

APPENDIX TABLES

Appendix A. Swan Creek Qualitative Habitat Evaluation Index (QHEI) tables, 2006.

Appendix B. Fish field data for the Swan Creek watershed listed by river mile, 2006.

Appendix C. Fish scores for the Index of Biotic Integrity (IBI) and the Modified Index of well being (MIwb) for the Swan Creek watershed, 2006.

Appendix D. Invertebrate Community Index (ICI) scores with field taxa lists arranged by river mile and the date of collection for the Swan Creek watershed, 2006.

Appendix E. Chemical water quality tables for stations sampled in the Swan Creek watershed, 2006.

Appendix F. Mechanisms for water quality impairment.

Appendix A

Swan Creek Basin QHEI Tables 2006

WWH Attributes

MWH Attributes

Key
QHEI
Components

- No Channelization or Recovered Boulder/Cobble/Gravel Substrates
- Silt Free Substrates
- Good/Excellent Substrates
- Moderate/High Sinuosity
- Extensive/Moderate Cover
- Fast Current/Eddies
- Low-Normal Overall Emergence
- Max Depth > 40 cm
- Low-Normal Riffle Embeddedness

High Influence

Moderate Influence

- Total WWH Attributes

- Channelized or No Recovery Silt/Muck Substrates
- No Sinuosity
- Sparse/No Cover
- Max Depth < 40 cm (WD, HW)
- Total HLL MWH Attributes

- Recovering Channel
- Heavy/Moderate Silt Cover
- Sand Substrates (Boat)
- Harsh Substrate Origin
- Fair/Poor Development
- Low Sinuosity
- Only 1-2 Cover Types
- Intermittent and Poor Pools
- No Fast Current
- High/Mod. Overall Embeddedness
- High/Mod. Riffle Embeddedness
- No Riffle

Total MLL MWH Attributes
(MWH-HL+1)/(WWH+1) Ratio
(MWH-ML+1)/(MWH+1) Ratio

River Mile	QHEI	Gradient (ft/mile)	WWH Attributes	Total WWH Attributes	High Influence	Moderate Influence	Total MLL MWH Attributes	(MWH-HL+1)/(WWH+1) Ratio	(MWH-ML+1)/(MWH+1) Ratio
(04-003) Swan Creek									
Year: 2006									
40.7	48.0	11.63	■	3	◆	●	6	0.75	2.25
34.4	44.5	8.20	■	2	◆	●	6	1.33	3.33
32.9	44.5	3.14	■	4	◆	●	5	0.60	1.60
30.9	43.5	5.75	■	3	◆	●	5	0.75	2.00
24.7	40.0	4.50	■	2	◆	●	6	1.00	3.00
21.6	41.0	1.46	■	3	◆	●	7	0.75	2.50
18.5	66.5	1.46	■	9	◆	●	0	0.20	0.20
15.3	38.0	1.75	■	3	◆	●	6	0.75	2.25
10.8	63.0	2.69	■	5	◆	●	6	0.17	1.17
4.4	43.5	0.10	■	2	◆	●	6	1.00	3.00
4.2	74.5	2.01	■	8	◆	●	2	0.11	0.33
1.4	34.0	0.10	■	2	◆	●	6	1.00	3.00
(04-004) Wolf Creek									
Year: 2006									
4.1	45.0	7.35	■	3	◆	●	6	0.50	2.00
2.0	40.0	4.72	■	2	◆	●	5	1.33	3.00
0.5	45.0	6.76	■	3	◆	●	6	0.75	2.25
0.5	43.5	6.76	■	2	◆	●	7	0.67	3.00
(04-005) Cairl Creek									
Year: 2006									
1.3	35.5	6.94	■	3	◆	●	6	1.00	2.50
(04-006) Blue Creek									
Year: 2006									
10.0	29.5	2.65	■	2	◆	●	6	1.33	3.33
7.8	37.5	2.59	■	3	◆	●	5	1.25	2.50
5.5	24.0	3.13	■	1	◆	●	7	2.00	5.50
0.8	29.0	4.76	■	2	◆	●	7	1.00	3.33
(04-008) Harris Ditch									
Year: 2006									
1.6	28.5	4.17	■	1	◆	●	5	2.50	5.00
(04-010) Ai Creek									
Year: 2006									
10.5	26.5	4.50	■	1	◆	●	7	2.00	5.50

Key
QHEI
Components

WWH Attributes

MWH Attributes

River Mile	QHEI	Gradient (ft/mile)	WWH Attributes										MWH Attributes										Total MLL MWH Attributes	(MWH HL+1)/(WWH+1) Ratio	(MWH ML+1)/(MWH+1) Ratio						
			No Channelization or Recovered Boulder/Cobble/Gravel Substrates	Silt Free Substrates	Good/Excellent Substrates	Moderate/High Sinuosity	Extensive/Moderate Cover	Fast Current/Eddies	Low-Normal Overall Embeddedness	Max Depth > 40 cm	Low-Normal Riffle Embeddedness	Total WWH Attributes	Channelized or No Recovery Silt/Muck Substrates	No Sinuosity	Sparse/No Cover	Max Depth < 40 cm (WD, HW)	Total HLL MWH Attributes	Recovering Channel	Heavy/Moderate Silt Cover	Sand Substrates (Boat)	Harsh Substrate Origin	Fair/Poor Development				Low Sinuosity	Only 1-2 Cover Types	Intermittent and Poor Pools	No Fast Current	High/Mod. Overall Embeddedness	High/Mod. Riffle Embeddedness
(04-010) Ai Creek																															
Year: 2006																															
8.3	49.0	7.14	■		■	■			■		4	◆		◆		2	●		●		●	●	●	●	●	●	●	●	5	0.60	1.60
2.1	30.0	3.01						■			1	◆	◆	◆		3	●	●		●	●	●	●	●	●	●	●	●	7	2.00	5.50
1.7	26.5	3.01						■			1	◆	◆	◆		3	●		●	●	●	●	●	●	●	●	●	6	2.00	5.00	
(04-081) Blystone Ditch																															
Year: 2006																															
0.6	46.0	11.63	■		■			■			3	◆		◆		2	●		●		●	●	●	●	●	●	●	5	0.75	2.00	
(04-097) Fewless Creek																															
Year: 2006																															
1.8	24.0	6.02						■			1	◆	◆	◆	◆		4	●		●		●	●	●	●	●	●	5	2.50	5.00	

Appendix B
Swan Creek Fish Data 2006

Species List

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 40.70	Location: Co. Rd. 6-1	Date Range: 07/11/2006
Time Fished: 3109 sec	Drainage: 7.5 sq mi	Thru: 08/22/2006
Dist Fished: 0.30 km	Basin: Maumee River	Sampler Type: E
	No of Passes: 2	

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	139	139.00	10.11	0.17	7.79	1.23
Creek Chub	N	G	N	T	523	523.00	38.04	0.78	35.56	1.49
Common Shiner	N	I	S		193	193.00	14.04	0.20	8.88	1.01
Fathead Minnow	N	O	C	T	138	138.00	10.04	0.16	7.28	1.16
Bluntnose Minnow	N	O	C	T	12	12.00	0.87	0.02	0.68	1.25
Central Stoneroller	N	H	N		197	197.00	14.33	0.63	28.52	3.18
Green Sunfish	S	I	C	T	5	5.00	0.36	0.04	1.82	8.00
Johnny Darter	D	I	C		144	144.00	10.47	0.15	7.01	1.07
Orangethroat Darter	D	I	S		24	24.00	1.75	0.05	2.44	2.23
<i>Mile Total</i>					1,375	1,375.00		2.20		
<i>Number of Species</i>					9					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 34.40	Location: Co. Rd. 3	Date Range: 07/11/2006
Time Fished: 1794 sec	Drainage: 14.6 sq mi	Thru: 08/22/2006
Dist Fished: 0.30 km	Basin: Maumee River	Sampler Type: E
	No of Passes: 2	

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Central Mudminnow		I	C	T	2	2.00	0.55	0.01	0.47	6.00
Redfin Pickerel		P	M	P	11	11.00	3.02	0.23	8.97	20.91
White Sucker	W	O	S	T	33	33.00	9.07	0.23	9.11	7.07
Creek Chub	N	G	N	T	121	121.00	33.24	1.34	52.29	11.08
Common Shiner	N	I	S		51	51.00	14.01	0.18	7.02	3.53
Bluntnose Minnow	N	O	C	T	11	11.00	3.02	0.03	1.25	2.91
Central Stoneroller	N	H	N		63	63.00	17.31	0.37	14.43	5.87
Green Sunfish	S	I	C	T	4	4.00	1.10	0.04	1.56	10.00
Bluegill Sunfish	S	I	C	P	4	4.00	1.10	0.02	0.78	5.00
Blackside Darter	D	I	S		1	1.00	0.27	0.00	0.08	2.00
Johnny Darter	D	I	C		34	34.00	9.34	0.03	1.33	1.00
Greenside Darter	D	I	S	M	9	9.00	2.47	0.04	1.56	4.44
Orangethroat Darter	D	I	S		20	20.00	5.49	0.03	1.17	1.50
<i>Mile Total</i>					364	364.00		2.56		
<i>Number of Species</i>					13					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 32.90	Location: Twp. Rd. 2	Date Range: 07/11/2006
Time Fished: 3462 sec	Drainage: 25.7 sq mi	Thru: 08/22/2006
Dist Fished: 0.30 km	Basin: Maumee River	Sampler Type: E
	No of Passes: 2	

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Central Mudminnow		I	C	T	5	5.00	3.52	0.08	3.80	16.00
Redfin Pickerel		P	M	P	26	26.00	18.31	0.46	21.85	17.69
White Sucker	W	O	S	T	8	8.00	5.63	0.72	33.97	89.38
Creek Chub	N	G	N	T	53	53.00	37.32	0.70	33.30	13.23
Common Shiner	N	I	S		11	11.00	7.75	0.03	1.43	2.73
Green Sunfish	S	I	C	T	2	2.00	1.41	0.01	0.48	5.00
Pumpkinseed Sunfish	S	I	C	P	1	1.00	0.70	0.04	1.90	40.00
Blackside Darter	D	I	S		4	4.00	2.82	0.02	0.95	5.00
Johnny Darter	D	I	C		27	27.00	19.01	0.04	2.00	1.56
Greenside Darter	D	I	S	M	4	4.00	2.82	0.01	0.24	1.25
Orangethroat Darter	D	I	S		1	1.00	0.70	0.00	0.10	2.00
<i>Mile Total</i>					142	142.00		2.11		
<i>Number of Species</i>					11					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 30.90	Location: upst. St. Rt. 64	Date Range: 07/11/2006
Time Fished: 2712 sec	Drainage: 28.2 sq mi	Thru: 08/22/2006
Dist Fished: 0.30 km	Basin: Maumee River	No of Passes: 2
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Central Mudminnow		I	C T	1	1.00	0.39	0.00	0.06	2.00
Redfin Pickerel		P	M P	15	15.00	5.86	0.30	8.65	20.27
Northern Pike	F	P	M	3	3.00	1.17	0.06	1.56	18.33
White Sucker	W	O	S T	12	12.00	4.69	0.63	17.78	52.08
Creek Chub	N	G	N T	65	65.00	25.39	1.83	51.93	28.09
Redfin Shiner	N	I	N	2	2.00	0.78	0.00	0.11	2.00
Common Shiner	N	I	S	80	80.00	31.25	0.19	5.40	2.38
Bluntnose Minnow	N	O	C T	20	20.00	7.81	0.06	1.59	2.80
Yellow Bullhead		I	C T	1	1.00	0.39	0.14	3.98	140.00
Tadpole Madtom		I	C	1	1.00	0.39	0.02	0.43	15.00
Largemouth Bass	F	C	C	1	1.00	0.39	0.01	0.28	10.00
Green Sunfish	S	I	C T	11	11.00	4.30	0.19	5.38	17.18
Bluegill Sunfish	S	I	C P	1	1.00	0.39	0.01	0.14	5.00
Redear Sunfish	E	I	C	1	1.00	0.39	0.02	0.43	15.00
Blackside Darter	D	I	S	10	10.00	3.91	0.04	1.19	4.20
Johnny Darter	D	I	C	24	24.00	9.38	0.03	0.77	1.13
Greenside Darter	D	I	S M	7	7.00	2.73	0.01	0.28	1.43
Orangethroat Darter	D	I	S	1	1.00	0.39	0.00	0.03	1.00
<i>Mile Total</i>				256	256.00		3.52		
<i>Number of Species</i>				18					
<i>Number of Hybrids</i>				0					

Species List

River Code: 04-003 River Mile: 24.70 Time Fished: 2384 sec Dist Fished: 0.40 km	Stream: Swan Creek Location: Spencer Rd. Drainage: 89.0 sq mi Basin: Maumee River	Sample Date: 2006 Date Range: 07/25/2006 Thru: 08/23/2006 Sampler Type: D
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Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M P	12	9.00	8.00	0.12	2.08	13.33
Northern Pike	F	P	M	1	0.75	0.67	0.06	1.04	80.00
White Sucker	W	O	S T	6	4.50	4.00	0.43	7.41	95.00
Spotted Sucker	R	I	S	4	3.00	2.67	0.89	15.48	297.50
Common Carp	G	O	M T	1	0.75	0.67	1.58	27.32	2,100.00
Redfin Shiner	N	I	N	11	8.25	7.33	0.03	0.49	3.36
Bluntnose Minnow	N	O	C T	2	1.50	1.33	0.01	0.13	5.00
Yellow Bullhead		I	C T	5	3.75	3.33	0.20	3.38	52.00
Rock Bass	S	C	C	30	22.50	20.00	1.11	19.19	49.17
Largemouth Bass	F	C	C	2	1.50	1.33	0.46	7.93	305.00
Green Sunfish	S	I	C T	51	38.25	34.00	0.72	12.49	18.82
Bluegill Sunfish	S	I	C P	14	10.50	9.33	0.14	2.34	12.86
Blackside Darter	D	I	S	3	2.25	2.00	0.02	0.34	8.67
Johnny Darter	D	I	C	3	2.25	2.00	0.00	0.07	1.67
Greenside Darter	D	I	S M	5	3.75	3.33	0.02	0.33	5.00
<i>Mile Total</i>				150	112.50		5.77		
<i>Number of Species</i>				15					
<i>Number of Hybrids</i>				0					

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 21.60	Location: Stitt Rd.	Date Range: 07/25/2006
Time Fished: 3235 sec	Drainage: 140.0 sq mi	Thru: 08/23/2006
Dist Fished: 0.40 km	Basin: Maumee River	No of Passes: 2
		Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	33	24.75	17.01	0.49	8.38	19.64
Northern Pike	F	P	M		1	0.75	0.52	0.26	4.52	350.00
White Sucker	W	O	S	T	10	7.50	5.15	0.65	11.25	87.00
Redfin Shiner	N	I	N		7	5.25	3.61	0.02	0.36	4.00
Common Shiner	N	I	S		1	0.75	0.52	0.00	0.02	1.00
Bluntnose Minnow	N	O	C	T	20	15.00	10.31	0.08	1.31	5.05
Central Stoneroller	N	H	N		1	0.75	0.52	0.01	0.13	10.00
Yellow Bullhead		I	C	T	10	7.50	5.15	1.05	18.10	140.00
Rock Bass	S	C	C		22	16.50	11.34	2.49	42.99	151.14
Largemouth Bass	F	C	C		2	1.50	1.03	0.02	0.26	10.00
Warmouth Sunfish	S	C	C		1	0.75	0.52	0.01	0.13	10.00
Green Sunfish	S	I	C	T	31	23.25	15.98	0.39	6.72	16.77
Bluegill Sunfish	S	I	C	P	11	8.25	5.67	0.17	2.97	20.91
Blackside Darter	D	I	S		10	7.50	5.15	0.09	1.57	12.10
Johnny Darter	D	I	C		10	7.50	5.15	0.01	0.17	1.30
Greenside Darter	D	I	S	M	24	18.00	12.37	0.07	1.14	3.67
<i>Mile Total</i>					194	145.50		5.80		
<i>Number of Species</i>					16					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 18.50	Location: Monclova Rd.	Date Range: 07/25/2006
Time Fished: 2333 sec	Drainage: 146.0 sq mi	Thru: 08/23/2006
Dist Fished: 0.40 km	Basin: Maumee River	Sampler Type: D
	No of Passes: 2	

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	7	5.25	2.15	0.42	4.40	79.29
White Sucker	W	O	S	T	2	1.50	0.61	0.12	1.27	80.00
Creek Chub	N	G	N	T	5	3.75	1.53	0.10	1.03	26.00
Redfin Shiner	N	I	N		1	0.75	0.31	0.00	0.04	5.00
Bluntnose Minnow	N	O	C	T	25	18.75	7.67	0.04	0.41	2.08
Central Stoneroller	N	H	N		28	21.00	8.59	0.23	2.37	10.71
Stonecat Madtom		I	C	I	3	2.25	0.92	0.23	2.37	100.00
Rock Bass	S	C	C		76	57.00	23.31	7.24	76.39	126.97
Smallmouth Bass	F	C	C	M	2	1.50	0.61	0.38	3.96	250.00
Green Sunfish	S	I	C	T	9	6.75	2.76	0.17	1.84	25.78
Bluegill Sunfish	S	I	C	P	3	2.25	0.92	0.05	0.52	21.67
Blackside Darter	D	I	S		2	1.50	0.61	0.01	0.06	4.00
Johnny Darter	D	I	C		8	6.00	2.45	0.02	0.16	2.50
Greenside Darter	D	I	S	M	153	114.75	46.93	0.49	5.15	4.25
Orangethroat Darter	D	I	S		2	1.50	0.61	0.00	0.04	2.50
<i>Mile Total</i>					326	244.50		9.47		
<i>Number of Species</i>					15					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-003 River Mile: 15.30 Time Fished: 5680 sec Dist Fished: 0.40 km	Stream: Swan Creek Location: Salisbury Rd. Drainage: 160.0 sq mi Basin: Maumee River	Sample Date: 2006 Date Range: 08/07/2006 Thru: 09/11/2006 Sampler Type: D
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Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight	
Redfin Pickerel		P	M	P	39	29.25	7.49	0.30	2.15	10.38
Golden Redhorse	R	I	S	M	5	3.75	0.96	2.63	18.58	700.00
Shorthead Redhorse	R	I	S	M	1	0.75	0.19	0.03	0.21	40.00
White Sucker	W	O	S	T	12	9.00	2.30	0.77	5.47	85.83
Spotted Sucker	R	I	S		2	1.50	0.38	0.60	4.25	400.00
Redfin Shiner	N	I	N		15	11.25	2.88	0.02	0.15	1.87
Spotfin Shiner	N	I	M		18	13.50	3.45	0.04	0.30	3.13
Silverjaw Minnow	N	I	M		1	0.75	0.19	0.00	0.01	1.00
Bluntnose Minnow	N	O	C	T	34	25.50	6.53	0.09	0.63	3.48
Yellow Bullhead		I	C	T	2	1.50	0.38	0.13	0.90	85.00
Stonecat Madtom		I	C	I	1	0.75	0.19	0.08	0.53	100.00
Rock Bass	S	C	C		100	75.00	19.19	7.79	55.11	103.83
Smallmouth Bass	F	C	C	M	4	3.00	0.77	0.22	1.57	73.75
Largemouth Bass	F	C	C		1	0.75	0.19	0.41	2.92	550.00
Green Sunfish	S	I	C	T	55	41.25	10.56	0.46	3.28	11.24
Bluegill Sunfish	S	I	C	P	12	9.00	2.30	0.15	1.06	16.67
Green Sf X Hybrid					1	0.75	0.19	0.02	0.11	20.00
Blackside Darter	D	I	S		27	20.25	5.18	0.08	0.56	3.89
Johnny Darter	D	I	C		36	27.00	6.91	0.04	0.27	1.39
Greenside Darter	D	I	S	M	155	116.25	29.75	0.28	1.96	2.39
<i>Mile Total</i>				521	390.75		14.13			
<i>Number of Species</i>				19						
<i>Number of Hybrids</i>				1						

Species List

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 10.80	Location: Reynolds Rd.	Date Range: 08/08/2006
Time Fished: 3242 sec	Drainage: 192.0 sq mi	Thru: 09/11/2006
Dist Fished: 0.40 km	Basin: Maumee River	Sampler Type: D
	No of Passes: 2	

