/4/09 21:12
63	11/4/2009	21:22:26	0	0.8529	8.3	11/4/09 21:22
64	11/4/2009	21:32:26	0	0.8506	8.3	11/4/09 21:32
65	11/4/2009	21:42:26	0	0.8505	8.3	11/4/09 21:42
66	11/4/2009	21:52:26	0	0.854	8.2	11/4/09 21:52
67	11/4/2009	22:02:26	0	0.8535	8.2	11/4/09 22:02
68	11/4/2009	22:12:26	0	0.8526	8.2	11/4/09 22:12
69	11/4/2009	22:22:26	0	0.8532	8.2	11/4/09 22:22
70	11/4/2009	22:32:26	0	0.852	8.2	11/4/09 22:32
71	11/4/2009	22:42:26	0	0.8538	8.1	11/4/09 22:42
72	11/4/2009	22:52:26	0	0.8497	8.1	11/4/09 22:52
73	11/4/2009	23:02:26	0	0.8517	8.1	11/4/09 23:02
74	11/4/2009	23:12:26	0	0.8482	8.1	11/4/09 23:12
75	11/4/2009	23:22:26	0	0.8491	8.1	11/4/09 23:22
76	11/4/2009	23:32:26	0	0.852	8.1	11/4/09 23:32
77	11/4/2009	23:42:26	0	0.8504	8.1	11/4/09 23:42
78	11/4/2009	23:52:26	0	0.8503	8	11/4/09 23:52
79	11/5/2009	0:02:26	0	0.8514	8	11/5/09 0:02
80	11/5/2009	0:12:26	0	0.8534	8	11/5/09 0:12
81	11/5/2009	0:22:26	0	0.8498	8	11/5/09 0:22
82	11/5/2009	0:32:26	0	0.8506	8	11/5/09 0:32
83	11/5/2009	0:42:26	0	0.8515	8	11/5/09 0:42
84	11/5/2009	0:52:26	0	0.8539	8	11/5/09 0:52
85	11/5/2009	1:02:26	0	0.8536	8	11/5/09 1:02
86	11/5/2009	1:12:26	0	0.8534	8	11/5/09 1:12
87	11/5/2009	1:22:26	0	0.8539	8	11/5/09 1:22
88	11/5/2009	1:32:26	0	0.855	8	11/5/09 1:32
89	11/5/2009	1:42:26	0	0.8557	8	11/5/09 1:42
90	11/5/2009	1:52:26	0	0.8552	8	11/5/09 1:52
91	11/5/2009	2:02:26	0	0.8518	7.9	11/5/09 2:02
92	11/5/2009	2:12:26	0	0.855	7.9	11/5/09 2:12
93	11/5/2009	2:22:26	0	0.8517	7.9	11/5/09 2:22
94	11/5/2009	2:32:26	0	0.8544	7.9	11/5/09 2:32
95	11/5/2009	2:42:26	0	0.8563	7.9	11/5/09 2:42
96	11/5/2009	2:52:26	0	0.8535	7.9	11/5/09 2:52
97	11/5/2009	3:02:26	0	0.8504	7.9	11/5/09 3:02
98	11/5/2009	3:12:26	0	0.8525	7.9	11/5/09 3:12
99	11/5/2009	3:22:26	0	0.8522	7.9	11/5/09 3:22
100	11/5/2009	3:32:26	0	0.8542	7.8	11/5/09 3:32
101	11/5/2009	3:42:26	0	0.8542	7.8	11/5/09 3:42
102	11/5/2009	3:52:26	0	0.8568	7.8	11/5/09 3:52
103	11/5/2009	4:02:26	0	0.8554	7.8	11/5/09 4:02
104	11/5/2009	4:12:26	0	0.854	7.7	11/5/09 4:12

APPENDIX B

Photographs of Site 1 Through Site 4 on the Unnamed Tributary

Habitat Assessments, Macroinvertebrate Sampling, and
Substrate Embeddedness Surveys

Site 1 - Habitat Assessment Reach.