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Silver Lamprey		P	N		1	0.75	0.49	0.01	0.28	15.00
Redfin Pickerel		P	M	P	25	18.75	12.25	0.20	5.00	10.80
Shorthead Redhorse	R	I	S	M	1	0.75	0.49	0.05	1.11	60.00
White Sucker	W	O	S	T	8	6.00	3.92	0.62	15.33	103.38
Spotted Sucker	R	I	S		1	0.75	0.49	0.19	4.63	250.00
Bluntnose Minnow	N	O	C	T	7	5.25	3.43	0.03	0.68	5.14
Yellow Bullhead		I	C	T	1	0.75	0.49	0.10	2.51	135.00
Tadpole Madtom		I	C		1	0.75	0.49	0.02	0.37	20.00
Rock Bass	S	C	C		10	7.50	4.90	0.50	12.36	66.70
Largemouth Bass	F	C	C		3	2.25	1.47	0.04	0.93	16.67
Green Sunfish	S	I	C	T	37	27.75	18.14	0.37	9.08	13.24
Bluegill Sunfish	S	I	C	P	6	4.50	2.94	0.15	3.62	32.50
Green Sf X Bluegill Sf					1	0.75	0.49	0.02	0.37	20.00
Green Sf X Hybrid					2	1.50	0.98	0.04	0.93	25.00
Blackside Darter	D	I	S		28	21.00	13.73	0.06	1.59	3.07
Logperch	D	I	S	M	4	3.00	1.96	0.05	1.11	15.00
Johnny Darter	D	I	C		16	12.00	7.84	0.02	0.59	2.00
Greenside Darter	D	I	S	M	49	36.75	24.02	0.10	2.49	2.75
Freshwater Drum			M	P	2	1.50	0.98	1.49	36.68	990.00
Round Goby					1	0.75	0.49	0.02	0.37	20.00
<i>Mile Total</i>					204	153.00		4.05		
<i>Number of Species</i>					18					
<i>Number of Hybrids</i>					2					

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 4.40	Location: upst. South Ave.	Date Range: 08/09/2006
Time Fished: 5748 sec	Drainage: 200.0 sq mi	Thru: 09/11/2006
Dist Fished: 1.00 km	Basin: Maumee River	No of Passes: 2
		Sampler Type: A

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M	3	3.00	0.97	0.34	0.58	113.33
Redfin Pickerel		P	M P	7	7.00	2.27	0.08	0.14	11.43
Northern Pike	F	P	M	1	1.00	0.32	0.25	0.43	250.00
Smallmouth Buffalo	C	I	M	1	1.00	0.32	0.12	0.20	115.00
Silver Redhorse	R	I	S M	3	3.00	0.97	0.96	1.63	319.00
Golden Redhorse	R	I	S M	1	1.00	0.32	0.35	0.60	350.00
Shorthead Redhorse	R	I	S M	13	13.00	4.21	0.89	1.51	68.08
White Sucker	W	O	S T	66	66.00	21.36	13.65	23.30	206.82
Spotted Sucker	R	I	S	20	20.00	6.47	8.85	15.11	442.50
Common Carp	G	O	M T	8	8.00	2.59	12.42	21.20	1,552.60
Goldfish	G	O	M T	2	2.00	0.65	0.48	0.82	241.00
Golden Shiner	N	I	M T	3	3.00	0.97	0.01	0.02	3.00
Emerald Shiner	N	I	M	7	7.00	2.27	0.05	0.09	7.33
Silver Shiner	N	I	S I	6	6.00	1.94	0.01	0.01	0.83
Spotfin Shiner	N	I	M	19	19.00	6.15	0.03	0.06	1.79
Bluntnose Minnow	N	O	C T	10	10.00	3.24	0.04	0.07	4.10
Common Carp X Goldfish	G	O	T	7	7.00	2.27	4.74	8.08	676.43
Channel Catfish	F		C	4	4.00	1.29	5.25	8.96	1,312.25
Yellow Bullhead		I	C T	2	2.00	0.65	0.41	0.70	205.00
Brown Bullhead		I	C T	1	1.00	0.32	0.09	0.15	90.00
Brook Silverside		I	M M	1	1.00	0.32	0.00	0.00	1.00
White Perch	E		M	1	1.00	0.32	0.04	0.06	38.00
Rock Bass	S	C	C	1	1.00	0.32	0.12	0.20	115.00
Smallmouth Bass	F	C	C M	1	1.00	0.32	0.26	0.45	261.00
Largemouth Bass	F	C	C	15	15.00	4.85	3.37	5.75	224.60
Green Sunfish	S	I	C T	17	17.00	5.50	0.45	0.77	26.47
Bluegill Sunfish	S	I	C P	60	60.00	19.42	0.85	1.45	14.17
Pumpkinseed Sunfish	S	I	C P	12	12.00	3.88	0.64	1.09	53.33
Green Sf X Hybrid				2	2.00	0.65	0.05	0.08	23.50
Yellow Perch			M	3	3.00	0.97	0.28	0.47	92.00
Blackside Darter	D	I	S	2	2.00	0.65	0.00	0.00	1.00
Logperch	D	I	S M	3	3.00	0.97	0.04	0.07	14.33
Johnny Darter	D	I	C	4	4.00	1.29	0.01	0.01	1.50
Freshwater Drum			M P	2	2.00	0.65	3.48	5.93	1,737.50
Round Goby				1	1.00	0.32	0.00	0.01	4.00
<i>Mile Total</i>				309	309.00		58.58		
<i>Number of Species</i>				33					
<i>Number of Hybrids</i>				2					

Species List

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 4.20	Location: dst. South Ave.	Date Range: 08/09/2006
Time Fished: 5219 sec	Drainage: 200.0 sq mi	Thru: 09/11/2006
Dist Fished: 0.40 km	Basin: Maumee River	No of Passes: 2
		Sampler Type: D

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Rainbow Trout	E		N	1	0.75	0.14	0.83	8.20	1,100.00
Redfin Pickerel		P	M P	1	0.75	0.14	0.01	0.07	10.00
Shorthead Redhorse	R	I	S M	8	6.00	1.09	0.25	2.46	41.25
Northern Hog Sucker	R	I	S M	2	1.50	0.27	0.14	1.34	90.00
White Sucker	W	O	S T	7	5.25	0.96	0.54	5.33	102.14
Common Carp	G	O	M T	2	1.50	0.27	0.29	2.87	192.50
Golden Shiner	N	I	M T	22	16.50	3.01	0.04	0.39	2.38
Emerald Shiner	N	I	M	187	140.25	25.58	0.14	1.36	0.97
Common Shiner	N	I	S	2	1.50	0.27	0.01	0.07	5.00
Spotfin Shiner	N	I	M	28	21.00	3.83	0.07	0.70	3.36
Bluntnose Minnow	N	O	C T	32	24.00	4.38	0.10	0.97	4.06
Central Stoneroller	N	H	N	5	3.75	0.68	0.04	0.39	10.40
Yellow Bullhead		I	C T	3	2.25	0.41	0.17	1.71	76.67
Stonecat Madtom		I	C I	1	0.75	0.14	0.01	0.07	10.00
Tadpole Madtom		I	C	10	7.50	1.37	0.05	0.49	6.50
Brook Silverside		I	M M	2	1.50	0.27	0.00	0.01	1.00
Rock Bass	S	C	C	3	2.25	0.41	0.14	1.42	63.33
Smallmouth Bass	F	C	C M	4	3.00	0.55	0.77	7.61	255.00
Largemouth Bass	F	C	C	29	21.75	3.97	4.16	41.31	191.02
Green Sunfish	S	I	C T	6	4.50	0.82	0.13	1.28	28.67
Bluegill Sunfish	S	I	C P	46	34.50	6.29	0.53	5.22	15.22
Orangespotted Sunfish	S	I	C	6	4.50	0.82	0.07	0.67	15.00
Pumpkinseed Sunfish	S	I	C P	4	3.00	0.55	0.12	1.19	40.00
Green Sf X Bluegill Sf				1	0.75	0.14	0.01	0.11	15.00
Yellow Perch			M	6	4.50	0.82	0.02	0.16	3.67
Blackside Darter	D	I	S	6	4.50	0.82	0.02	0.17	3.83
Logperch	D	I	S M	67	50.25	9.17	0.30	3.03	6.06
Johnny Darter	D	I	C	1	0.75	0.14	0.00	0.01	2.00
Greenside Darter	D	I	S M	15	11.25	2.05	0.06	0.56	5.00
Round Goby				224	168.00	30.64	1.09	10.81	6.47
	<i>Mile Total</i>			731	548.25		10.06		
	<i>Number of Species</i>			29					
	<i>Number of Hybrids</i>			1					

River Code: 04-003	Stream: Swan Creek	Sample Date: 2006
River Mile: 1.40	Location: City Park Ave.	Date Range: 08/09/2006
Time Fished: 6340 sec	Drainage: 203.0 sq mi	Thru: 09/12/2006
Dist Fished: 1.00 km	Basin: Maumee River	Sampler Type: A
	No of Passes: 2	

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Gizzard Shad		O	M	6	6.00	2.40	1.26	4.01	210.00
Redfin Pickerel		P	M P	5	5.00	2.00	0.07	0.21	13.00
Northern Pike	F	P	M	3	3.00	1.20	0.51	1.62	170.00
Golden Redhorse	R	I	S M	2	2.00	0.80	0.90	2.87	450.00
Shorthead Redhorse	R	I	S M	1	1.00	0.40	0.04	0.13	40.00
Greater Redhorse [T]	R	I	S R	1	1.00	0.40	0.03	0.10	30.00
White Sucker	W	O	S T	5	5.00	2.00	0.20	0.64	40.00
Spotted Sucker	R	I	S	13	13.00	5.20	5.24	16.68	402.85
Common Carp	G	O	M T	4	4.00	1.60	11.00	35.04	2,750.00
Goldfish	G	O	M T	2	2.00	0.80	0.84	2.68	420.00
Golden Shiner	N	I	M T	17	17.00	6.80	0.12	0.37	6.82
Emerald Shiner	N	I	M	8	8.00	3.20	0.02	0.06	2.50
Silver Shiner	N	I	S I	2	2.00	0.80	0.01	0.04	6.00
Spottail Shiner	N	I	M P	3	3.00	1.20	0.02	0.06	6.67
Bluntnose Minnow	N	O	C T	4	4.00	1.60	0.03	0.10	8.00
Common Carp X Goldfish	G	O	T	1	1.00	0.40	0.43	1.35	425.00
Brook Silverside		I	M M	1	1.00	0.40	0.00	0.00	1.00
Rock Bass	S	C	C	4	4.00	1.60	0.54	1.72	135.00
Largemouth Bass	F	C	C	30	30.00	12.00	6.75	21.49	224.83
Green Sunfish	S	I	C T	2	2.00	0.80	0.06	0.19	30.50
Bluegill Sunfish	S	I	C P	55	55.00	22.00	1.03	3.28	18.74
Orangespotted Sunfish	S	I	C	6	6.00	2.40	0.07	0.21	10.83
Pumpkinseed Sunfish	S	I	C P	41	41.00	16.40	1.18	3.74	28.67
Yellow Perch			M	24	24.00	9.60	0.98	3.11	40.63
Logperch	D	I	S M	2	2.00	0.80	0.02	0.06	10.00
Round Goby				8	8.00	3.20	0.07	0.23	8.88
<i>Mile Total</i>				250	250.00		31.39		
<i>Number of Species</i>				25					
<i>Number of Hybrids</i>				1					

Species List

River Code: 04-004	Stream: Wolf Creek	Sample Date: 2006
River Mile: 4.10	Location: Albon Rd.	Date Range: 07/06/2006
Time Fished: 1518 sec	Drainage: 7.9 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River	No of Passes: 1
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Central Mudminnow		I	C	T	1	2.00	0.93	0.00	0.07	1.00
Redfin Pickerel		P	M	P	5	10.00	4.63	0.20	6.59	20.00
White Sucker	W	O	S	T	9	18.00	8.33	0.54	17.79	30.00
Creek Chub	N	G	N	T	14	28.00	12.96	0.70	23.06	25.00
Fathead Minnow	N	O	C	T	1	2.00	0.93	0.01	0.33	5.00
Bluntnose Minnow	N	O	C	T	19	38.00	17.59	0.09	2.93	2.33
Central Stoneroller	N	H	N		5	10.00	4.63	0.16	5.27	16.00
Yellow Bullhead		I	C	T	4	8.00	3.70	0.54	17.79	67.50
Green Sunfish	S	I	C	T	20	40.00	18.52	0.26	8.56	6.50
Bluegill Sunfish	S	I	C	P	22	44.00	20.37	0.34	11.03	7.62
Redear Sunfish	E	I	C		2	4.00	1.85	0.06	1.98	15.00
Green Sf X Bluegill Sf					1	2.00	0.93	0.04	1.32	20.00
Green Sf X Hybrid					1	2.00	0.93	0.08	2.64	40.00
Johnny Darter	D	I	C		4	8.00	3.70	0.02	0.66	2.50
<i>Mile Total</i>					108	216.00		3.04		
<i>Number of Species</i>					12					
<i>Number of Hybrids</i>					2					

Species List

River Code: 04-004	Stream: Wolf Creek	Sample Date: 2006
River Mile: 2.00	Location: Holland Rd.	Date Range: 07/26/2006
Time Fished: 923 sec	Drainage: 12.9 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River	No of Passes: 1
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	1	2.00	2.33	0.22	3.15	110.00
White Sucker	W	O	S	T	5	10.00	11.63	3.10	44.35	310.00
Common Carp	G	O	M	T	1	2.00	2.33	0.70	10.01	350.00
Creek Chub	N	G	N	T	4	8.00	9.30	0.70	10.01	87.50
Black Crappie	S	I	C		2	4.00	4.65	0.14	2.00	35.00
Largemouth Bass	F	C	C		4	8.00	9.30	1.10	15.74	137.50
Green Sunfish	S	I	C	T	14	28.00	32.56	0.48	6.87	17.14
Bluegill Sunfish	S	I	C	P	11	22.00	25.58	0.50	7.15	22.73
Pumpkinseed Sunfish	S	I	C	P	1	2.00	2.33	0.05	0.72	25.00
<i>Mile Total</i>					43	86.00		6.99		
<i>Number of Species</i>					9					
<i>Number of Hybrids</i>					0					

River Code: 04-004	Stream: Wolf Creek	Sample Date: 2006
River Mile: 0.50	Location: Holland-Sylvania Rd.	Date Range: 07/25/2006
Time Fished: 3086 sec	Drainage: 26.1 sq mi	Thru: 08/23/2006
Dist Fished: 0.30 km	Basin: Maumee River	No of Passes: 2
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Northern Pike	F	P	M		2	2.00	2.78	0.14	4.88	70.00
White Sucker	W	O	S	T	7	7.00	9.72	0.56	19.53	80.00
Common Carp	G	O	M	T	1	1.00	1.39	0.60	20.93	600.00
Creek Chub	N	G	N	T	2	2.00	2.78	0.07	2.27	32.50
Bluntnose Minnow	N	O	C	T	1	1.00	1.39	0.01	0.35	10.00
Yellow Bullhead		I	C	T	1	1.00	1.39	0.27	9.24	265.00
Rock Bass	S	C	C		1	1.00	1.39	0.20	6.98	200.00
Largemouth Bass	F	C	C		3	3.00	4.17	0.23	7.85	75.00
Green Sunfish	S	I	C	T	23	23.00	31.94	0.49	17.09	21.30
Bluegill Sunfish	S	I	C	P	17	17.00	23.61	0.24	8.37	14.12
Pumpkinseed Sunfish	S	I	C	P	2	2.00	2.78	0.05	1.74	25.00
Blackside Darter	D	I	S		2	2.00	2.78	0.01	0.24	3.50
Johnny Darter	D	I	C		10	10.00	13.89	0.02	0.52	1.50
<i>Mile Total</i>					72	72.00		2.87		
<i>Number of Species</i>					13					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-005	Stream: Cairl Creek	Sample Date: 2006
River Mile: 1.30	Location: Pilliad Rd.	Date Range: 08/08/2006
Time Fished: 2067 sec	Drainage: 10.3 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River	No of Passes: 1
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	10	20.00	8.55	2.30	28.66	115.00
Common Carp	G	O	M	T	1	2.00	0.85	0.40	4.98	200.00
Creek Chub	N	G	N	T	60	120.00	51.28	4.22	52.58	35.17
Fathead Minnow	N	O	C	T	2	4.00	1.71	0.02	0.20	4.00
Bluntnose Minnow	N	O	C	T	2	4.00	1.71	0.02	0.25	5.00
Central Stoneroller	N	H	N		1	2.00	0.85	0.02	0.25	10.00
Green Sunfish	S	I	C	T	40	80.00	34.19	1.04	12.96	13.00
Greenside Darter	D	I	S	M	1	2.00	0.85	0.01	0.12	5.00
<i>Mile Total</i>					117	234.00		8.03		
<i>Number of Species</i>					8					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-006	Stream: Blue Creek	Sample Date: 2006
River Mile: 7.80	Location: Manore Rd.	Date Range: 07/05/2006
Time Fished: 1584 sec	Drainage: 12.7 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River	No of Passes: 1
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Central Mudminnow		I	C	T	15	30.00	37.50	0.19	6.92	6.15
Redfin Pickerel		P	M	P	12	24.00	30.00	0.98	36.64	40.83
Creek Chub	N	G	N	T	2	4.00	5.00	0.29	10.84	72.50
Yellow Bullhead		I	C	T	2	4.00	5.00	0.44	16.45	110.00
Tadpole Madtom		I	C		5	10.00	12.50	0.10	3.74	10.00
Rock Bass	S	C	C		1	2.00	2.50	0.46	17.20	230.00
Green Sunfish	S	I	C	T	3	6.00	7.50	0.22	8.22	36.67
<i>Mile Total</i>					40	80.00		2.68		
<i>Number of Species</i>					7					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-006	Stream: Blue Creek	Sample Date: 2006
River Mile: 5.50	Location: St. Rt. 295	Date Range: 07/05/2006
Time Fished: 2709 sec	Drainage: 27.0 sq mi	Thru: 08/21/2006
Dist Fished: 0.30 km	Basin: Maumee River	Sampler Type: E
	No of Passes: 2	

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Central Mudminnow		I	C	T	7	7.00	4.61	0.05	1.90	7.14
Redfin Pickerel		P	M	P	46	46.00	30.26	1.03	39.16	22.39
White Sucker	W	O	S	T	6	6.00	3.95	0.52	19.77	86.67
Common Carp	G	O	M	T	1	1.00	0.66	0.10	3.80	100.00
Creek Chub	N	G	N	T	6	6.00	3.95	0.18	6.84	30.00
Redfin Shiner	N	I	N		2	2.00	1.32	0.01	0.38	5.00
Bluntnose Minnow	N	O	C	T	70	70.00	46.05	0.42	15.81	5.94
Yellow Bullhead		I	C	T	1	1.00	0.66	0.21	7.98	210.00
Tadpole Madtom		I	C		6	6.00	3.95	0.09	3.23	14.17
Rock Bass	S	C	C		2	2.00	1.32	0.01	0.38	5.00
Bluegill Sunfish	S	I	C	P	1	1.00	0.66	0.01	0.38	10.00
Johnny Darter	D	I	C		4	4.00	2.63	0.01	0.36	2.33
<i>Mile Total</i>					152	152.00		2.63		
<i>Number of Species</i>					12					
<i>Number of Hybrids</i>					0					

River Code: 04-006	Stream: Blue Creek	Sample Date: 2006
River Mile: 0.80	Location: Finzel Rd.	Date Range: 07/06/2006
Time Fished: 1702 sec	Drainage: 44.5 sq mi	Thru: 08/21/2006
Dist Fished: 0.29 km	Basin: Maumee River	Sampler Type: E
	No of Passes: 2	

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	8	8.07	4.84	0.09	1.68	10.63
White Sucker	W	O	S	T	2	2.14	1.28	0.18	3.59	85.00
Common Carp	G	O	M	T	1	1.07	0.64	2.25	44.33	2,100.00
Creek Chub	N	G	N	T	1	1.07	0.64	0.03	0.63	30.00
Bluntnose Minnow	N	O	C	T	5	5.07	3.04	0.05	0.92	9.00
Yellow Bullhead		I	C	T	1	1.00	0.60	0.05	0.99	50.00
Tadpole Madtom		I	C		2	2.00	1.20	0.02	0.30	7.50
Rock Bass	S	C	C		17	17.71	10.62	1.37	26.97	77.59
Green Sunfish	S	I	C	T	95	97.57	58.50	0.90	17.81	9.25
Bluegill Sunfish	S	I	C	P	6	6.00	3.60	0.06	1.18	10.00
Dusky Darter	D	I	S	M	1	1.07	0.64	0.01	0.21	10.00
Blackside Darter	D	I	S		5	5.00	3.00	0.02	0.41	4.20
Johnny Darter	D	I	C		14	14.00	8.39	0.03	0.59	2.14
Greenside Darter	D	I	S	M	5	5.00	3.00	0.02	0.39	4.00
<i>Mile Total</i>					163	166.79		5.08		
<i>Number of Species</i>					14					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-008	Stream: Harris Ditch	Sample Date: 2006
River Mile: 1.60	Location: St. Rt. 295	Date Range: 07/05/2006
Time Fished: 820 sec	Drainage: 7.5 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River	No of Passes: 1
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	2	4.00	20.00	0.05	6.28	12.50
White Sucker	W	O	S	T	1	2.00	10.00	0.10	12.56	50.00
Creek Chub	N	G	N	T	5	10.00	50.00	0.38	47.74	38.00
Redfin Shiner	N	I	N		1	2.00	10.00	0.01	0.75	3.00
Rock Bass	S	C	C		1	2.00	10.00	0.26	32.66	130.00
<i>Mile Total</i>					10	20.00		0.80		
<i>Number of Species</i>					5					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-010 River Mile: 10.50 Time Fished: 1560 sec Dist Fished: 0.15 km	Stream: Ai Creek Location: Co. Rd. L, in town of Ai Drainage: 6.8 sq mi Basin: Maumee River	Sample Date: 2006 Date Range: 07/11/2006 No of Passes: 1 Sampler Type: E
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Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	23	46.00	8.85	0.10	2.74	2.22
Common Carp	G	O	M	T	1	2.00	0.38	0.02	0.54	10.00
Creek Chub	N	G	N	T	61	122.00	23.46	1.90	51.02	15.57
Common Shiner	N	I	S		30	60.00	11.54	0.52	13.96	8.67
Fathead Minnow	N	O	C	T	61	122.00	23.46	0.22	6.02	1.83
Bluntnose Minnow	N	O	C	T	9	18.00	3.46	0.10	2.63	5.44
Central Stoneroller	N	H	N		32	64.00	12.31	0.34	9.13	5.31
Green Sunfish	S	I	C	T	15	30.00	5.77	0.45	12.08	15.00
Johnny Darter	D	I	C		28	56.00	10.77	0.07	1.88	1.25
<i>Mile Total</i>					260	520.00		3.72		
<i>Number of Species</i>					9					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-010 River Mile: 8.30 Time Fished: 1502 sec Dist Fished: 0.15 km	Stream: Ai Creek Location: Co. Rd. L, dst. town of Ai Drainage: 12.5 sq mi Basin: Maumee River	Sample Date: 2006 Date Range: 07/11/2006 No of Passes: 1 Sampler Type: E
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Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
White Sucker	W	O	S	T	1	2.00	0.48	0.10	4.00	50.00
Creek Chub	N	G	N	T	67	134.00	32.21	1.70	68.05	12.69
Common Shiner	N	I	S		7	14.00	3.37	0.07	2.80	5.00
Fathead Minnow	N	O	C	T	37	74.00	17.79	0.16	6.49	2.19
Bluntnose Minnow	N	O	C	T	7	14.00	3.37	0.06	2.56	4.57
Central Stoneroller	N	H	N		30	60.00	14.42	0.22	8.81	3.67
Green Sunfish	S	I	C	T	3	6.00	1.44	0.02	0.80	3.33
Johnny Darter	D	I	C		56	112.00	26.92	0.16	6.49	1.45
<i>Mile Total</i>					208	416.00		2.50		
<i>Number of Species</i>					8					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-010	Stream: Ai Creek	Sample Date: 2006
River Mile: 2.10	Location: Scott Rd.	Date Range: 07/24/2006
Time Fished: 806 sec	Drainage: 19.5 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River	No of Passes: 1
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	9	18.00	9.57	0.64	4.54	35.56
White Sucker	W	O	S	T	9	18.00	9.57	0.74	5.25	41.11
Common Carp	G	O	M	T	2	4.00	2.13	10.00	71.00	2,500.00
Creek Chub	N	G	N	T	18	36.00	19.15	0.98	6.96	27.22
Common Shiner	N	I	S		8	16.00	8.51	0.25	1.78	15.63
Bluntnose Minnow	N	O	C	T	3	6.00	3.19	0.03	0.21	5.00
Central Stoneroller	N	H	N		3	6.00	3.19	0.05	0.36	8.33
Yellow Bullhead		I	C	T	5	10.00	5.32	0.44	3.12	44.00
Largemouth Bass	F	C	C		4	8.00	4.26	0.04	0.28	5.00
Green Sunfish	S	I	C	T	23	46.00	24.47	0.80	5.68	17.39
Bluegill Sunfish	S	I	C	P	1	2.00	1.06	0.02	0.14	10.00
Orangespotted Sunfish	S	I	C		1	2.00	1.06	0.05	0.36	25.00
Johnny Darter	D	I	C		7	14.00	7.45	0.04	0.28	2.86
Greenside Darter	D	I	S	M	1	2.00	1.06	0.00	0.03	2.00
<i>Mile Total</i>					94	188.00		14.08		
<i>Number of Species</i>					14					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-010	Stream: Ai Creek	Sample Date: 2006
River Mile: 1.70	Location: St. Rt. 2	Date Range: 07/24/2006
Time Fished: 2293 sec	Drainage: 49.3 sq mi	Thru: 08/22/2006
Dist Fished: 0.30 km	Basin: Maumee River	No of Passes: 2
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	20	20.00	4.68	0.27	3.00	13.50
White Sucker	W	O	S	T	15	15.00	3.51	0.74	8.16	49.00
Common Carp	G	O	M	T	3	3.00	0.70	1.89	20.92	628.33
Creek Chub	N	G	N	T	15	15.00	3.51	0.40	4.41	26.50
Redfin Shiner	N	I	N		21	21.00	4.92	0.07	0.72	3.10
Common Shiner	N	I	S		11	11.00	2.58	0.22	2.43	19.85
Bluntnose Minnow	N	O	C	T	32	32.00	7.49	0.05	0.55	1.56
Central Stoneroller	N	H	N		1	1.00	0.23	0.00	0.03	3.00
Yellow Bullhead		I	C	T	6	6.00	1.41	1.88	20.87	313.33
Tadpole Madtom		I	C		2	2.00	0.47	0.03	0.28	12.50
Largemouth Bass	F	C	C		7	7.00	1.64	0.67	7.44	95.71
Green Sunfish	S	I	C	T	157	157.00	36.77	2.09	23.25	13.34
Bluegill Sunfish	S	I	C	P	44	44.00	10.30	0.38	4.22	8.64
Pumpkinseed Sunfish	S	I	C	P	4	4.00	0.94	0.08	0.89	20.00
Blackside Darter	D	I	S		1	1.00	0.23	0.01	0.11	10.00
Johnny Darter	D	I	C		59	59.00	13.82	0.10	1.07	1.63
Greenside Darter	D	I	S	M	29	29.00	6.79	0.15	1.66	5.17
<i>Mile Total</i>					427	427.00		9.01		
<i>Number of Species</i>					17					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-081	Stream: Blystone Ditch	Sample Date: 2006
River Mile: 0.60	Location: Monclova Rd.	Date Range: 07/25/2006
Time Fished: 2296 sec	Drainage: 6.5 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River	No of Passes: 1
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Redfin Pickerel		P	M	P	8	16.00	4.10	0.38	4.15	23.75
White Sucker	W	O	S	T	26	52.00	13.33	2.24	24.47	43.08
Common Carp	G	O	M	T	7	14.00	3.59	1.80	19.66	128.57
Golden Shiner	N	I	M	T	3	6.00	1.54	0.04	0.44	6.67
Creek Chub	N	G	N	T	29	58.00	14.87	2.42	26.44	41.72
Bluntnose Minnow	N	O	C	T	14	28.00	7.18	0.06	0.70	2.29
Central Stoneroller	N	H	N		2	4.00	1.03	0.04	0.44	10.00
Yellow Bullhead		I	C	T	3	6.00	1.54	0.26	2.84	43.33
Tadpole Madtom		I	C		4	8.00	2.05	0.06	0.66	7.50
Largemouth Bass	F	C	C		4	8.00	2.05	0.18	1.97	22.50
Green Sunfish	S	I	C	T	32	64.00	16.41	1.20	13.11	18.75
Bluegill Sunfish	S	I	C	P	44	88.00	22.56	0.36	3.93	4.09
Pumpkinseed Sunfish	S	I	C	P	3	6.00	1.54	0.06	0.66	10.00
Johnny Darter	D	I	C		14	28.00	7.18	0.04	0.44	1.43
Greenside Darter	D	I	S	M	1	2.00	0.51	0.01	0.07	3.00
Orangethroat Darter	D	I	S		1	2.00	0.51	0.00	0.04	2.00
<i>Mile Total</i>					195	390.00		9.15		
<i>Number of Species</i>					16					
<i>Number of Hybrids</i>					0					

Species List

River Code: 04-097	Stream: Fewless Creek	Sample Date: 2006
River Mile: 1.80	Location: Fulto Co. Rd. 4	Date Range: 07/10/2006
Time Fished: 1141 sec	Drainage: 5.9 sq mi	
Dist Fished: 0.15 km	Basin: Maumee River	No of Passes: 1
		Sampler Type: E

Species Name / ODNR status	IBI Grp	Feed Guild	Breed Guild	Tol	# of Fish	Relative Number	% by Number	Relative Weight	% by Weight	Ave(gm) Weight
Central Mudminnow		I	C	T	2	4.00	0.42	0.08	1.64	20.00
White Sucker	W	O	S	T	74	148.00	15.58	0.43	8.80	2.91
Creek Chub	N	G	N	T	138	276.00	29.05	2.08	42.44	7.52
Common Shiner	N	I	S		18	36.00	3.79	0.16	3.23	4.38
Fathead Minnow	N	O	C	T	151	302.00	31.79	0.74	15.03	2.43
Bluntnose Minnow	N	O	C	T	45	90.00	9.47	0.20	4.05	2.20
Central Stoneroller	N	H	N		22	44.00	4.63	0.23	4.70	5.24
Yellow Bullhead		I	C	T	3	6.00	0.63	0.48	9.82	80.00
Blackstripe Topminnow		I	M		1	2.00	0.21	0.01	0.16	4.00
Largemouth Bass	F	C	C		3	6.00	0.63	0.04	0.74	6.00
Green Sunfish	S	I	C	T	6	12.00	1.26	0.38	7.77	31.67
Bluegill Sunfish	S	I	C	P	12	24.00	2.53	0.08	1.64	3.33
	<i>Mile Total</i>				475	950.00		4.89		
	<i>Number of Species</i>				12					
	<i>Number of Hybrids</i>				0					

Appendix C

Swan Creek Fish IBI Data 2006

River Mile	Type	Date	Drainage area (sq mi)	Number of						Percent of Individuals					Rel.No. minus tolerants /(0.3km)	IBI	
				Total species	Minnow species	Headwater species	Sensitive species	Darter & Sculpin species	Simple Lithophils	Tolerant fishes	Omni- vores	Pioneering fishes	Insect- ivores	DELT anomalies			
Swan Creek - (04-003)																	
Year: 2006																	
40.70	E	07/11/2006	7.5	9(3)	5(3)	0(1)	0(1)	2(3)	3(3)	61(1)	35(1)	56(1)	13(1)	0.0(5)	562(3)	26	
40.70	E	08/22/2006	7.5	7(3)	5(3)	0(1)	0(1)	1(1)	2(1)	57(1)	6(5)	68(1)	42(5)	0.0(5)	554(3)	30	
34.40	E	07/11/2006	14.6	11(3)	4(3)	0(1)	1(1)	3(3)	4(3)	49(3)	6(5)	53(3)	21(1)	0.0(5)	106(1)	32	
34.40	E	08/22/2006	14.6	13(3)	4(3)	0(1)	1(1)	4(3)	5(3)	46(3)	15(5)	52(3)	40(3)	0.0(5)	280(3)	36	
Wolf Creek - (04-004)																	
Year: 2006																	
4.10	E	07/06/2006	7.9	11(3)	4(3)	0(1)	0(1)	1(1)	1(1)	63(1)	27(3)	54(3)	49(5)	0.0(5)	80(1)	28	
2.00	E	07/26/2006	12.9	8(3)	1(1)	0(1)	0(1)	0(1)	1(1)	56(1)	14(5)	42(3)	65(5)	0.0(5)	38(1) *	28	
Cairl Creek - (04-005)																	
Year: 2006																	
1.30	E	08/08/2006	10.3	7(1)	4(3)	0(1)	1(1)	1(1)	2(1)	98(1)	13(5)	89(1)	35(3)	0.0(5)	4(1)	24	
Blue Creek - (04-006)																	
Year: 2006																	
7.80	E	07/05/2006	12.7	7(1)	1(1)	0(1)	0(1)	0(1)	0(1)	55(3)	0(5)	13(5)	63(5)	0.0(5)	36(1) *	30	
Harris Ditch - (04-008)																	
Year: 2006																	
1.60	E	07/05/2006	7.5	5(1)	2(1)	0(1)	0(1)	0(1)	1(1)	60(1)	10(1)	50(1)	10(1)	0.0(1)	8(1) * *	12	
Ai Creek - (04-010)																	
Year: 2006																	
10.50	E	07/11/2006	6.8	8(3)	5(3)	0(1)	0(1)	1(1)	2(1)	65(1)	36(1)	67(1)	28(3)	0.0(5)	180(3)	24	
8.30	E	07/11/2006	12.5	8(3)	5(3)	0(1)	0(1)	1(1)	2(1)	55(3)	22(3)	82(1)	32(3)	0.0(5)	186(1)	26	
2.10	E	07/24/2006	19.5	13(3)	4(3)	0(1)	1(1)	2(1)	3(1)	64(1)	15(5)	54(3)	49(3)	0.0(5)	68(1) *	28	
Blystone Ditch - (04-081)																	
Year: 2006																	
0.60	E	07/25/2006	6.5	15(5)	4(3)	0(1)	1(1)	3(3)	3(3)	58(1)	24(3)	46(3)	54(5)	1.0(3)	162(3)	34	
Fewless Creek - (04-097)																	

◆ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

● - One or more species excluded from IBI calculation.

River Mile	Type	Date	Drainage area (sq mi)	Number of						Percent of Individuals					Rel.No. minus tolerants /(0.3km)	IBI
				Total species	Minnow species	Headwater species	Sensitive species	Darter & Sculpin species	Simple Lithophils	Tolerant fishes	Omni- vores	Pioneering fishes	Insect- ivores	DELT anomalies		
Year: 2006																
1.80	E	07/10/2006	5.9	12(3)	5(3)	0(1)	0(1)	0(1)	2(1)	88(1)	57(1)	72(1)	9(1)	0.0(5)	112(1)	20

◆ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

● - One or more species excluded from IBI calculation.

River Mile	Type	Date	Drainage area (sq mi)	Number of					Percent of Individuals					Rel.No. minus tolerants /(0.3km)	IBI	Modified Iwb	
				Total species	Sunfish species	Sucker species	Intolerant species	Darter species	Simple Lithophils	Tolerant fishes	Omnivores	Top carnivores	Insect- ivores				DELT anomalies
Swan Creek - (04003)																	
Year: 2006																	
32.90	E	07/11/2006	25	7(1)	1(1)	1(1)	0(1)	1(1)	13(1)	54(1)	10(5)	30.8(5)	28(3)	0.0(5)	36(1) *	26	4.8
32.90	E	08/22/2006	25	10(3)	1(1)	1(1)	0(1)	4(5)	22(3)	46(3)	4(5)	13.6(5)	43(3)	0.0(5)	112(1)	36	5.5
30.90	E	07/11/2006	28	15(3)	2(3)	1(1)	0(1)	4(5)	25(3)	57(1)	25(3)	12.4(5)	36(3)	0.0(5)	90(1)	34	6.3
30.90	E	08/22/2006	28	11(3)	1(1)	1(1)	0(1)	2(3)	56(5)	33(3)	4(5)	4.0(3)	68(5)	0.0(5)	202(3)	38	5.5
24.70	D	07/25/2006	89	11(1)	3(3)	2(3)	0(1)	2(1)	14(1)	39(3)	10(5)	34.7(5)	55(5)	0.0(5)	45(1) *	34	5.8
24.70	D	08/23/2006	89	13(3)	3(3)	2(3)	0(1)	3(3)	11(1)	46(1)	4(5)	27.7(5)	68(5)	0.0(5)	83(1) *	36	6.9
21.60	D	07/25/2006	140	14(3)	4(5)	1(1)	0(1)	3(3)	15(1)	28(3)	9(5)	45.7(5)	43(3)	0.0(5)	50(1) *	36	6.1
21.60	D	08/23/2006	140	14(3)	3(3)	1(1)	0(1)	3(3)	26(3)	39(1)	18(5)	25.7(5)	57(5)	0.0(5)	135(1)	36	7.4
18.50	D	07/25/2006	146	12(3)	3(3)	1(1)	1(1)	2(1)	37(5)	18(5)	13(5)	40.2(5)	44(3)	0.0(5)	138(1) *	38	6.0
18.50	D	08/23/2006	146	13(3)	3(3)	0(1)	1(1)	4(3)	55(5)	10(5)	6(5)	18.7(5)	62(5)	0.0(5)	290(3)	44	6.7
15.30	D	08/07/2006	160	10(1)	3(3)	0(1)	1(1)	3(3)	34(3)	17(5)	2(5)	34.1(5)	64(5)	0.0(5)	287(3)	40	6.6
15.30	D	09/11/2006	160	18(3)	3(3)	4(3)	0(1)	3(3)	43(5)	22(3)	14(5)	22.6(5)	63(5)	0.0(5)	341(3)	44	8.3
10.80	D	08/08/2006	192	11(1)	3(3)	2(1)	0(1)	3(3)	24(1)	21(1)	3(1)	41.4(1)	48(1)	0.0(1)	35(1)**	16	5.5
10.80	D	09/11/2006	192	15(3)	3(3)	1(1)	0(1)	4(3)	48(5)	27(3)	8(5)	15.4(5)	74(5)	0.0(5)	192(1)	40	7.5
4.20	D	08/09/2006	200	19(3)	4(5)	2(1)	0(1)	3(3)	21(3)	7(5)	5(5)	6.9(5)	36(3)	0.5(5)	302(3)	42	8.1
4.20	D	09/11/2006	200	22(3)	3(3)	3(3)	1(1)	4(3)	12(1)	11(5)	6(5)	4.3(3)	66(5)	0.0(5)	687(3)	40	8.3
Wolf Creek - (04004)																	
Year: 2006																	
0.50	E	07/25/2006	26	12(3)	4(5)	1(1)	0(1)	2(3)	12(1)	41(3)	12(5)	11.8(5)	71(5)	5.9(1)	40(1) *	34	5.9
0.50	E	08/23/2006	26	7(1)	3(3)	1(1)	0(1)	2(3)	13(1)	55(1)	13(5)	5.3(5)	82(5)	0.0(5)	34(1) *	32	5.0
Blue Creek - (04006)																	
Year: 2006																	
5.50	E	07/05/2006	27	5(1)	1(1)	1(1)	0(1)	0(1)	8(1)	40(1)	12(1)	56.0(1)	16(1)	0.0(1)	30(1)**	12	4.4

na - Qualitative data, Modified Iwb not applicable.

◆ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

● - One or more species excluded from IBI calculation.