Wetland at Site 1: Photo 15.



Site 1 - Habitat Assessment Reach.

Stream channel is hidden from view by wetland vegetation: Photo 16.



Site 1 - Habitat Assessment Reach.
Looking upstream at Site 1: Photo 17.



Site 1 - Habitat Assessment Reach.
Little or no flow at some locations in the Site 1 reach: Photo 18.



Site 1 - Habitat Assessment Reach.
Visible stream channel at Site 1: Photo 19.



Site 2 - Habitat Assessment Reach.

Stream channel, looking downstream, at Site 2: Photo 8.

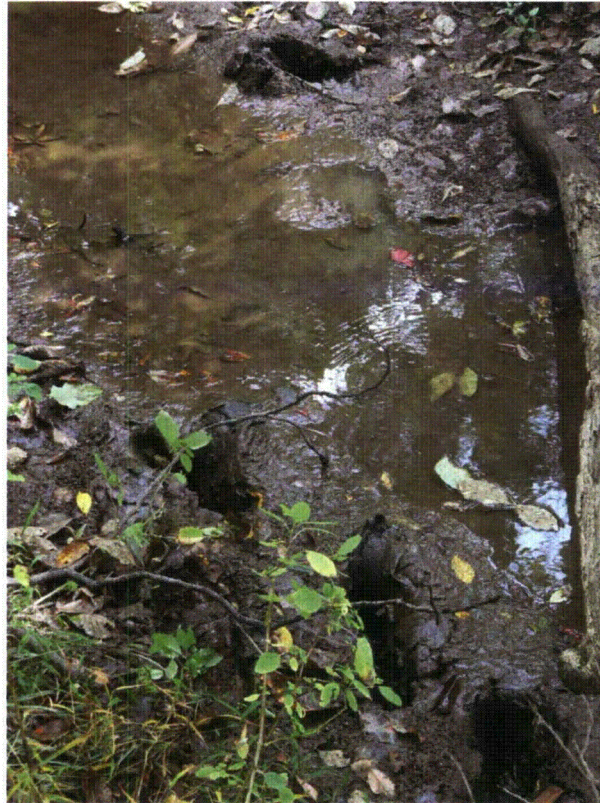


Site 2 - Habitat Assessment Reach.

Stream channel, facing upstream, at Site 2: Photo 9.



Site 2 - Habitat Assessment Reach.
Silt channel bottom at Site 2: Photo 10.



Site 2 - Habitat Assessment Reach.
Highly embedded stream channel substrate at Site 2: Photo 11.



Site 2 - Habitat Assessment Reach.

Close-up view of silt and sand stream channel bottom at Site 2: Photo 12.



Site 2 - Habitat Assessment Reach.

Stream channel at site 2, facing upstream: Photo 13.



Site 2 - Habitat Assessment Reach.

Stream channel, facing upstream, at Site 2: Photo 14.



Site 3 - Habitat Assessment Reach.
Stream channel at Site 3: Photo 1.



Site 3 - Habitat Assessment Reach.
Silt and sand stream bottom at Site 3: Photo 3.



Site 3 - Habitat Assessment Reach.

Stream channel, looking upstream, at Site 3: Photo 2.



Site 3 - Habitat Assessment Reach.

Close-up of stream channel, looking upstream, at Site 3: Photo 5.



Site 3 - Habitat Assessment Reach.

Stream channel, looking upstream, at Site 3: Photo 4.



Site 3 - Habitat Assessment Reach.

Stream channel, looking downstream, at Site 3: Photo 6.



Site 3 - Habitat Assessment Reach.
Close-up of stream channel at Site 3: Photo 7.



Site 4 - Habitat Assessment Reach.
Stream channel at Site 4, facing upstream: Photo 20.



Site 4 - Habitat Assessment Reach.
Stream channel substrate at Site 4: Photo 21.



Site 4 - Habitat Assessment Reach.
Stream channel at Site 4: Photo 22.



Site 4 - Habitat Assessment Reach.
Wetland vegetation covering stream channel at Site 4: Photo 23.