River Mile	Type	Date	Drainage area (sq mi)	Number of					Percent of Individuals					Rel.No. minus tolerants /(0.3km)	IBI	Modified Iwb	
				Total species	Sunfish species	Sucker species	Intolerant species	Darter species	Simple Lithophils	Tolerant fishes	Omni- vores	Top carnivores	Insect- ivores				DELT anomalies
5.50	E	08/21/2006	27	10(3)	1(1)	1(1)	0(1)	1(1)	3(1)	64(1)	58(1)	26.8(5)	13(1)	0.8(5)	92(1)	22	5.6
0.80	E	07/06/2006	44	7(1)	2(3)	1(1)	0(1)	1(1)	6(1)	77(1)	8(5)	20.8(5)	70(5)	0.0(5)	26(1) *	30	4.0
0.80	E	08/21/2006	44	10(3)	3(3)	0(1)	0(1)	3(3)	9(1)	58(1)	4(5)	12.7(5)	84(5)	0.0(5)	92(1)	34	5.6
Ai Creek - (04010)																	
Year: 2006																	
1.70	E	07/24/2006	49	15(3)	3(3)	1(1)	0(1)	3(3)	13(1)	62(1)	13(5)	5.3(5)	75(5)	1.2(3)	130(1)	32	6.7
1.70	E	08/22/2006	49	13(3)	3(3)	1(1)	0(1)	2(1)	13(1)	48(1)	11(5)	7.0(5)	80(5)	0.0(5)	268(3)	34	7.0

na - Qualitative data, Modified Iwb not applicable.

◆ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

● - One or more species excluded from IBI calculation.

River Mile	Type	Date	Drainage area (sq mi)	Number of				Percent of Individuals						DELTA anomalies	Rel.No. minus tolerants /(1.0 km)	Modified	
				Total species	Sunfish species	Sucker species	Intolerant species	Rnd-bodied suckers	Simple Lithophils	Tolerant fishes	Omni- vores	Top carnivores	Insect- ivores			IBI	lwb
Swan Creek - (04-003)																	
Year: 2006																	
4.40	A	08/09/2006	200	25(5)	4(5)	5(3)	1(1)	10(1)	26(3)	32(1)	21(3)	11(5)	63(5)	0.7(3)	198(1)	36	9.0
4.40	A	09/11/2006	200	19(3)	3(3)	5(3)	0(1)	14(1)	46(3)	43(1)	40(1)	5(3)	51(3)	0.6(3)	188(1)	26	8.4

◆ - IBI is low end adjusted.

* - < 200 Total individuals in sample

** - < 50 Total individuals in sample

River Mile	Type	Date	Drainage area (sq mi)	Number of					Percent of Individuals					Rel.No. minus tolerants /(1.0 km)	Modified		
				Total species	Centrarch. species	Sensitive species	Benthic species	Cyprinid species	Exotics	Tolerant fishes	Omni- vores	Top carnivores	Phyto- phils		DELT anomalies	IBI	lwb
Swan Creek - (04-003)																	
Year: 2006																	
1.40	A	08/09/2006	202	17(5)	6(3)	5(3)	7(5)	3(3)	5(5)	18(3)	7(5)	15(3)	58.8(5)	0.0(5)	272(1)	46	8.3
1.40	A	09/12/2006	202	17(5)	6(3)	2(1)	6(3)	4(3)	11(3)	10(5)	6(5)	20(5)	46.5(5)	0.0(5)	216(1)	44	8.7

Appendix D

Swan Creek Macroinvertebrate Data 2006

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Swan Creek

Collection Date: 08/09/2006 River Code: 04-003 RM: 40.60

Co. Rd. 6-1

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
04666	<i>Helobdella triserialis</i>	+	No. Quantitative Taxa: 0		Total Taxa: 43
04935	<i>Erpobdella punctata punctata</i>	+	No. Qualitative Taxa: 43		ICI:
05900	<i>Lirceus sp</i>	+	Number of Organisms: 0		Qual EPT: 11
08220	<i>Orconectes (Gremicambarus) immunis</i>	+			
08601	<i>Hydrachnidia</i>	+			
11120	<i>Baetis flavistriga</i>	+			
11125	<i>Pseudocloeon frondale</i>	+			
11130	<i>Baetis intercalaris</i>	+			
11200	<i>Callibaetis sp</i>	+			
13400	<i>Stenacron sp</i>	+			
13521	<i>Stenonema femoratum</i>	+			
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	+			
21604	<i>Archilestes grandis</i>	+			
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	+			
23600	<i>Aeshna sp</i>	+			
45300	<i>Sigara sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
52530	<i>Hydropsyche depravata group</i>	+			
53800	<i>Hydroptila sp</i>	+			
59500	<i>Oecetis sp</i>	+			
63300	<i>Hydroporus sp</i>	+			
68201	<i>Scirtidae</i>	+			
69400	<i>Stenelmis sp</i>	+			
72700	<i>Anopheles sp</i>	+			
74100	<i>Simulium sp</i>	+			
77120	<i>Ablabesmyia mallochi</i>	+			
77500	<i>Conchapelopia sp</i>	+			
78500	<i>Paramerina fragilis</i>	+			
82141	<i>Thienemanniella xena</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
83840	<i>Microtendipes pedellus group</i>	+			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84700	<i>Stenochironomus sp</i>	+			
84750	<i>Stictochironomus sp</i>	+			
85500	<i>Paratanytarsus sp</i>	+			
94800	<i>Stagnicola sp</i>	+			
95100	<i>Physella sp</i>	+			
96264	<i>Planorbella (Pierosoma) pilsbryi</i>	+			

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Swan Creek

Collection Date: 08/09/2006 River Code: 04-003 RM: 34.40

Co. Rd. 3

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
03360	<i>Plumatella sp</i>	+			
03600	<i>Oligochaeta</i>	+			
04685	<i>Placobdella ornata</i>	+			
08220	<i>Orconectes (Gremicambarus) immunis</i>	+			
08240	<i>Orconectes (Crockerinus) propinquus</i>	+			
08601	<i>Hydrachnidia</i>	+			
11120	<i>Baetis flavistriga</i>	+			
11200	<i>Callibaetis sp</i>	+			
13521	<i>Stenonema femoratum</i>	+			
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
23600	<i>Aeshna sp</i>	+			
23909	<i>Boyeria vinosa</i>	+			
45300	<i>Sigara sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
60900	<i>Peltodytes sp</i>	+			
63900	<i>Laccophilus sp</i>	+			
65800	<i>Berosus sp</i>	+			
67800	<i>Tropisternus sp</i>	+			
69400	<i>Stenelmis sp</i>	+			
74100	<i>Simulium sp</i>	+			
77500	<i>Conchapelopia sp</i>	+			
78140	<i>Labrundinia pilosella</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
83040	<i>Dicrotendipes neomodestus</i>	+			
84315	<i>Phaenopsectra flavipes</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84700	<i>Stenochironomus sp</i>	+			
84750	<i>Stictochironomus sp</i>	+			
85400	<i>Micropsectra sp</i>	+			
85500	<i>Paratanytarsus sp</i>	+			
85625	<i>Rheotanytarsus sp</i>	+			
85821	<i>Tanytarsus glabrescens group sp 7</i>	+			
94400	<i>Fossaria sp</i>	+			
95100	<i>Physella sp</i>	+			

No. Quantitative Taxa: 0 Total Taxa: 38

No. Qualitative Taxa: 38 ICI:

Number of Organisms: 0 Qual EPT: 5

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Swan Creek

Collection Date: 09/05/2006 River Code: 04-003 RM: 32.90

Twp. Rd. 2

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	33	84315	<i>Phaenopsectra flavipes</i>	34 +
03600	<i>Oligochaeta</i>	64 +	84410	<i>Polypedilum (Pentapedilum) tritum var. I</i>	34
04935	<i>Erpobdella punctata punctata</i>	2 +	84450	<i>Polypedilum (Uresipedilum) flavum</i>	69 +
05900	<i>Lirceus sp</i>	8 +	84460	<i>Polypedilum (P.) fallax group</i>	69 +
06201	<i>Hyaella azteca</i>	+	84475	<i>Polypedilum (P.) ophioides</i>	69 +
06700	<i>Crangonyx sp</i>	4 +	84540	<i>Polypedilum (Tripodura) scalaenum group</i>	+
08240	<i>Orconectes (Crockerinus) propinquus</i>	1 +	84601	<i>Saetheria species I (sensu Jackson, 1977)</i>	+
11120	<i>Baetis flavistriga</i>	4	84700	<i>Stenochironomus sp</i>	+
11125	<i>Pseudocloeon frondale</i>	1	84800	<i>Tribelos jucundum</i>	27
11130	<i>Baetis intercalaris</i>	+	85264	<i>Cladotanytarsus vanderwulpi group Type 4</i>	+
13400	<i>Stenacron sp</i>	136 +	85400	<i>Micropsectra sp</i>	34
18750	<i>Hexagenia limbata</i>	+	85500	<i>Paratanytarsus sp</i>	517 +
21200	<i>Calopteryx sp</i>	8 +	85615	<i>Rheotanytarsus pellucidus</i>	+
22001	<i>Coenagrionidae</i>	+	85625	<i>Rheotanytarsus sp</i>	+
22300	<i>Argia sp</i>	4 +	85720	<i>Stempellinella fimbriata</i>	32
23909	<i>Boyeria vinosa</i>	2 +	85800	<i>Tanytarsus sp</i>	103 +
45300	<i>Sigara sp</i>	+	85821	<i>Tanytarsus glabrescens group sp 7</i>	654 +
45400	<i>Trichocorixa sp</i>	+	85840	<i>Tanytarsus sepp</i>	103
52200	<i>Cheumatopsyche sp</i>	71 +	95100	<i>Physella sp</i>	1 +
60900	<i>Peltodytes sp</i>	+	96900	<i>Ferrissia sp</i>	89 +
68130	<i>Helichus sp</i>	+	98600	<i>Sphaerium sp</i>	1 +
68601	<i>Ancyronyx variegata</i>	+			
68707	<i>Dubiraphia quadrinotata</i>	+	No. Quantitative Taxa: 41		Total Taxa: 65
68708	<i>Dubiraphia vittata group</i>	+	No. Qualitative Taxa: 49		ICI: 36
68901	<i>Macronychus glabratus</i>	+	Number of Organisms: 3055		Qual EPT: 4
69400	<i>Stenelmis sp</i>	9			
72700	<i>Anopheles sp</i>	+			
74100	<i>Simulium sp</i>	+			
74501	<i>Ceratopogonidae</i>	8 +			
77120	<i>Ablabesmyia mallochi</i>	172 +			
77500	<i>Conchapelopia sp</i>	+			
77800	<i>Helopelopia sp</i>	34			
78140	<i>Labrundinia pilosella</i>	24			
78350	<i>Meropelopia sp</i>	34			
80204	<i>Brillia flavifrons group</i>	+			
80370	<i>Corynoneura lobata</i>	240 +			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	34 +			
82121	<i>Thienemanniella lobapodema</i>	8			
82141	<i>Thienemanniella xena</i>	8			
82730	<i>Chironomus (C.) decorus group</i>	+			
82820	<i>Cryptochironomus sp</i>	69 +			
83040	<i>Dicrotendipes neomodestus</i>	34			
83840	<i>Microtendipes pedellus group</i>	207			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	+			

Ohio EPA/DSW Ecological Assessment Section
 Macroinvertebrate Collection

Site: Swan Creek
 upst. St. Rt. 64

Collection Date: 09/05/2006 River Code: 04-003 RM: 31.00

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
03600	<i>Oligochaeta</i>	8	95100	<i>Physella sp</i>	2 +
05900	<i>Lirceus sp</i>	2 +	96900	<i>Ferrissia sp</i>	27
06700	<i>Crangonyx sp</i>	+			
08240	<i>Orconectes (Crockerinus) propinquus</i>	+	No. Quantitative Taxa: 29		Total Taxa: 45
13400	<i>Stenacron sp</i>	9 +	No. Qualitative Taxa: 31		ICI: 32
21200	<i>Calopteryx sp</i>	16 +	Number of Organisms: 2185		Qual EPT: 3
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	27 +			
23909	<i>Boyeria vinosa</i>	1 +			
52200	<i>Cheumatopsyche sp</i>	34 +			
55300	<i>Ptilostomis sp</i>	+			
60400	<i>Gyrinus sp</i>	+			
68601	<i>Ancyronyx variegata</i>	1			
68700	<i>Dubiraphia sp</i>	4			
68901	<i>Macronychus glabratus</i>	1 +			
69400	<i>Stenelmis sp</i>	4 +			
73601	<i>Simuliidae</i>	+			
74501	<i>Ceratopogonidae</i>	4			
77001	<i>Tanypodinae</i>	+			
77120	<i>Ablabesmyia mallochi</i>	44 +			
77500	<i>Conchapelopia sp</i>	+			
77750	<i>Hayesomyia senata or Thienemannimyia norena</i>	+			
77800	<i>Helopelopia sp</i>	+			
78140	<i>Labrundinia pilosella</i>	4			
80204	<i>Brillia flavifrons group</i>	+			
80370	<i>Corynoneura lobata</i>	56			
81231	<i>Nanocladius (N.) crassicornus or N. (N.) "rectinervis"</i>	22			
81270	<i>Nanocladius (N.) spiniplenus</i>	22			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	109			
82121	<i>Thienemanniella lobapodema</i>	4			
82730	<i>Chironomus (C.) decorus group</i>	+			
83051	<i>Dicrotendipes simpsoni</i>	109			
83410	<i>Harnischia curtilamellata</i>	+			
83840	<i>Microtendipes pedellus group</i>	153 +			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	44 +			
84460	<i>Polypedilum (P.) fallax group</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	+			
85500	<i>Paratanytarsus sp</i>	982 +			
85615	<i>Rheotanytarsus pellucidus</i>	153 +			
85625	<i>Rheotanytarsus sp</i>	109 +			
85720	<i>Stempellinella fimbriata</i>	16			
85821	<i>Tanytarsus glabrescens group sp 7</i>	218			

Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection

Site: Swan Creek
Spencer Rd.

Collection Date: 09/05/2006 River Code: 04-003 RM: 24.60

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	15 +	84750	<i>Stictochironomus sp</i>	+
03600	<i>Oligochaeta</i>	15	84800	<i>Tribelos jucundum</i>	157
05900	<i>Lirceus sp</i>	5 +	85500	<i>Paratanytarsus sp</i>	44 +
06201	<i>Hyalella azteca</i>	+	85625	<i>Rheotanytarsus sp</i>	9 +
06700	<i>Crangonyx sp</i>	30 +	85821	<i>Tanytarsus glabrescens group sp 7</i>	131
08250	<i>Orconectes (Procericambarus) rusticus</i>	+	85840	<i>Tanytarsus sepp</i>	26
11120	<i>Baetis flavistriga</i>	+	95100	<i>Physella sp</i>	1 +
13400	<i>Stenacron sp</i>	64 +	96900	<i>Ferrissia sp</i>	4
17200	<i>Caenis sp</i>	+	98001	<i>Sphaeriidae</i>	1
21200	<i>Calopteryx sp</i>	15 +			
22001	<i>Coenagrionidae</i>	+	No. Quantitative Taxa: 35		Total Taxa: 51
22300	<i>Argia sp</i>	8 +	No. Qualitative Taxa: 32		ICI: 22
24107	<i>Nasiaeschna pentacantha</i>	+	Number of Organisms: 1005		Qual EPT: 5
30000	<i>Plecoptera</i>	4			
45100	<i>Palmacorixa sp</i>	+			
45400	<i>Trichocorixa sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	17 +			
59300	<i>Mystacides sp</i>	+			
60900	<i>Peltodytes sp</i>	+			
68601	<i>Ancyronyx variegata</i>	4			
68708	<i>Dubiraphia vittata group</i>	+			
68901	<i>Macronychus glabratus</i>	5 +			
77120	<i>Ablabesmyia mallochi</i>	17 +			
77500	<i>Conchapelopia sp</i>	9			
77750	<i>Hayesomyia senata or Thienemannimyia norena</i>	26			
78140	<i>Labrundinia pilosella</i>	17 +			
78655	<i>Procladius (Holotanypus) sp</i>	+			
80204	<i>Brillia flavifrons group</i>	+			
80360	<i>Corynoneura "celeripes" (sensu Simpson & Bode, 1980)</i>	4			
80370	<i>Corynoneura lobata</i>	28			
81231	<i>Nanocladius (N.) crassicornus or N. (N.) "rectinervis"</i>	9			
82121	<i>Thienemanniella lobapodema</i>	8			
82820	<i>Cryptochironomus sp</i>	+			
83040	<i>Dicrotendipes neomodestus</i>	9			
83840	<i>Microtendipes pedellus group</i>	35			
84155	<i>Paralauterborniella nigrohalteralis</i>	9			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	17			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	9			
84460	<i>Polypedilum (P.) fallax group</i>	26 +			
84470	<i>Polypedilum (P.) illinoense</i>	218 +			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	9 +			
84700	<i>Stenochironomus sp</i>	+			

Ohio EPA/DSW Ecological Assessment Section
 Macroinvertebrate Collection

Site: Swan Creek
 Stitt Rd.

Collection Date: 09/07/2006 River Code: 04-003 RM: 21.70

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
00401	<i>Spongillidae</i>	+	85800	<i>Tanytarsus sp</i>	+
01801	<i>Turbellaria</i>	20 +	85821	<i>Tanytarsus glabrescens group sp 7</i>	6 +
03600	<i>Oligochaeta</i>	+	86100	<i>Chrysops sp</i>	+
05800	<i>Caecidotea sp</i>	5	87540	<i>Hemerodromia sp</i>	2
05900	<i>Lirceus sp</i>	+	93900	<i>Elimia sp</i>	1 +
06700	<i>Crangonyx sp</i>	+	98600	<i>Sphaerium sp</i>	+
08250	<i>Orconectes (Procericambarus) rusticus</i>	+	99860	<i>Lampsilis radiata luteola</i>	+
11120	<i>Baetis flavistriga</i>	+	<hr/> No. Quantitative Taxa: 25 Total Taxa: 50 No. Qualitative Taxa: 40 ICI: 36 Number of Organisms: 3700 Qual EPT: 7		
11130	<i>Baetis intercalaris</i>	607 +			
11250	<i>Centroptilum sp (w/o hindwing pads)</i>	+			
13400	<i>Stenacron sp</i>	503 +			
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	3 +			
22300	<i>Argia sp</i>	21 +			
42700	<i>Belostoma sp</i>	+			
43300	<i>Ranatra sp</i>	+			
45300	<i>Sigara sp</i>	+			
45400	<i>Trichocorixa sp</i>	+			
47600	<i>Sialis sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	1711 +			
59400	<i>Nectopsyche sp</i>	+			
60900	<i>Peltodytes sp</i>	+			
68130	<i>Helichus sp</i>	+			
68601	<i>Ancyronyx variegata</i>	1			
68708	<i>Dubiraphia vittata group</i>	+			
68901	<i>Macronychus glabratus</i>	45 +			
69400	<i>Stenelmis sp</i>	1 +			
74100	<i>Simulium sp</i>	245 +			
74650	<i>Atrichopogon sp</i>	18			
77120	<i>Ablabesmyia mallochi</i>	+			
77500	<i>Conchapelopia sp</i>	6			
77750	<i>Hayesomyia senata or Thienemannimyia norena</i>	18			
80370	<i>Corynoneura lobata</i>	8			
80420	<i>Cricotopus (C.) bicinctus</i>	6			
81231	<i>Nanocladius (N.) crassicornus or N. (N.) "rectinervis"</i>	+			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	91 +			
84315	<i>Phaenopsectra flavipes</i>	6			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	164 +			
84470	<i>Polypedilum (P.) illinoense</i>	6 +			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	+			
85500	<i>Paratanytarsus sp</i>	6			
85615	<i>Rheotanytarsus pellucidus</i>	+			
85625	<i>Rheotanytarsus sp</i>	200 +			

Ohio EPA/DSW Ecological Assessment Section
 Macroinvertebrate Collection

Site: Swan Creek
 Monclova Rd.

Collection Date: 09/06/2006 River Code: 04-003 RM: 18.50

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	2 +	84750	<i>Stictochironomus sp</i>	3 +
03600	<i>Oligochaeta</i>	15	85625	<i>Rheotanytarsus sp</i>	88 +
04901	<i>Erpobdellidae</i>	+	85821	<i>Tanytarsus glabrescens group sp 7</i>	6
05900	<i>Lirceus sp</i>	20 +	93900	<i>Elimia sp</i>	+
06700	<i>Crangonyx sp</i>	9 +	96900	<i>Ferrissia sp</i>	4
08250	<i>Orconectes (Procericambarus) rusticus</i>	+	98600	<i>Sphaerium sp</i>	6 +
11120	<i>Baetis flavistriga</i>	17 +			
11130	<i>Baetis intercalaris</i>	334 +	No. Quantitative Taxa: 36		Total Taxa: 50
11651	<i>Procloeon sp (w/o hindwing pads)</i>	+	No. Qualitative Taxa: 34		ICI: 38
12900	<i>Heptagenia sp</i>	2	Number of Organisms: 1009		Qual EPT: 9
13000	<i>Leucrocuta sp</i>	3 +			
13400	<i>Stenacron sp</i>	62 +			
13521	<i>Stenonema femoratum</i>	6 +			
13561	<i>Maccaffertium pulchellum</i>	1			
21200	<i>Calopteryx sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	2 +			
45900	<i>Notonecta sp</i>	+			
50315	<i>Chimarra obscura</i>	2 +			
52200	<i>Cheumatopsyche sp</i>	119 +			
52530	<i>Hydropsyche depravata group</i>	+			
68075	<i>Psephenus herricki</i>	+			
68601	<i>Ancyronyx variegata</i>	+			
68708	<i>Dubiraphia vittata group</i>	3 +			
68901	<i>Macronychus glabratus</i>	46 +			
69400	<i>Stenelmis sp</i>	5 +			
70501	<i>Tipulidae</i>	1			
74100	<i>Simulium sp</i>	2 +			
77120	<i>Ablabesmyia mallochi</i>	3			
77500	<i>Conchapelopia sp</i>	6			
77750	<i>Hayesomyia senata or Thienemannimyia norena</i>	25			
77800	<i>Helopelopia sp</i>	6			
78140	<i>Labrundinia pilosella</i>	+			
78450	<i>Nilotanypus fimbriatus</i>	3			
80204	<i>Brillia flavifrons group</i>	+			
80370	<i>Corynoneura lobata</i>	16			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	9			
82820	<i>Cryptochironomus sp</i>	+			
83840	<i>Microtendipes pedellus group</i>	13 +			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	6			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	123 +			
84460	<i>Polypedilum (P.) fallax group</i>	9			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	32			

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Swan Creek
Salisbury Rd.

Collection Date: 09/06/2006 River Code: 04-003 RM: 15.30

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01320	<i>Hydra sp</i>	10	93900	<i>Elimia sp</i>	+
01801	<i>Turbellaria</i>	28 +	98600	<i>Sphaerium sp</i>	+
03600	<i>Oligochaeta</i>	+	99100	<i>Pyganodon grandis</i>	+
05900	<i>Lirceus sp</i>	1 +	99240	<i>Lasmigona complanata</i>	+
06700	<i>Crangonyx sp</i>	+	99720	<i>Potamilus ohioensis</i>	+
11120	<i>Baetis flavistriga</i>	+	99800	<i>Villosa fabalis</i>	+
11130	<i>Baetis intercalaris</i>	715 +	99860	<i>Lampsilis radiata luteola</i>	+
11651	<i>Procloeon sp (w/o hindwing pads)</i>	+			
11670	<i>Procloeon viridoculare</i>	+	No. Quantitative Taxa: 25		Total Taxa: 50
13000	<i>Leucrocuta sp</i>	+	No. Qualitative Taxa: 41		ICI: 38
13400	<i>Stenacron sp</i>	155 +	Number of Organisms: 2862		Qual EPT: 12
16700	<i>Tricorythodes sp</i>	+			
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	2 +			
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	37 +			
45100	<i>Palmacorixa sp</i>	+			
50315	<i>Chimarra obscura</i>	7			
52200	<i>Cheumatopsyche sp</i>	783 +			
52530	<i>Hydropsyche depravata group</i>	21 +			
53800	<i>Hydroptila sp</i>	+			
59400	<i>Nectopsyche sp</i>	+			
68075	<i>Psephenus herricki</i>	+			
68601	<i>Ancyronyx variegata</i>	2 +			
68708	<i>Dubiraphia vittata group</i>	+			
68901	<i>Macronychus glabratus</i>	25 +			
69400	<i>Stenelmis sp</i>	3 +			
74100	<i>Simulium sp</i>	500 +			
74501	<i>Ceratopogonidae</i>	8			
77120	<i>Ablabesmyia mallochi</i>	+			
80360	<i>Corynoneura "celeripes" (sensu Simpson & Bode, 1980)</i>	16			
80370	<i>Corynoneura lobata</i>	16			
81231	<i>Nanocladius (N.) crassicornus or N. (N.) "rectinervis"</i>	5			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	98 +			
82141	<i>Thienemanniella xena</i>	10			
83840	<i>Microtendipes pedellus group</i>	+			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	93 +			
84470	<i>Polypedilum (P.) illinoense</i>	51			
85615	<i>Rheotanytarsus pellucidus</i>	+			
85625	<i>Rheotanytarsus sp</i>	262 +			
85821	<i>Tanytarsus glabrescens group sp 7</i>	10 +			
87540	<i>Hemerodromia sp</i>	4			

Ohio EPA/DSW Ecological Assessment Section
 Macroinvertebrate Collection

Site: Swan Creek

Collection Date: 09/07/2006 River Code: 04-003 RM: 10.90

dst. U.S. Rt. 20

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
00401	<i>Spongillidae</i>	+	85500	<i>Paratanytarsus sp</i>	41 +
01320	<i>Hydra sp</i>	6	85625	<i>Rheotanytarsus sp</i>	244 +
01801	<i>Turbellaria</i>	+	85821	<i>Tanytarsus glabrescens group sp 7</i>	27
03600	<i>Oligochaeta</i>	+	87540	<i>Hemerodromia sp</i>	3
04964	<i>Mooreobdella microstoma</i>	+	96900	<i>Ferrissia sp</i>	15
05900	<i>Lirceus sp</i>	+	97601	<i>Corbicula fluminea</i>	+
06840	<i>Gammarus pseudolimnaeus</i>	33 +	98001	<i>Sphaeriidae</i>	4
08240	<i>Orconectes (Crockerinus) propinquus</i>	+	98600	<i>Sphaerium sp</i>	+
08601	<i>Hydrachnidia</i>	+			
11120	<i>Baetis flavistriga</i>	10	No. Quantitative Taxa: 24		Total Taxa: 52
11130	<i>Baetis intercalaris</i>	250 +	No. Qualitative Taxa: 39		ICI: 36
13400	<i>Stenacron sp</i>	200 +	Number of Organisms: 1304		Qual EPT: 6
13521	<i>Stenonema femoratum</i>	1			
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	1 +			
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	5 +			
24107	<i>Nasiaeschna pentacantha</i>	+			
45400	<i>Trichocorixa sp</i>	+			
49200	<i>Climacia sp</i>	+			
50315	<i>Chimarra obscura</i>	+			
52200	<i>Cheumatopsyche sp</i>	157 +			
52530	<i>Hydropsyche depravata group</i>	+			
63900	<i>Laccophilus sp</i>	+			
68601	<i>Ancyronyx variegata</i>	+			
68708	<i>Dubiraphia vittata group</i>	+			
68901	<i>Macronychus glabratus</i>	8 +			
74100	<i>Simulium sp</i>	9 +			
77120	<i>Ablabesmyia mallochi</i>	+			
77750	<i>Hayesomyia senata or Thienemannimyia norena</i>	7			
78450	<i>Nilotanypus fimbriatus</i>	4			
78500	<i>Paramerina fragilis</i>	+			
78655	<i>Procladius (Holotanypus) sp</i>	+			
80370	<i>Corynoneura lobata</i>	16			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	204			
82121	<i>Thienemanniella lobapodema</i>	4			
82141	<i>Thienemanniella xena</i>	8			
82820	<i>Cryptochironomus sp</i>	+			
83410	<i>Harnischia curtilamellata</i>	+			
84155	<i>Paralauterborniella nigrohalteralis</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	47 +			
84460	<i>Polypedilum (P.) fallax group</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84700	<i>Stenochironomus sp</i>	+			

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Swan Creek
upst. South Ave.

Collection Date: 09/07/2006 River Code: 04-003 RM: 4.40

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01320	<i>Hydra sp</i>	70	97601	<i>Corbicula fluminea</i>	26 +
01801	<i>Turbellaria</i>	143 +	98200	<i>Pisidium sp</i>	+
03600	<i>Oligochaeta</i>	172 +	98600	<i>Sphaerium sp</i>	+
04964	<i>Mooreobdella microstoma</i>	+			
05800	<i>Caecidotea sp</i>	11 +	No. Quantitative Taxa: 30		Total Taxa: 47
05900	<i>Lirceus sp</i>	1 +	No. Qualitative Taxa: 30		ICI: 16
06700	<i>Crangonyx sp</i>	+	Number of Organisms: 2120		Qual EPT: 3
08601	<i>Hydrachnidia</i>	1			
13400	<i>Stenacron sp</i>	+			
17200	<i>Caenis sp</i>	1			
21200	<i>Calopteryx sp</i>	+			
22001	<i>Coenagrionidae</i>	1 +			
22300	<i>Argia sp</i>	3 +			
26700	<i>Macromia sp</i>	+			
43570	<i>Neoplea sp</i>	+			
45400	<i>Trichocorixa sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	2 +			
53501	<i>Hydroptilidae</i>	+			
60900	<i>Peltodytes sp</i>	+			
68601	<i>Ancyronyx variegata</i>	1 +			
68708	<i>Dubiraphia vittata group</i>	1 +			
78655	<i>Procladius (Holotanypus) sp</i>	+			
80370	<i>Corynoneura lobata</i>	25			
82121	<i>Thienemanniella lobapodema</i>	25			
82820	<i>Cryptochironomus sp</i>	+			
83002	<i>Dicrotendipes modestus</i>	14			
83003	<i>Dicrotendipes fumidus</i>	+			
83040	<i>Dicrotendipes neomodestus</i>	114 +			
83050	<i>Dicrotendipes lucifer</i>	557			
83051	<i>Dicrotendipes simpsoni</i>	715			
83300	<i>Glyptotendipes (G.) sp</i>	14			
84155	<i>Paralauterborniella nigrohalteralis</i>	14			
84300	<i>Phaenopsectra obediens group</i>	42			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	29			
84700	<i>Stenochironomus sp</i>	+			
84800	<i>Tribelos jucundum</i>	+			
85500	<i>Paratanytarsus sp</i>	29			
85625	<i>Rheotanytarsus sp</i>	+			
85821	<i>Tanytarsus glabrescens group sp 7</i>	29			
93900	<i>Elimia sp</i>	2			
95100	<i>Physella sp</i>	2 +			
96120	<i>Menetus (Micromenetus) dilatatus</i>	4			
96900	<i>Ferrissia sp</i>	71			
96930	<i>Laevapex fuscus</i>	1 +			

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Swan Creek
dst. South Ave.

Collection Date: 07/26/2006 River Code: 04-003 RM: 4.10

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01320	<i>Hydra sp</i>	4	85625	<i>Rheotanytarsus sp</i>	12 +
03040	<i>Fredericella sp</i>	+	85800	<i>Tanytarsus sp</i>	4
03600	<i>Oligochaeta</i>	62 +	85821	<i>Tanytarsus glabrescens group sp 7</i>	62 +
04960	<i>Mooreobdella sp</i>	+	93900	<i>Elimia sp</i>	1 +
05800	<i>Caecidotea sp</i>	21 +	95501	<i>Planorbidae</i>	2
05900	<i>Lirceus sp</i>	15 +	97601	<i>Corbicula fluminea</i>	+
06700	<i>Crangonyx sp</i>	2 +			
08601	<i>Hydrachnidia</i>	2 +	No. Quantitative Taxa: 33		Total Taxa: 50
11130	<i>Baetis intercalaris</i>	2 +	No. Qualitative Taxa: 37		ICI: 22
13400	<i>Stenacron sp</i>	2 +	Number of Organisms: 700		Qual EPT: 6
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	1 +			
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	8 +			
42700	<i>Belostoma sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	94 +			
52530	<i>Hydropsyche depravata group</i>	+			
53800	<i>Hydroptila sp</i>	1 +			
68708	<i>Dubiraphia vittata group</i>	+			
68901	<i>Macronychus glabratus</i>	+			
77120	<i>Ablabesmyia mallochi</i>	15 +			
77750	<i>Hayesomyia senata or Thienemannimyia norena</i>	31 +			
77800	<i>Helopelopia sp</i>	8			
78450	<i>Nilotanypus fimbriatus</i>	6			
80370	<i>Corynoneura lobata</i>	12			
80410	<i>Cricotopus (C.) sp</i>	4			
80420	<i>Cricotopus (C.) bicinctus</i>	+			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	23 +			
82141	<i>Thienemanniella xena</i>	2			
82820	<i>Cryptochironomus sp</i>	19			
83000	<i>Dicrotendipes sp</i>	12			
83040	<i>Dicrotendipes neomodestus</i>	23			
83410	<i>Harnischia curtilamellata</i>	+			
84155	<i>Paralauterborniella nigrohalteralis</i>	+			
84300	<i>Phaenopsectra obediens group</i>	+			
84315	<i>Phaenopsectra flavipes</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	15 +			
84460	<i>Polypedilum (P.) fallax group</i>	50			
84520	<i>Polypedilum (Tripodura) halterale group</i>	4			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	162 +			
84612	<i>Saetheria tylus</i>	+			
84700	<i>Stenochironomus sp</i>	+			
85500	<i>Paratanytarsus sp</i>	19 +			
85615	<i>Rheotanytarsus pellucidus</i>	+			

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Swan Creek
City Park Ave.

Collection Date: 09/07/2006 River Code: 04-003 RM: 1.60

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
03600	<i>Oligochaeta</i>	48 +			
04901	<i>Erpobdellidae</i>	+			
04964	<i>Mooreobdella microstoma</i>	1			
05800	<i>Caecidotea sp</i>	2 +			
13400	<i>Stenacron sp</i>	+			
17200	<i>Caenis sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	1			
53501	<i>Hydroptilidae</i>	+			
60900	<i>Peltodytes sp</i>	+			
77120	<i>Ablabesmyia mallochi</i>	63 +			
78655	<i>Procladius (Holotanypus) sp</i>	157 +			
82730	<i>Chironomus (C.) decorus group</i>	+			
82820	<i>Cryptochironomus sp</i>	16			
83040	<i>Dicrotendipes neomodestus</i>	47			
83050	<i>Dicrotendipes lucifer</i>	1541 +			
83300	<i>Glyptotendipes (G.) sp</i>	47			
84300	<i>Phaenopsectra obediens group</i>	31			
84315	<i>Phaenopsectra flavipes</i>	+			
84460	<i>Polypedilum (P.) fallax group</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	16 +			
84520	<i>Polypedilum (Tripodura) halterale group</i>	31			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	94 +			
85821	<i>Tanytarsus glabrescens group sp 7</i>	16			
96930	<i>Laevapex fuscus</i>	+			
97601	<i>Corbicula fluminea</i>	+			

No. Quantitative Taxa: 15 Total Taxa: 27
 No. Qualitative Taxa: 19 ICI: 16
 Number of Organisms: 2111 Qual EPT: 3

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Wolf Creek
Albon Rd.

Collection Date: 08/08/2006 River Code: 04-004 RM: 4.20

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
03600	<i>Oligochaeta</i>	+			
04960	<i>Mooreobdella sp</i>	+			
05800	<i>Caecidotea sp</i>	+			
05900	<i>Lirceus sp</i>	+			
06201	<i>Hyalella azteca</i>	+			
08250	<i>Orconectes (Procericambarus) rusticus</i>	+			
08601	<i>Hydrachnidia</i>	+			
11120	<i>Baetis flavistriga</i>	+			
11130	<i>Baetis intercalaris</i>	+			
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	+			
23700	<i>Anax sp</i>	+			
45300	<i>Sigara sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
52530	<i>Hydropsyche depravata group</i>	+			
60800	<i>Haliplus sp</i>	+			
60900	<i>Peltodytes sp</i>	+			
63900	<i>Laccophilus sp</i>	+			
65800	<i>Berosus sp</i>	+			
68707	<i>Dubiraphia quadrinotata</i>	+			
68901	<i>Macronychus glabratus</i>	+			
72700	<i>Anopheles sp</i>	+			
74100	<i>Simulium sp</i>	+			
77120	<i>Ablabesmyia mallochi</i>	+			
77500	<i>Conchapelopia sp</i>	+			
80420	<i>Cricotopus (C.) bicinctus</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	+			
84700	<i>Stenochironomus sp</i>	+			
85500	<i>Paratanytarsus sp</i>	+			
85625	<i>Rheotanytarsus sp</i>	+			
85800	<i>Tanytarsus sp</i>	+			
93200	<i>Hydrobiidae</i>	+			
96280	<i>Planorbella (Pierosoma) trivolvis</i>	+			
98600	<i>Sphaerium sp</i>	+			

No. Quantitative Taxa: 0 Total Taxa: 36
 No. Qualitative Taxa: 36 ICI:
 Number of Organisms: 0 Qual EPT: 5

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Wolf Creek
Holland Rd.

Collection Date: 08/08/2006 River Code: 04-004 RM: 2.00

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
03360	<i>Plumatella sp</i>	+			
03600	<i>Oligochaeta</i>	+			
05800	<i>Caecidotea sp</i>	+			
06201	<i>Hyalella azteca</i>	+			
08250	<i>Orconectes (Procericambarus) rusticus</i>	+			
08601	<i>Hydrachnidia</i>	+			
11130	<i>Baetis intercalaris</i>	+			
13400	<i>Stenacron sp</i>	+			
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
23700	<i>Anax sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
52530	<i>Hydropsyche depravata group</i>	+			
57900	<i>Pycnopsyche sp</i>	+			
59300	<i>Mystacides sp</i>	+			
68601	<i>Ancyronyx variegata</i>	+			
68707	<i>Dubiraphia quadrinotata</i>	+			
68901	<i>Macronychus glabratus</i>	+			
74100	<i>Simulium sp</i>	+			
77500	<i>Conchapelopia sp</i>	+			
78500	<i>Paramerina fragilis</i>	+			
78655	<i>Procladius (Holotanypus) sp</i>	+			
78702	<i>Psectrotanypus dyari</i>	+			
80204	<i>Brillia flavifrons group</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
84116	<i>Paracladopelma nereis</i>	+			
84155	<i>Paralauterborniella nigrohalteralis</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84700	<i>Stenochironomus sp</i>	+			
85615	<i>Rheotanytarsus pellucidus</i>	+			
85625	<i>Rheotanytarsus sp</i>	+			
95100	<i>Physella sp</i>	+			
98200	<i>Pisidium sp</i>	+			

No. Quantitative Taxa: 0 Total Taxa: 35
 No. Qualitative Taxa: 35 ICI:
 Number of Organisms: 0 Qual EPT: 7

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Wolf Creek
Holland-Sylvania Rd.

Collection Date: 09/06/2006 River Code: 04-004 RM: 0.50

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	74 +			
03600	<i>Oligochaeta</i>	89 +			
04664	<i>Helobdella stagnalis</i>	1			
04964	<i>Mooreobdella microstoma</i>	5 +			
05900	<i>Lirceus sp</i>	94 +			
06201	<i>Hyalella azteca</i>	+			
06840	<i>Gammarus pseudolimnaeus</i>	8 +			
08220	<i>Orconectes (Gremicambarus) immunis</i>	+			
08240	<i>Orconectes (Crockerinus) propinquus</i>	+			
08250	<i>Orconectes (Procericambarus) rusticus</i>	1 +			
08601	<i>Hydrachnidia</i>	+			
11120	<i>Baetis flavistriga</i>	1			
11130	<i>Baetis intercalaris</i>	204 +			
13400	<i>Stenacron sp</i>	16 +			
21200	<i>Calopteryx sp</i>	5 +			
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	5 +			
23909	<i>Boyeria vinosa</i>	1			
52200	<i>Cheumatopsyche sp</i>	296 +			
52530	<i>Hydropsyche depravata group</i>	12 +			
53800	<i>Hydroptila sp</i>	+			
68601	<i>Ancyronyx variegata</i>	9			
68901	<i>Macronychus glabratus</i>	6 +			
69400	<i>Stenelmis sp</i>	10 +			
74100	<i>Simulium sp</i>	9 +			
77500	<i>Conchapelopia sp</i>	41 +			
77800	<i>Helopelopia sp</i>	82			
78350	<i>Meropelopia sp</i>	14			
78450	<i>Nilotanytus fimbriatus</i>	8			
80370	<i>Corynoneura lobata</i>	64			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	192 +			
82820	<i>Cryptochironomus sp</i>	14 +			
84116	<i>Paracladopelma nereis</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	151 +			
84460	<i>Polypedilum (P.) fallax group</i>	27			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	192 +			
85500	<i>Paratanytarsus sp</i>	247 +			
85615	<i>Rheotanytarsus pellucidus</i>	14 +			
85625	<i>Rheotanytarsus sp</i>	14 +			
85800	<i>Tanytarsus sp</i>	+			
85821	<i>Tanytarsus glabrescens group sp 7</i>	14			
95100	<i>Physella sp</i>	+			
96900	<i>Ferrissia sp</i>	42			
98001	<i>Sphaeriidae</i>	8			

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Cairl Creek
Pilliad Rd.