Site 4 - Habitat Assessment Reach.
Stream at Site 4: Photo 24.



APPENDIX C

Photographs of the Lower and Upper Sites on the Unnamed Tributary 2

Habitat Assessments, Macroinvertebrate Sampling, and
Substrate Embeddedness Surveys

Unnamed Tributary 2 - Lower Site



Downstream of the headcut.



Downstream of the headcut.

Unnamed Tributary 2 - Lower Site



Silt and organic stream substrate downstream of the headcut.



Typical stream substrate downstream of the headcut.

Unnamed Tributary 2 - Lower Site

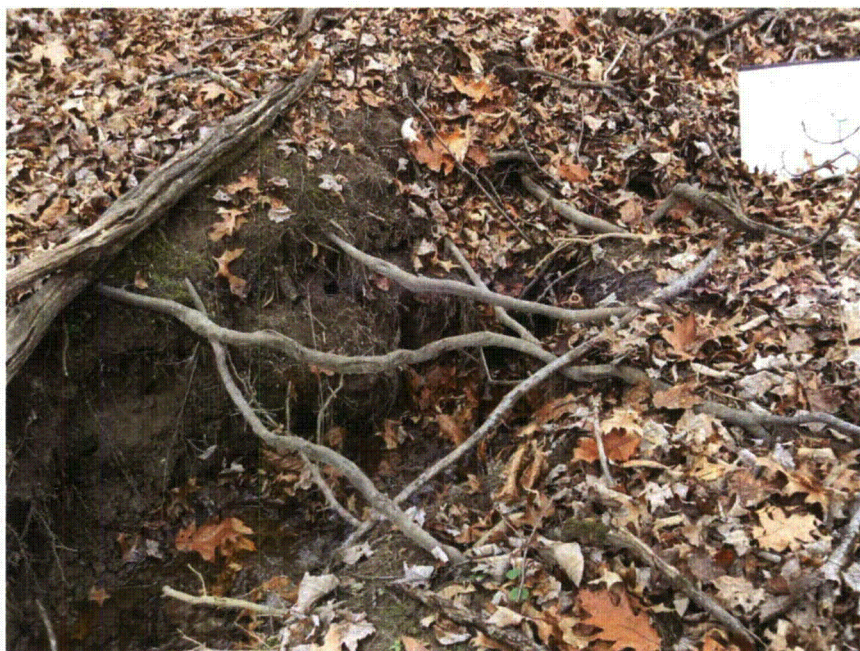


Headcut, working its way upstream.



Eroding bank just downstream of the headcut.

Unnamed Tributary 2 - Lower Site



Upper limit of the headcut. Stream goes underground above this.



Stream flows underground at this point, just upstream of the headcut and then re-emerges downstream of the headcut.

Unnamed Tributary 2 - Lower Site



Stream channel upstream of the headcut.



Stream substrate typical of this section of stream.

Unnamed Tributary 2 - Lower Site



Stream channel upstream of the headcut.



Downed trees across the stream, upstream of the headcut.