Collection Date: 08/08/2006 River Code: 04-005 RM: 1.30

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
00401	<i>Spongillidae</i>	+			
01801	<i>Turbellaria</i>	+			
03360	<i>Plumatella sp</i>	+			
03600	<i>Oligochaeta</i>	+			
04666	<i>Helobdella triserialis</i>	+			
04685	<i>Placobdella ornata</i>	+			
04935	<i>Erpobdella punctata punctata</i>	+			
04964	<i>Mooreobdella microstoma</i>	+			
05900	<i>Lirceus sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
23700	<i>Anax sp</i>	+			
23909	<i>Boyeria vinosa</i>	+			
45300	<i>Sigara sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
74100	<i>Simulium sp</i>	+			
77120	<i>Ablabesmyia mallochi</i>	+			
77500	<i>Conchapelopia sp</i>	+			
78140	<i>Labrundinia pilosella</i>	+			
78655	<i>Procladius (Holotanypus) sp</i>	+			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
83040	<i>Dicrotendipes neomodestus</i>	+			
83051	<i>Dicrotendipes simpsoni</i>	+			
84155	<i>Paralauterborniella nigrohalteralis</i>	+			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	+			
84315	<i>Phaenopsectra flavipes</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	+			
84700	<i>Stenochironomus sp</i>	+			
85500	<i>Paratanytarsus sp</i>	+			
93025	<i>Bithynia tentaculata</i>	+			
95100	<i>Physella sp</i>	+			
96801	<i>Ancylidae</i>	+			
98600	<i>Sphaerium sp</i>	+			

No. Quantitative Taxa: 0 Total Taxa: 35
 No. Qualitative Taxa: 35 ICI:
 Number of Organisms: 0 Qual EPT: 1

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Blue Creek

Collection Date: 08/09/2006 River Code: 04-006 RM: 10.00

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
03600	<i>Oligochaeta</i>	+			
04666	<i>Helobdella triserialis</i>	+			
05900	<i>Lirceus sp</i>	+			
06201	<i>Hyaella azteca</i>	+			
11200	<i>Callibaetis sp</i>	+			
17200	<i>Caenis sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
42700	<i>Belostoma sp</i>	+			
59728	<i>Triaenodes marginatus</i>	+			
60800	<i>Haliplus sp</i>	+			
60900	<i>Peltodytes sp</i>	+			
64050	<i>Liodessus sp</i>	+			
65800	<i>Berosus sp</i>	+			
67800	<i>Tropisternus sp</i>	+			
72700	<i>Anopheles sp</i>	+			
74501	<i>Ceratopogonidae</i>	+			
77355	<i>Clinotanytus pinguis</i>	+			
84155	<i>Paralauterborniella nigrohalteralis</i>	+			
84520	<i>Polypedilum (Tripodura) halterale group</i>	+			
86100	<i>Chrysops sp</i>	+			
92613	<i>Cipangopaludina chinensis malleata</i>	+			
95100	<i>Physella sp</i>	+			
98200	<i>Pisidium sp</i>	+			

No. Quantitative Taxa: 0	Total Taxa: 24
No. Qualitative Taxa: 24	ICI:
Number of Organisms: 0	Qual EPT: 3

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Blue Creek
Manore Rd.

Collection Date: 08/10/2006 River Code: 04-006 RM: 7.80

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
00401	<i>Spongillidae</i>	+	<hr/> No. Quantitative Taxa: 0 Total Taxa: 41 No. Qualitative Taxa: 41 ICI: Number of Organisms: 0 Qual EPT: 10		
01801	<i>Turbellaria</i>	+			
04685	<i>Placobdella ornata</i>	+			
04935	<i>Erpobdella punctata punctata</i>	+			
05900	<i>Lirceus sp</i>	+			
08250	<i>Orconectes (Procericambarus) rusticus</i>	+			
08601	<i>Hydrachnidia</i>	+			
11130	<i>Baetis intercalaris</i>	+			
11150	<i>Pseudocloeon propinquum</i>	+			
11200	<i>Callibaetis sp</i>	+			
13400	<i>Stenacron sp</i>	+			
17200	<i>Caenis sp</i>	+			
18750	<i>Hexagenia limbata</i>	+			
21200	<i>Calopteryx sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
23700	<i>Anax sp</i>	+			
28500	<i>Libellula sp</i>	+			
45100	<i>Palmacorixa sp</i>	+			
45400	<i>Trichocorixa sp</i>	+			
47600	<i>Sialis sp</i>	+			
49400	<i>Sisyra sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
53800	<i>Hydroptila sp</i>	+			
59310	<i>Mystacides sepulchralis</i>	+			
59570	<i>Oecetis nocturna</i>	+			
60900	<i>Peltodytes sp</i>	+			
68708	<i>Dubiraphia vittata group</i>	+			
68901	<i>Macronychus glabratus</i>	+			
74100	<i>Simulium sp</i>	+			
77355	<i>Clinotanytus pinguis</i>	+			
77500	<i>Conchapelopia sp</i>	+			
80510	<i>Cricotopus (Isocladius) sylvestris group</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84700	<i>Stenochironomus sp</i>	+			
84800	<i>Tribelos jucundum</i>	+			
85260	<i>Cladotanytarsus vanderwulpi group</i>	+			
85625	<i>Rheotanytarsus sp</i>	+			
87540	<i>Hemerodromia sp</i>	+			
92613	<i>Cipangopaludina chinensis malleata</i>	+			
98600	<i>Sphaerium sp</i>	+			

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Blue Creek
St. Rt. 295

Collection Date: 09/06/2006 River Code: 04-006 RM: 5.50

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
00653	<i>Eunapius fragilis</i>	+	80420	<i>Cricotopus (C.) bicinctus</i>	+
01320	<i>Hydra sp</i>	20	80430	<i>Cricotopus (C.) tremulus group</i>	13
01801	<i>Turbellaria</i>	188 +	81632	<i>Parakiefferiella n.sp 2</i>	13 +
03600	<i>Oligochaeta</i>	32 +	81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	13
04935	<i>Erpobdella punctata punctata</i>	1	82121	<i>Thienemanniella lobapodema</i>	4
04960	<i>Mooreobdella sp</i>	+	82130	<i>Thienemanniella similis</i>	8
05900	<i>Lirceus sp</i>	144 +	82141	<i>Thienemanniella xena</i>	24 +
06201	<i>Hyalella azteca</i>	+	82820	<i>Cryptochironomus sp</i>	+
06700	<i>Crangonyx sp</i>	+	82885	<i>Cryptotendipes pseudotener</i>	+
08601	<i>Hydrachnidia</i>	8 +	83040	<i>Dicrotendipes neomodestus</i>	+
11120	<i>Baetis flavistriga</i>	10	84155	<i>Paralauterborniella nigrohalteralis</i>	+
11121	<i>Pseudocloeon sp</i>	+	84315	<i>Phaenopsectra flavipes</i>	+
11130	<i>Baetis intercalaris</i>	114 +	84450	<i>Polypedilum (Uresipedilum) flavum</i>	211 +
11200	<i>Callibaetis sp</i>	+	84470	<i>Polypedilum (P.) illinoense</i>	13 +
13000	<i>Leucrocuta sp</i>	1	84700	<i>Stenochironomus sp</i>	+
13400	<i>Stenacron sp</i>	439 +	84800	<i>Tribelos jucundum</i>	53
13521	<i>Stenonema femoratum</i>	1	85500	<i>Paratanytarsus sp</i>	26 +
17200	<i>Caenis sp</i>	+	85615	<i>Rheotanytarsus pellucidus</i>	26 +
21200	<i>Calopteryx sp</i>	+	85625	<i>Rheotanytarsus sp</i>	238 +
22001	<i>Coenagrionidae</i>	9 +	85800	<i>Tanytarsus sp</i>	+
23700	<i>Anax sp</i>	+	85821	<i>Tanytarsus glabrescens group sp 7</i>	1030 +
28955	<i>Plathemis lydia</i>	+	85840	<i>Tanytarsus sepp</i>	13
45100	<i>Palmacorixa sp</i>	+	86200	<i>Tabanus sp</i>	+
45400	<i>Trichocorixa sp</i>	+	92613	<i>Cipangopaludina chinensis malleata</i>	+
52200	<i>Cheumatopsyche sp</i>	47 +	95100	<i>Physella sp</i>	+
53800	<i>Hydroptila sp</i>	72 +	95907	<i>Gyraulus (Torquis) parvus</i>	+
59310	<i>Mystacides sepulchralis</i>	+	96002	<i>Helisoma anceps anceps</i>	+
59410	<i>Nectopsyche diarina</i>	3	98600	<i>Sphaerium sp</i>	+
59700	<i>Triaenodes sp</i>	+			
60800	<i>Haliphus sp</i>	+	No. Quantitative Taxa: 32		Total Taxa: 72
60900	<i>Peltodytes sp</i>	+	No. Qualitative Taxa: 59		ICI: 46
63300	<i>Hydroporus sp</i>	+	Number of Organisms: 2947		Qual EPT: 9
67700	<i>Paracymus sp</i>	+			
68707	<i>Dubiraphia quadrinotata</i>	+			
68708	<i>Dubiraphia vittata group</i>	+			
68901	<i>Macronychus glabratus</i>	20 +			
72700	<i>Anopheles sp</i>	+			
74100	<i>Simulium sp</i>	+			
77355	<i>Clinotanypus pinguis</i>	+			
77500	<i>Conchapelopia sp</i>	53 +			
77750	<i>Hayesomyia senata or Thienemannimyia norena</i>	+			
78500	<i>Paramerina fragilis</i>	+			
78655	<i>Procladius (Holotanypus) sp</i>	+			
80370	<i>Corynoneura lobata</i>	100			

Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection

Site: Blue Creek

Collection Date: 09/06/2006 River Code: 04-006 RM: 0.70

Finzel Rd.

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01320	<i>Hydra sp</i>	2	84700	<i>Stenochironomus sp</i>	+
01801	<i>Turbellaria</i>	106 +	85400	<i>Micropsectra sp</i>	9
03600	<i>Oligochaeta</i>	4	85500	<i>Paratanytarsus sp</i>	123 +
04964	<i>Mooreobdella microstoma</i>	+	85615	<i>Rheotanytarsus pellucidus</i>	85 +
05900	<i>Lirceus sp</i>	28 +	85625	<i>Rheotanytarsus sp</i>	85
06700	<i>Crangonyx sp</i>	2 +	85800	<i>Tanytarsus sp</i>	+
08250	<i>Orconectes (Procericambarus) rusticus</i>	+	85821	<i>Tanytarsus glabrescens group sp 7</i>	208 +
11120	<i>Baetis flavistriga</i>	7 +	85840	<i>Tanytarsus sepp</i>	9
11125	<i>Pseudocloeon frondale</i>	2	96900	<i>Ferrissia sp</i>	2
11130	<i>Baetis intercalaris</i>	20 +	98600	<i>Sphaerium sp</i>	+
11150	<i>Pseudocloeon propinquum</i>	+			
13400	<i>Stenacron sp</i>	87 +	No. Quantitative Taxa: 34		Total Taxa: 54
13521	<i>Stenonema femoratum</i>	+	No. Qualitative Taxa: 40		ICI: 30
21200	<i>Calopteryx sp</i>	5 +	Number of Organisms: 1598		Qual EPT: 6
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	17 +			
23909	<i>Boyeria vinosa</i>	+			
27500	<i>Somatochlora sp</i>	+			
45300	<i>Sigara sp</i>	+			
47600	<i>Sialis sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	70 +			
60900	<i>Peltodytes sp</i>	+			
68201	<i>Scirtidae</i>	8			
68708	<i>Dubiraphia vittata group</i>	+			
68901	<i>Macronychus glabratus</i>	13 +			
69400	<i>Stenelmis sp</i>	2 +			
74100	<i>Simulium sp</i>	+			
77120	<i>Ablabesmyia mallochi</i>	9 +			
77500	<i>Conchapelopia sp</i>	28 +			
78140	<i>Labrundinia pilosella</i>	8 +			
78450	<i>Nilotanypus fimbriatus</i>	8			
78600	<i>Pentaneura inconspicua</i>	9			
78655	<i>Procladius (Holotanypus) sp</i>	+			
80360	<i>Corynoneura "celeripes" (sensu Simpson & Bode, 1980)</i>	16			
80363	<i>Corynoneura sp 12</i>	8			
80370	<i>Corynoneura lobata</i>	260			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	66 +			
82121	<i>Thienemanniella lobapodema</i>	8			
83410	<i>Harnischia curtilamellata</i>	+			
84155	<i>Paralauterborniella nigrohalteralis</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	142 +			
84460	<i>Polypedilum (P.) fallax group</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	142 +			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	+			

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Harris Ditch
St. Rt. 295

Collection Date: 08/10/2006 River Code: 04-008 RM: 1.60

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
04664	<i>Helobdella stagnalis</i>	+			
04685	<i>Placobdella ornata</i>	+			
04935	<i>Erpobdella punctata punctata</i>	+			
05900	<i>Lirceus sp</i>	+			
06201	<i>Hyalella azteca</i>	+			
11150	<i>Pseudocloeon propinquum</i>	+			
13400	<i>Stenacron sp</i>	+			
13521	<i>Stenonema femoratum</i>	+			
17200	<i>Caenis sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
42700	<i>Belostoma sp</i>	+			
45300	<i>Sigara sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
53800	<i>Hydroptila sp</i>	+			
55300	<i>Ptilostomis sp</i>	+			
59400	<i>Nectopsyche sp</i>	+			
59570	<i>Oecetis nocturna</i>	+			
60900	<i>Peltodytes sp</i>	+			
63300	<i>Hydroporus sp</i>	+			
63900	<i>Laccophilus sp</i>	+			
67800	<i>Tropisternus sp</i>	+			
68130	<i>Helichus sp</i>	+			
68707	<i>Dubiraphia quadrinotata</i>	+			
68708	<i>Dubiraphia vittata group</i>	+			
69400	<i>Stenelmis sp</i>	+			
77355	<i>Clinotanypus pinguis</i>	+			
77500	<i>Conchapelopia sp</i>	+			
80420	<i>Cricotopus (C.) bicinctus</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
83840	<i>Microtendipes pedellus group</i>	+			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84700	<i>Stenochironomus sp</i>	+			
92613	<i>Cipangopaludina chinensis malleata</i>	+			
94800	<i>Stagnicola sp</i>	+			
95100	<i>Physella sp</i>	+			
96264	<i>Planorbella (Pierosoma) pilsbryi</i>	+			
98200	<i>Pisidium sp</i>	+			
98600	<i>Sphaerium sp</i>	+			

No. Quantitative Taxa: 0 Total Taxa: 40
 No. Qualitative Taxa: 40 ICI:
 Number of Organisms: 0 Qual EPT: 9

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Ai Creek

Collection Date: 08/09/2006 River Code: 04-010 RM: 10.40

Co. Rd. L, in town of Ai

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
03600	<i>Oligochaeta</i>	+			
04935	<i>Erpobdella punctata punctata</i>	+			
05800	<i>Caecidotea sp</i>	+			
05900	<i>Lirceus sp</i>	+			
11120	<i>Baetis flavistriga</i>	+			
11150	<i>Pseudocloeon propinquum</i>	+			
11200	<i>Callibaetis sp</i>	+			
13400	<i>Stenacron sp</i>	+			
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
23700	<i>Anax sp</i>	+			
45300	<i>Sigara sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
53501	<i>Hydroptilidae</i>	+			
60900	<i>Peltodytes sp</i>	+			
63300	<i>Hydroporus sp</i>	+			
63900	<i>Laccophilus sp</i>	+			
64050	<i>Liodessus sp</i>	+			
65800	<i>Berosus sp</i>	+			
68708	<i>Dubiraphia vittata group</i>	+			
69400	<i>Stenelmis sp</i>	+			
74100	<i>Simulium sp</i>	+			
74501	<i>Ceratopogonidae</i>	+			
77120	<i>Ablabesmyia mallochi</i>	+			
77500	<i>Conchapelopia sp</i>	+			
78500	<i>Paramerina fragilis</i>	+			
80420	<i>Cricotopus (C.) bicinctus</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
83840	<i>Microtendipes pedellus group</i>	+			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
85500	<i>Paratanytarsus sp</i>	+			
85625	<i>Rheotanytarsus sp</i>	+			
85800	<i>Tanytarsus sp</i>	+			

No. Quantitative Taxa: 0 Total Taxa: 37

No. Qualitative Taxa: 37 ICI:

Number of Organisms: 0 Qual EPT: 7

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Ai Creek

Collection Date: 08/09/2006 River Code: 04-010 RM: 8.30

Co. Rd. L, dst. town of Ai

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
03600	<i>Oligochaeta</i>	+			
04685	<i>Placobdella ornata</i>	+			
05900	<i>Lirceus sp</i>	+			
06700	<i>Crangonyx sp</i>	+			
08250	<i>Orconectes (Procericambarus) rusticus</i>	+			
11120	<i>Baetis flavistriga</i>	+			
13400	<i>Stenacron sp</i>	+			
13521	<i>Stenonema femoratum</i>	+			
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	+			
23700	<i>Anax sp</i>	+			
27500	<i>Somatochlora sp</i>	+			
45300	<i>Sigara sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
60900	<i>Peltodytes sp</i>	+			
63300	<i>Hydroporus sp</i>	+			
68707	<i>Dubiraphia quadrinotata</i>	+			
68708	<i>Dubiraphia vittata group</i>	+			
69400	<i>Stenelmis sp</i>	+			
72700	<i>Anopheles sp</i>	+			
74100	<i>Simulium sp</i>	+			
74501	<i>Ceratopogonidae</i>	+			
77120	<i>Ablabesmyia mallochi</i>	+			
77500	<i>Conchapelopia sp</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
83840	<i>Microtendipes pedellus group</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84700	<i>Stenochironomus sp</i>	+			
84750	<i>Stictochironomus sp</i>	+			
95100	<i>Physella sp</i>	+			
96900	<i>Ferrissia sp</i>	+			
98600	<i>Sphaerium sp</i>	+			

No. Quantitative Taxa: 0 Total Taxa: 33
 No. Qualitative Taxa: 33 ICI:
 Number of Organisms: 0 Qual EPT: 4

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Ai Creek
Scott Rd.

Collection Date: 08/08/2006 River Code: 04-010 RM: 2.10

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
03600	<i>Oligochaeta</i>	+			
04685	<i>Placobdella ornata</i>	+			
04935	<i>Erpobdella punctata punctata</i>	+			
08250	<i>Orconectes (Procericambarus) rusticus</i>	+			
11120	<i>Baetis flavistriga</i>	+			
11130	<i>Baetis intercalaris</i>	+			
13400	<i>Stenacron sp</i>	+			
21200	<i>Calopteryx sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
23700	<i>Anax sp</i>	+			
23909	<i>Boyeria vinosa</i>	+			
45300	<i>Sigara sp</i>	+			
45400	<i>Trichocorixa sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
60900	<i>Peltodytes sp</i>	+			
74100	<i>Simulium sp</i>	+			
77500	<i>Conchapelopia sp</i>	+			
78401	<i>Natarsia species A (sensu Roback, 1978)</i>	+			
78655	<i>Procladius (Holotanypus) sp</i>	+			
80420	<i>Cricotopus (C.) bicinctus</i>	+			
81825	<i>Rheocricotopus (Psilocricotopus) robacki</i>	+			
82730	<i>Chironomus (C.) decorus group</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
83300	<i>Glyptotendipes (G.) sp</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84700	<i>Stenochironomus sp</i>	+			
85500	<i>Paratanytarsus sp</i>	+			
85625	<i>Rheotanytarsus sp</i>	+			
85821	<i>Tanytarsus glabrescens group sp 7</i>	+			
99100	<i>Pyganodon grandis</i>	+			

No. Quantitative Taxa: 0 Total Taxa: 32
 No. Qualitative Taxa: 32 ICI:
 Number of Organisms: 0 Qual EPT: 4

Ohio EPA/DSW Ecological Assessment Section
 Macroinvertebrate Collection

Site: Ai Creek
 St. Rt. 2

Collection Date: 09/05/2006 River Code: 04-010 RM: 1.60

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01320	<i>Hydra sp</i>	192	85821	<i>Tanytarsus glabrescens group sp 7</i>	740 +
01801	<i>Turbellaria</i>	466 +	85840	<i>Tanytarsus sepp</i>	37 +
03000	<i>Ectoprocta</i>	+	96120	<i>Menetus (Micromenetus) dilatatus</i>	+
03600	<i>Oligochaeta</i>	329	98600	<i>Sphaerium sp</i>	2 +
05900	<i>Lirceus sp</i>	+	99100	<i>Pyganodon grandis</i>	+
11130	<i>Baetis intercalaris</i>	1 +			
11200	<i>Callibaetis sp</i>	+	No. Quantitative Taxa: 28		Total Taxa: 48
13521	<i>Stenonema femoratum</i>	+	No. Qualitative Taxa: 35		ICI: 28
21200	<i>Calopteryx sp</i>	+	Number of Organisms: 5632		Qual EPT: 4
22001	<i>Coenagrionidae</i>	+			
22300	<i>Argia sp</i>	5 +			
45400	<i>Trichocorixa sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	297 +			
60900	<i>Peltodytes sp</i>	+			
63300	<i>Hydroporus sp</i>	+			
68708	<i>Dubiraphia vittata group</i>	+			
69400	<i>Stenelmis sp</i>	32			
72700	<i>Anopheles sp</i>	+			
74100	<i>Simulium sp</i>	+			
74501	<i>Ceratopogonidae</i>	+			
77500	<i>Conchapelopia sp</i>	37 +			
77750	<i>Hayesomyia senata or Thienemannimyia norena</i>	259			
78655	<i>Procladius (Holotanypus) sp</i>	+			
80370	<i>Corynoneura lobata</i>	16			
81231	<i>Nanocladius (N.) crassicornus or N. (N.) "rectinervis"</i>	37			
81240	<i>Nanocladius (N.) distinctus</i>	74			
82141	<i>Thienemanniella xena</i>	+			
82820	<i>Cryptochironomus sp</i>	37			
83040	<i>Dicrotendipes neomodestus</i>	296			
83051	<i>Dicrotendipes simpsoni</i>	111			
83300	<i>Glyptotendipes (G.) sp</i>	518 +			
84020	<i>Parachironomus carinatus</i>	37			
84116	<i>Paracladopelma nereis</i>	+			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	37 +			
84315	<i>Phaenopsectra flavipes</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	370 +			
84470	<i>Polypedilum (P.) illinoense</i>	111 +			
84540	<i>Polypedilum (Tripodura) scalaenum group</i>	148 +			
84800	<i>Tribelos jucundum</i>	148			
85500	<i>Paratanytarsus sp</i>	1184 +			
85615	<i>Rheotanytarsus pellucidus</i>	+			
85625	<i>Rheotanytarsus sp</i>	37			
85800	<i>Tanytarsus sp</i>	74 +			

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Blystone Ditch
Monclova Rd.

Collection Date: 08/08/2006 River Code: 04-081 RM: 0.60

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
01801	<i>Turbellaria</i>	+			
03600	<i>Oligochaeta</i>	+			
05900	<i>Lirceus sp</i>	+			
06700	<i>Crangonyx sp</i>	+			
08250	<i>Orconectes (Procericambarus) rusticus</i>	+			
13400	<i>Stenacron sp</i>	+			
17200	<i>Caenis sp</i>	+			
21200	<i>Calopteryx sp</i>	+			
22001	<i>Coenagrionidae</i>	+			
23700	<i>Anax sp</i>	+			
27500	<i>Somatochlora sp</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
52530	<i>Hydropsyche depravata group</i>	+			
59310	<i>Mystacides sepulchralis</i>	+			
60900	<i>Peltodytes sp</i>	+			
63300	<i>Hydroporus sp</i>	+			
68707	<i>Dubiraphia quadrinotata</i>	+			
77500	<i>Conchapelopia sp</i>	+			
77750	<i>Hayesomyia senata or Thienemannimyia norena</i>	+			
78401	<i>Natarsia species A (sensu Roback, 1978)</i>	+			
82141	<i>Thienemanniella xena</i>	+			
82820	<i>Cryptochironomus sp</i>	+			
83051	<i>Dicrotendipes simpsoni</i>	+			
83840	<i>Microtendipes pedellus group</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84700	<i>Stenochironomus sp</i>	+			
84750	<i>Stictochironomus sp</i>	+			
85500	<i>Paratanytarsus sp</i>	+			
85625	<i>Rheotanytarsus sp</i>	+			
98200	<i>Pisidium sp</i>	+			

No. Quantitative Taxa: 0 Total Taxa: 31
 No. Qualitative Taxa: 31 ICI:
 Number of Organisms: 0 Qual EPT: 5

**Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection**

Site: Fewless Creek
Fulto Co. Rd. 4

Collection Date: 08/09/2006 River Code: 04-097 RM: 1.80

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
03360	<i>Plumatella sp</i>	+			
04685	<i>Placobdella ornata</i>	+			
04935	<i>Erpobdella punctata punctata</i>	+			
05900	<i>Lirceus sp</i>	+			
08220	<i>Orconectes (Gremicambarus) immunis</i>	+			
22001	<i>Coenagrionidae</i>	+			
23700	<i>Anax sp</i>	+			
44501	<i>Corixidae</i>	+			
52200	<i>Cheumatopsyche sp</i>	+			
63300	<i>Hydroporus sp</i>	+			
69400	<i>Stenelmis sp</i>	+			
74100	<i>Simulium sp</i>	+			
77120	<i>Ablabesmyia mallochi</i>	+			
77500	<i>Conchapelopia sp</i>	+			
78140	<i>Labrundinia pilosella</i>	+			
84210	<i>Paratendipes albimanus or P. duplicatus</i>	+			
84450	<i>Polypedilum (Uresipedilum) flavum</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
84700	<i>Stenochironomus sp</i>	+			
85500	<i>Paratanytarsus sp</i>	+			
85821	<i>Tanytarsus glabrescens group sp 7</i>	+			
85840	<i>Tanytarsus sepp</i>	+			
98600	<i>Sphaerium sp</i>	+			

No. Quantitative Taxa: 0	Total Taxa: 23
No. Qualitative Taxa: 23	ICI:
Number of Organisms: 0	Qual EPT: 1

Ohio EPA/DSW Ecological Assessment Section
Macroinvertebrate Collection

Site: Heilman Ditch

Collection Date: 08/08/2006 River Code: 04-098 RM: 3.00

Taxa Code	Taxa	Quant/Qual	Taxa Code	Taxa	Quant/Qual
03600	<i>Oligochaeta</i>	+			
04685	<i>Placobdella ornata</i>	+			
72900	<i>Culex sp</i>	+			
80430	<i>Cricotopus (C.) tremulus group</i>	+			
80510	<i>Cricotopus (Isocladius) sylvestris group</i>	+			
82770	<i>Chironomus (C.) riparius group</i>	+			
84470	<i>Polypedilum (P.) illinoense</i>	+			
95100	<i>Physella sp</i>	+			

No. Quantitative Taxa: 0	Total Taxa: 8
No. Qualitative Taxa: 8	ICI:
Number of Organisms: 0	Qual EPT: 0

River Mile	Drainage Area (sq mi)	Number of				Percent:					Qual. EPT	Eco-region	ICI
		Total Taxa	Mayfly Taxa	Caddisfly Taxa	Dipteran Taxa	Mayflies	Caddisflies	Tany-tarsini	Other Dipt/NI	Tolerant Organisms			
Swan Creek (04-003)													
Year: 2006													
32.90	25.7	41(6)	3(2)	1(2)	24(6)	4.6(2)	2.3(2)	47.2(6)	45.1(4)	8.4(4)	4(2)	1	36
31.00	28.2	29(4)	1(0)	1(2)	16(4)	0.4(2)	1.6(2)	67.6(6)	27.9(6)	6.7(6)	3(0)	1	32
24.60	89.0	35(4)	1(0)	1(2)	21(6)	6.4(2)	1.7(2)	20.9(4)	67.5(0)	26.3(0)	5(2)	1	22
21.70	140.0	25(4)	2(0)	1(2)	14(4)	30.0(4)	46.2(6)	5.7(2)	16.1(6)	0.3(6)	7(2)	1	36
18.50	146.0	36(4)	7(4)	2(2)	17(4)	42.1(6)	12.0(4)	9.3(2)	31.0(4)	2.8(6)	9(2)	1	38
15.30	160.0	25(4)	2(0)	3(4)	12(4)	30.4(4)	28.3(6)	9.5(2)	29.4(4)	1.8(6)	12(4)	1	38
10.90	192.0	24(2)	4(2)	1(2)	12(4)	35.4(6)	12.0(4)	23.9(4)	27.6(4)	1.2(6)	6(2)	1	36
4.40	200.0	30(4)	1(0)	1(2)	12(4)	0.0(2)	0.1(2)	2.7(2)	96.8(0)	45.3(0)	3(0)	1	16
4.10	200.0	33(4)	2(0)	2(2)	19(6)	0.6(2)	13.6(4)	13.9(2)	70.7(0)	16.0(0)	6(2)	1	22
Wolf Creek (04-004)													
Year: 2006													
0.50	26.1	35(4)	3(2)	2(4)	15(4)	11.2(2)	15.6(6)	14.7(4)	56.7(2)	8.0(4)	5(2)	1	34
Blue Creek (04-006)													
Year: 2006													
5.50	27.0	32(4)	5(4)	3(6)	16(4)	19.2(4)	4.1(4)	45.2(6)	30.5(4)	1.5(6)	9(4)	1	46
0.70	44.5	34(4)	4(2)	1(2)	18(4)	7.3(2)	4.4(2)	32.5(6)	53.1(2)	9.3(4)	6(2)	1	30
Ai Creek (04-010)													
Year: 2006													
1.60	49.3	28(4)	1(0)	1(2)	20(6)	0.0(2)	5.3(2)	36.8(6)	57.3(2)	11.1(4)	4(0)	1	28

Appendix E

Swan Creek Water Chemistry Data 2006

Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	D.O.	Saturation	P400	P10	field	Conductivity	P1002	P1027	P916	P1034
				mg/L	%	S.U.	C	umhos/cm	umhos/cm	ug/L	ug/L	mg/L	ug/L
HUC 04100009 070													
<u>Ai Creek</u>													
Ai Creek at CR L (in town of Ai) (P11K14) - RM 10.44													
6/12/2006	1051	10000 L		7.91	79.4	7.86	15.43	677.6	553.7	2.0 K UJ	0.20 K	84	30 K
6/19/2006	0805	10000 L											
6/26/2006	1048	2000		11.53	124.0	7.95	18.77	669.6	589.9	2.0 K	0.20 K	96	30 K
7/5/2006	0850	1800											
7/10/2006	0946	5000		6.28	69.8	7.96	20.39	720.2	656.8	2.0 K	0.20 K	102	30 K
7/24/2006	1000	6400		5.21	56.3	7.90	19.04	662.0	586.6	2.0 K	0.20 K	93	30 K
8/7/2006	1047	24000		5.91	68.5	7.92	22.60	704.7	672.4	2.0 K	0.20 K	102	30 K
8/21/2006	0958	7800		7.88	84.3	8.02	18.59	603.5	529.6	4.4	0.20 K	70	30 K
Ai Creek at CR L (east of town of Ai) (P11K15) - RM 8.29													
6/12/2006	1036	1200		9.06	92.1	8.03	16.12	597.6	496.2	2.0 K UJ	0.20 K	78	30 K
6/19/2006	0809	3000											
6/26/2006	1040	4000		10.95	117.9	7.97	18.87	629.4	555.7	2.0 K	0.20 K	91	30 K
7/5/2006	0853	2200											
7/10/2006	0936	1400		7.03	78.9	8.09	20.94	648.2	597.9	2.1	0.20 K	92	30 K
7/24/2006	0950	1200		5.45	60.1	8.04	19.98	621.4	561.8	2.0 K	0.20 K	89	30 K
8/7/2006	1039	2100		6.37	74.3	8.05	22.88	662.9	636.1	2.6	0.20 K	90	30 K
8/21/2006	0948	1200		7.98	85.9	7.98	18.83	694.4	612.6	3.3	0.20 K	79	30 K
Ai Creek at Swanton WWTP (P11K16) - RM 3.50													
6/12/2006	1007	2400		8.84	91.0	7.52	16.56	1069.5	897.1	2.0 UJ	0.20 K	89	30 K
6/26/2006	0941	54		10.03	112.0	7.79	20.62	870.6	797.8	3.2	0.20 K	80	30 K
7/10/2006	0918	6		7.21	80.0	7.79	20.24	1016.6	924.2	2.0 K	0.20 K	84	30 K
7/24/2006	0931	1400		5.35	59.7	7.82	20.60	1027.6	941.3	2.0 K	0.20 K	93	30 K
8/7/2006	1013	480		6.39	75.6	7.83	23.64	938.6	914.3	2.0 K	0.20 K	85	30 K
8/21/2006	0929	46		9.07	100.8	7.75	20.38	958.3	873.6	2.4	0.20 K	77	30 K

Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	TIME	E.coli	Fecal Coliform	D.O.	Saturation	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Q1002	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	D.O. P299 mg/L	P301 %	P400 S.U.	P10 C	field P94 umhos/cm	Conductivity P402 umhos/cm	P1002 ug/L		P1027 ug/L	P916 mg/L	P1034 ug/L
Ai Creek at Scott Rd (P11K17) - RM 2.10														
6/12/2006	0941	900		7.91	80.6	7.79	16.18	872.7	725.6	2.2	J	0.20 K	94	30 K
6/19/2006	0848	8600												
6/26/2006	0924	2200		10.23	111.5	8.01	19.44	687.9	614.8	2.0		0.20 K	90	30 K
7/5/2006	0929	6300												
7/10/2006	0858	3500		6.54	73.5	7.96	20.96	789.7	728.7	2.0 K		0.20 K	92	30 K
7/10/2006	0858	3000		6.54	73.5	7.96	20.96	789.7	728.7	2.0 K		0.20 K	94	30 K
7/24/2006	0908	1200		5.25	58.9	7.91	20.85	744.4	685.4	2.3		0.20 K	87	30 K
7/24/2006	0908	1000		5.25	58.9	7.91	20.85	744.4	685.4	2.3		0.20 K	88	30 K
8/7/2006	0954	1500		6.18	72.5	7.87	23.19	876.5	846.1	2.4		0.20 K	94	30 K
8/7/2006	0954	1800		6.18	72.5	7.87	23.19	876.5	846.1	2.1		0.20 K	93	30 K
8/21/2006	0905	670		6.58	70.4	7.73	18.52	935.8	820.0	2.7		0.20 K	81	30 K
8/21/2006	0905	610		6.58	70.4	7.73	18.52	935.8	820.0	2.8		0.20 K	83	30 K
Ai Creek at SR 2 (P11W15) - RM 1.66														
6/12/2006	0924	830		7.98	79.7	7.83	15.26	903.0	735.0	3.7	J	0.20 K	94	30 K
6/12/2006	0924	790		7.98	79.7	7.83	15.26	903.0	735.0	2.0 K	UJ	0.20 K	96	30 K
6/19/2006	0844	7400												
6/26/2006	0907	1400		9.11	100.3	7.80	19.98	656.4	593.5	3.1		0.20 K	84	30 K
7/5/2006	0933	5000												
7/10/2006	0848	1200		6.53	73.4	7.98	20.94	844.7	779.3	2.6		0.20 K	101	30 K
7/24/2006	0855	540		5.17	57.7	7.94	20.58	756.1	692.3	2.0		0.20 K	92	30 K
8/7/2006	0931	1400		5.69	65.8	7.88	22.45	882.9	840.0	3.0		0.20 K	93	30 K
8/21/2006	0853	530		7.00	74.5	7.77	18.22	970.8	845.1	4.4		0.20 K	83	30 K
Fewless Creek														
Fewless Ck at Fulton CR 4 (UTAH) (P11K08) - RM 1.80														
6/12/2006	1146	1200		9.89	106.1	8.00	18.69	780.9	686.9	2.0 K	UJ	0.20 K	91	30 K
6/19/2006	0827	10000 L												
6/26/2006	1122	5500		11.44	124.1	7.97	19.19	837.0	744.1	2.2		0.20 K	108	30 K
7/5/2006	0825	12000												
7/10/2006	1017	24000		6.04	67.5	7.82	20.72	900.8	827.2	4.7		0.20 K	107	30 K
7/24/2006	1032	2400		6.09	67.6	7.99	20.30	858.0	780.9	2.5		0.20 K	113	30 K
8/7/2006	1119	2200		7.27	86.4	8.05	23.90	851.6	833.6	2.0		0.20 K	110	30 K
8/21/2006	1032	1200		9.15	97.9	7.93	18.55	720.9	632.1	6.3		0.20 K	86	30 K

Swan Ck Survey Data from 2006

Note: P column is result value.