Unnamed Tributary 2 - Lower Site

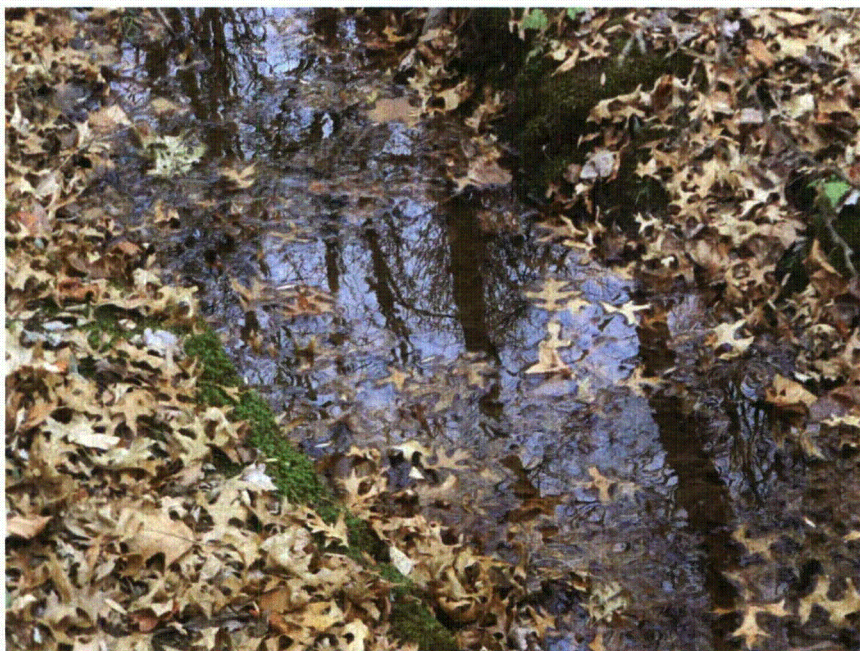


Outlet pipe that connects UNT2 - Upper Site to UNT2 - Lower Site. The stream is piped under the cropfield between the lower and upper sites.

Unnamed Tributary 2 - Upper Site



Stream reach between pipe inlet and the upper site headcut.



Reach between the pipe inlet and the headcut.

Unnamed Tributary 2 - Upper Site



Reach between the pipe inlet and the head cut.



Typical stream substrate found within the reach.

Unnamed Tributary 2 - Upper Site



Stream channel cutting under tree roots and eroding bank material.



Tree in above photo, showing channel meander.

Unnamed Tributary 2 - Upper Site



Small debris jam.



Eroding streambank in the upper reach.

Unnamed Tributary 2 - Upper Site



Two of the three headcuts where the stream emerges from underground flow.



The third headcut, near the other two, where the stream emerges from underground flow.

Unnamed Tributary 2 - Upper Site



Clay at the headcut, where the stream emerges from underground flow.

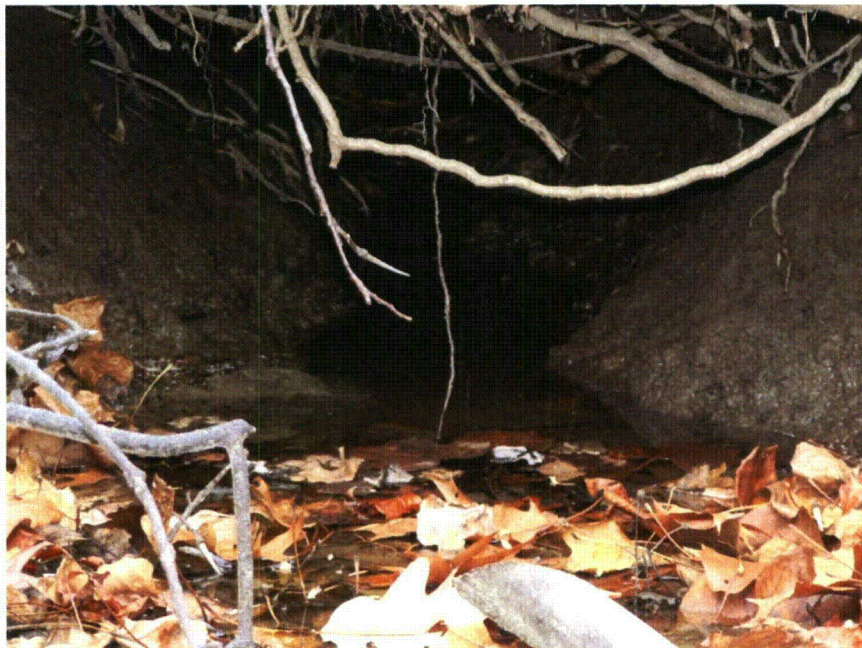


Another view of the headcut where the stream emerges.

Unnamed Tributary 2 - Upper Site



Silt and clay at the headcut, where the stream emerges.



Another view of the headcut where the stream emerges.