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Q1002	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	P299 mg/L	Saturation P301 %	P400 S.U.	P10 C	field P94 umhos/cm	Conductivity P402 umhos/cm	P1002 ug/L		P1027 ug/L	P916 mg/L	P1034 ug/L
<u>Swan Creek</u>														
Swan Creek at Fulton CR 6-1 (P11K01) - RM 40.68														
6/12/2006	1110	1900		12.78	131.7	8.38	16.71	628.5	529.0	2.0 K	UJ	0.20 K	87	30 K
6/19/2006	0757	7000												
6/19/2006	0757	7600												
6/26/2006	1101	1600		12.34	133.2	8.04	19.00	678.0	600.3	2.0 K		0.20 K	96	30 K
6/26/2006	1101	730		12.34	133.2	8.04	19.00	678.0	600.3	2.0 K		0.20 K	92	30 K
7/5/2006	0842	1400												
7/10/2006	1000	4400		7.89	88.1	8.19	20.66	646.6	593.1	2.0 K		0.20 K	88	30 K
7/24/2006	1015	1000		6.06	65.9	8.09	19.33	645.9	576.0	2.2		0.20 K	88	30 K
8/7/2006	1101	1800		7.53	88.9	8.18	23.63	637.2	620.5	2.0 K		0.20 K	80	30 K
8/21/2006	1016	4600		9.86	103.5	8.08	17.57	679.2	582.8	3.2		0.20 K	69	30 K
Swan Creek at Fulton CR 3 (P11K02) - RM 34.41														
6/12/2006	1131	700		9.07	93.4	8.01	16.68	665.0	559.4	2.0 K	UJ	0.20 K	80	30 K
6/19/2006	0821	1000												
6/26/2006	1134	1200		11.05	119.4	8.02	19.01	696.8	617.1	2.0 K		0.20 K	94	30 K
7/5/2006	0831	3400												
7/10/2006	1028	2600		6.64	75.5	8.00	21.63	685.7	641.6	2.0 K		0.20 K	87	30 K
7/24/2006	1044	1600		5.15	56.7	8.06	20.02	701.0	634.3	2.1		0.20 K	90	30 K
8/7/2006	1134	1400		6.26	73.6	8.01	23.31	733.9	710.3	2.0 K		0.20 K	90	30 K
8/21/2006	1049	180		8.64	94.3	8.01	19.52	800.8	717.0	3.6		0.20 K	84	30 K
Swan Creek at TR 2 (P11K03) - RM 32.82														
6/13/2006	1238	490		9.20	94.7	8.01	16.64	646.7	543.5	2.1		0.20 K	82	30 K
6/19/2006	0902	890												
6/27/2006	1134	1800		8.71	96.0	7.93	19.98	682.3	616.9	2.3		0.20 K	92	30 K
7/5/2006	0909	4600												
7/11/2006	1101	630		10.29	116.4	7.93	21.32	700.0	650.9	3.3		0.20 K	87	30 K
7/25/2006	1129	450		8.32	94.6	8.01	21.60	703.6	658.0	3.0		0.20 K	91	30 K
8/8/2006	1147	670		7.94	89.6	7.96	21.20	704.5	653.4	2.4		0.20 K	88	30 K
8/22/2006	1103	610		7.57	81.1	8.09	18.62	694.5	609.9	4.7		0.20 K	88	30 K

Swan Ck Survey Data from 2006

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DATE	TIME	E.coli	Fecal Coliform	D.O.		pH - Field	Temperature	Conductivity, field	Specific Conductivity	Arsenic	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	D.O. Saturation	P299								
				mg/L	%	S.U.	C	umhos/cm	umhos/cm	ug/L	ug/L	mg/L	ug/L
Swan Creek at SR 64 (drive into facility) (P11K04) - RM 30.90													
6/13/2006	1208	350		7.72	79.1	7.84	16.41	672.5	562.2	2.3	0.20 K	83	30 K
6/19/2006	0857	470											
6/27/2006	1110	1000		8.16	90.3	7.95	20.22	673.0	611.6	2.1	0.20 K	91	30 K
7/5/2006	0919	4000											
7/11/2006	1039	730		9.11	103.6	7.87	21.63	681.9	638.0	2.5	0.20 K	83	30 K
7/25/2006	1106	810		7.82	88.8	8.01	21.53	689.3	643.6	2.6	0.20 K	91	30 K
8/8/2006	1128	680		6.74	76.9	7.90	21.74	701.6	657.9	2.0 K	0.20 K	88	30 K
8/22/2006	1044	150		6.75	73.8	7.97	19.65	635.9	570.9	3.6	0.20 K	77	30 K
Swan Creek at SR 295 (P11P11) - RM 25.99													
6/13/2006	1145	310		8.38	87.3	7.95	17.25	733.5	624.9	2.0 K	0.20 K	84	30 K
6/19/2006	0941	1200											
Swan Creek at Spencer Rd (P11K21) - RM 24.70													
6/13/2006	1132	380		8.00	83.3	7.90	17.21	727.3	619.1	2.2	0.20 K	83	30 K
6/19/2006	0946	710											
6/27/2006	1050	790		8.27	92.5	7.92	20.74	677.2	622.2	2.6	0.20 K	90	30 K
7/5/2006	0944	6100											
7/11/2006	1007	120		9.32	107.4	7.87	22.27	751.4	712.2	4.1	0.20 K	90	30 K
7/25/2006	1044	160		7.65	88.1	7.97	22.28	717.4	680.2	3.0	0.20 K	89	30 K
7/25/2006	1044	150		7.65	88.1	7.97	22.28	717.4	680.2	2.0	0.20 K	90	30 K
8/8/2006	1106	250		6.77	78.6	7.94	22.68	758.7	725.1	2.3	0.20 K	89	30 K
8/22/2006	1023	700		6.20	68.5	7.99	20.19	677.2	615.0	3.1	0.20 K	72	30 K
1/22/2007	1113									2.0 K	0.20 K	83	30 K

Swan Ck Survey Data from 2006

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DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium	
		P31648	P31616	P299	Saturation			field	Conductivity					
		#/100ml	#/100ml	mg/L	P301	P400	P10	P94	P402	P1002	Q1002	P1027	P916	P1034
					%	S.U.	C	umhos/cm	umhos/cm	ug/L		ug/L	mg/L	ug/L

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Blue Creek

Blue Creek at Fulton CR 3 (P11K11) - RM 11.57

6/14/2006	0910	760		5.69	59.8	7.61	17.70	583.6	502.3	5.0		0.20 K	85	30 K
6/19/2006	0915	420												
6/28/2006	0859	480		5.23	56.5	7.72	19.01	596.4	528.2	3.5		0.20 K	89	30 K
7/5/2006	0814	590												
7/12/2006	0919	1100		4.59	51.3	7.60	20.74	550.1	505.3	5.1		0.20 K	77	30 K
7/26/2006	0912	330		5.40	60.1	7.77	20.50	610.7	558.2	5.4		0.20 K	84	30 K
8/9/2006	0914	1000		9.37	100.8	7.93	18.81	616.4	543.5	7.7		0.20 K	84	30 K
8/23/2006	0936	490		7.12	76.6	8.04	18.81	626.9	552.7	10.8		0.20 K	85	30 K

Blue Creek at Manore Rd, 0.3 mi NE of Neopolis (P11P39) - RM 7.81

6/14/2006	0919	1300		8.32	89.4	7.86	18.72	562.6	495.1	4.0		0.20 K	76	30 K
6/19/2006	0921	6400												
6/19/2006	0921	6600												
6/28/2006	0915	550		6.99	76.9	7.83	19.93	590.7	533.4	2.9		0.20 K	82	30 K
6/28/2006	0915	530		6.99	76.9	7.83	19.93	590.7	533.4	2.8		0.20 K	83	30 K
7/5/2006	0804	1400												
7/12/2006	0858	1600		6.07	69.0	7.75	21.67	555.3	519.9	4.3		0.20 K	70	30 K
7/12/2006	0858	2000		6.07	69.0	7.75	21.67	555.3	519.9	4.6		0.20 K	72	30 K
7/26/2006	0859	650		5.94	67.8	7.91	21.84	600.1	563.9	4.8		0.20 K	78	30 K
8/9/2006	0901	860		10.31	114.7	8.07	20.50	613.9	561.1	5.9		0.20 K	82	30 K
8/23/2006	0921	2800		6.93	75.5	8.11	19.41	623.8	557.2	8.1		0.20 K	86	30 K

Swan Ck Survey Data from 2006

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DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	D.O. P299 mg/L	Saturation P301 %	P400 S.U.	P10 C	field P94 umhos/cm	Conductivity P402 umhos/cm				
Blue Creek at SR 295 (P11K12) - RM 5.57													
6/14/2006	0943	1200		8.70	92.9	7.94	18.47	606.4	530.7	3.3	0.20 K	81	30 K
6/19/2006	0934	1300											
6/28/2006	0944	800		7.37	81.7	7.88	20.32	614.6	559.7	3.0	0.20 K	84	30 K
7/5/2006	0757	1800											
7/12/2006	0847	5000		6.71	76.5	7.81	21.77	578.6	542.9	4.6	0.20 K	70	30 K
7/26/2006	0845	840		6.57	75.0	8.02	21.83	620.8	583.2	3.8	0.20 K	80	30 K
7/26/2006	0845	1200		6.57	75.0	8.02	21.83	620.8	583.2	3.8	0.20 K	80	30 K
8/9/2006	0847	1400		10.40	114.8	8.08	20.11	633.5	574.3	6.4	0.20 K	81	30 K
8/9/2006	0847	1300		10.40	114.8	8.08	20.11	633.5	574.3	5.1	0.20 K	83	30 K
8/23/2006	0907	830		6.91	75.8	8.12	19.78	635.1	571.8	5.9	0.20 K	83	30 K
8/23/2006	0907	740		6.91	75.8	8.12	19.78	635.1	571.8	6.4	0.20 K	86	30 K
Blue Creek at Finzel Rd (P11P13) - RM 0.73													
6/14/2006	0958	420		9.08	97.0	8.08	18.42	693.6	606.4	2.0	0.20 K	86	30 K
6/14/2006	0958	370		9.08	97.0	8.08	18.42	693.6	606.4	2.3	0.20 K	87	30 K
6/19/2006	0954	10000 L											
6/28/2006	1003	650		7.63	84.3	7.92	20.10	711.6	645.1	2.7	0.20 K	100	30 K
7/5/2006	0952	2900											
7/5/2006	0952	2200											
7/12/2006	0946	4400		6.96	79.6	7.92	21.90	639.7	601.8	3.2	0.20 K	76	30 K
7/26/2006	0940	500		6.02	69.3	7.98	22.31	716.1	679.3	2.3	0.20 K	87	30 K
8/9/2006	0945	460		9.28	103.7	8.04	20.74	713.0	655.0	4.8	0.20 K	90	30 K
8/23/2006	1004	720		6.30	70.1	8.05	20.49	742.1	678.1	4.6	0.20 K	94	30 K
<u>Blystone Ditch</u>													
Blystone Ditch at Monclova Rd (P11A03) - RM 0.54													
6/14/2006	1019	2600		9.34	95.7	7.87	16.41	921.9	770.7	2.0 K	0.20 K	109	30 K
6/19/2006	1011	10000 L											
6/28/2006	1032	1200		7.89	86.6	7.98	19.81	845.3	761.5	2.0 K	0.20 K	118	30 K
7/5/2006	1013	1500											
7/12/2006	1004	3000		7.56	85.0	7.85	21.01	703.0	649.4	2.5	0.20 K	81	30 K
7/26/2006	0956	10000 L		6.15	68.5	7.81	20.54	917.7	839.6	2.3	0.20 K	114	30 K
8/9/2006	1010	990		9.76	105.8	7.88	19.12	947.5	841.1	3.7	0.20 K	113	30 K
8/23/2006	1020	440		5.74	62.1	7.73	19.03	1006.1	891.3	2.7	0.20 K	126	30 K

Swan Ck Survey Data from 2006

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DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	P299 mg/L	Saturation P301 %	P400 S.U.	P10 C	field P94 umhos/cm	Conductivity P402 umhos/cm	P1002 ug/L	Q1002 P1027 ug/L	P916 mg/L	P1034 ug/L
<u>Cairl Ditch</u>													
Cairl Ditch at Pilliad Rd (P11K10) - RM 1.32													
6/15/2006	0857	1400		7.59	77.3	7.87	16.18	812.4	675.6	2.0 K	0.20 K	96	30 K
6/20/2006	1010	730											
6/29/2006	0849	700		7.95	84.1	7.87	17.97	796.3	689.4	2.0 K	0.20 K	95	30 K
7/6/2006	0901	1300											
7/13/2006	0931	640		9.98	112.7	7.73	21.28	474.3	440.6	2.0 K	0.20 K	54	30 K
7/27/2006	0854	780		9.31	106.4	8.04	21.84	800.0	751.7	2.9	0.20 K	90	30 K
8/10/2006	0912	1200		7.31	82.2	8.09	21.04	779.1	720.2	2.6	0.20 K	90	30 K
8/24/2006	0916	1600	1600	7.40	80.7	8.05	19.48	741.0	662.8	3.1	0.20 K	85	30 K
<u>Harris Ditch</u>													
Harris Ditch at SR 295 (P11K13) - RM 1.55													
6/14/2006	0934	550		8.40	88.7	7.76	17.87	763.2	659.3	2.0 K	0.20 K	102	30 K
6/19/2006	0930	690											
6/28/2006	0934	530		7.14	77.7	7.67	19.34	732.7	653.6	2.0 K	0.20 K	103	30 K
7/5/2006	0752	1600											
7/12/2006	0835	1400		6.23	70.9	7.84	21.66	747.6	700.0	2.3	0.20 K	95	30 K
7/26/2006	0833	1200		6.35	71.4	7.91	21.01	798.0	737.1	3.4	0.20 K	104	30 K
8/9/2006	0835	1800		10.23	110.6	8.08	19.03	841.6	745.6	7.6	0.20 K	106	30 K
8/23/2006	0854	2900		7.04	75.5	8.15	18.61	944.4	829.2	6.4	0.20 K	110	30 K
<u>Heilman Ditch</u>													
Heilman Ditch at Conant Rd, SR 20 (P11K20) - RM 1.76													
6/15/2006	0948	170		7.87	81.0	7.88	16.43	2298.0	1921.7	2.0 K	0.20 K	301	30 K
6/20/2006	1043	10000 L											
6/29/2006	0819	650		7.95	84.4	7.65	17.89	2264.2	1956.7	2.0 K	0.20 K	319	30 K
7/6/2006	0833	2200											
7/13/2006	0858	12000		11.49	124.9	7.66	19.16	1801.7	1600.7	2.4	0.20 K	238	30 K
7/27/2006	0809	8200		9.87	109.0	7.86	19.86	2322.4	2094.3	2.0 K	0.20 K	286	30 K
8/10/2006	0842	3600		7.36	79.0	7.76	18.44	2212.5	1935.1	2.0 K	0.40 K	301	30 K
8/24/2006	0842	8300	8300	7.26	80.0	7.90	19.86	1496.3	1349.3	2.5	0.20 K	109	30 K

Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium	
		P31648	P31616	D.O.	Saturation	P400	P10	field	Conductivity					
		#/100ml	#/100ml	mg/L	P301	S.U.	C	P94	P402	P1002	Q1002	P1027	P916	P1034
					%			umhos/cm	umhos/cm	ug/L		ug/L	mg/L	ug/L
Wolf Creek														
Wolf Creek at Albon Rd (P11K09) - RM 4.06														
6/15/2006	0842	2600		8.94	90.1	8.04	15.62	1045.3	858.0	2.2		0.20 K	91	30 K
6/20/2006	1017	650												
6/20/2006	1017	700												
6/29/2006	0838	1400		8.69	90.9	7.91	17.41	979.8	837.7	2.6		0.20 K	95	30 K
7/6/2006	0858	1200												
7/13/2006	0919	26		10.27	114.5	7.83	20.62	499.1	457.3	3.3		0.20 K	49	30 K
7/27/2006	0829	1200		10.26	116.1	8.11	21.29	977.4	908.2	3.0		0.20 K	79	30 K
8/10/2006	0901	770		8.12	90.3	8.22	20.42	1004.3	916.5	2.1		0.20 K	86	30 K
8/24/2006	0904	5500	5500	7.87	85.2	8.10	19.03	1091.9	967.4	4.1		0.20 K	84	30 K
Wolf Creek at Perrysburg-Holland Rd (P11S66) - RM 1.96														
6/15/2006	0909	2300		8.58	88.1	7.99	16.51	926.8	776.5	2.2		0.20 K	93	30 K
6/20/2006	1004	1200												
6/29/2006	0900	880		8.26	89.7	7.96	19.27	737.6	656.9	3.0		0.20 K	81	30 K
7/6/2006	0909	1000												
7/13/2006	0943	450		10.54	119.5	7.79	21.48	417.3	389.2	2.6		0.20 K	46	30 K
7/27/2006	0841	800		9.97	114.7	8.09	22.18	805.6	762.2	3.1		0.20 K	79	30 K
8/10/2006	0922	790		7.64	87.2	8.17	21.79	811.8	762.0	3.1		0.20 K	80	30 K
8/24/2006	0928	5000	5000	7.75	86.0	8.08	20.31	710.8	647.1	2.7		0.20 K	67	30 K
Wolf Creek at Holland-Sylvania Rd (P11P18) - RM 0.48														
6/15/2006	0924	1500		8.43	87.2	8.02	16.82	965.6	814.8	2.0 K		0.20 K	99	30 K
6/15/2006	0924	1700		8.43	87.2	8.02	16.82	965.6	814.8	2.0 K		0.20 K	94	30 K
6/20/2006	0955	1000												
6/29/2006	0913	610		8.15	88.5	7.98	19.25	766.2	682.1	2.3		0.20 K	83	30 K
7/6/2006	0920	1000												
7/13/2006	0956	2 K		10.43	118.4	7.73	21.54	436.3	407.5	2.8		0.20 K	48	30 K
7/27/2006	0907	910		9.71	111.9	8.09	22.26	833.4	789.7	3.4		0.20 K	79	30 K
8/10/2006	0940	2400		7.31	83.2	7.97	21.57	1220.4	1140.4	3.4		0.20 K	108	30 K
8/10/2006	0940	1400		7.31	83.2	7.97	21.57	1220.4	1140.4	3.8		0.20 K	109	30 K
8/24/2006	0948	10000 L	10000 L	7.70	85.0	8.02	20.04	1028.1	930.7	3.1		0.20 K	85	30 K
8/24/2006	0948	10000 L	10000 L	7.70	85.0	8.02	20.04	1028.1	930.7	3.2		0.20 K	86	30 K

Swan Ck Survey Data from 2006

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DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	D.O. P299 mg/L	Saturation P301 %	P400 S.U.	P10 C	field P94 umhos/cm	Conductivity P402 umhos/cm	P1002 ug/L	Q1002 P1027 ug/L	P916 mg/L	P1034 ug/L
Swan Creek													
Swan Creek at Stitt Rd (P11S11) - RM 21.64													
6/13/2006	1116	410		8.49	88.7	8.00	17.41	732.6	626.4	2.0 K	0.20 K	86	30 K
6/19/2006	0959	10000 L											
6/27/2006	1035	13000		8.69	96.9	7.96	20.64	685.8	628.7	2.4	0.20 K	89	30 K
7/5/2006	1001	4700											
7/11/2006	0950	530		10.19	116.9	7.93	22.03	748.5	706.1	2.5	0.20 K	90	30 K
7/25/2006	1027	230		8.49	98.2	8.05	22.47	724.0	689.0	3.3	0.20 K	91	30 K
8/8/2006	1033	340		7.17	83.1	7.96	22.56	749.1	714.2	2.3	0.20 K	92	30 K
8/22/2006	1010	1000		6.79	74.9	8.01	20.07	781.2	707.6	3.5	0.20 K	82	30 K
Swan Creek at Monclova Rd nr jct w/ Albon W of Monclova (P11K05) - RM 18.46													
6/13/2006	1059	210		8.79		8.03	17.08	747.4	634.3	2.0 K	0.20 K	90	30 K
6/19/2006	1006	310											
6/27/2006	1019	530		8.68	97.5	7.92	20.93	678.4	625.6	2.1	0.20 K	92	30 K
6/27/2006	1019	2800		8.68	97.5	7.92	20.93	678.4	625.6	2.5	0.20 K	89	30 K
7/5/2006	1007	5800											
7/11/2006	0933	300		10.57	121.0	7.94	21.96	764.8	720.3	2.8	0.20 K	95	30 K
7/11/2006	0933	340		10.57	121.0	7.94	21.96	764.8	720.3	2.0 K	0.20 K	96	30 K
7/25/2006	1000	100		8.61	98.4	8.01	21.85	737.9	693.5	2.7	0.20 K	92	30 K
8/8/2006	1048	200		7.46	86.4	7.97	22.51	755.8	719.7	2.4	0.20 K	89	30 K
8/22/2006	0955	350		7.21	79.0	8.04	19.67	750.7	674.3	2.5	0.20 K	80	30 K
Swan Creek at Salisbury Rd (P11P09) - RM 15.24													
6/13/2006	1040	210		8.96	92.5	8.04	16.82	767.0	647.2	2.3	0.20 K	89	30 K
6/20/2006	1022	350											
6/27/2006	0956	610		8.95	99.9	7.99	20.66	680.9	624.4	2.1	0.20 K	92	30 K
7/6/2006	0848	1700											
7/11/2006	0916	400		11.16	126.6	8.03	21.48	753.4	702.8	2.7	0.20 K	95	30 K
7/25/2006	0947	210		8.83	100.8	8.02	21.78	756.6	710.1	2.9	0.20 K	95	30 K
8/8/2006	1020	320		7.93	91.2	8.02	22.20	777.9	736.3	2.4	0.20 K	92	30 K
8/22/2006	0941	590		7.20	79.2	8.10	19.88	828.8	747.7	3.0	0.20 K	93	30 K

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DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	P299 mg/L	Saturation P301 %	P400 S.U.	P10 C	field P94 umhos/cm	Conductivity P402 umhos/cm	P1002 ug/L	Q1002 P1027 ug/L	P916 mg/L	P1034 ug/L
Swan Creek at Reynolds Rd, SR 20 (P11P08) - RM 10.84													
6/13/2006	1015	440		8.80	91.6	8.00	17.20	861.6	733.3	2.9	0.20 K	95	30 K
6/20/2006	0948	920											
6/27/2006	0933	420		9.37	103.8	7.97	20.31	701.1	638.3	2.7	0.20 K	86	30 K
7/6/2006	0934	1600											
7/11/2006	0000	330		10.83	124.3	7.98	22.07	831.8	785.3	2.7	0.20 K	94	30 K
7/25/2006	0925	460		8.83	101.9	8.04	22.40	800.9	761.0	3.1	0.20 K	95	30 K
8/8/2006	0950	430		7.91	92.0	8.00	22.73	821.5	785.8	2.1	0.20 K	90	30 K
8/22/2006	0914	650		7.31	80.3	8.06	19.80	875.6	788.7	2.0	0.20 K	90	30 K
1/22/2007	1024									2.0 K	0.20 K	89	30 K
Swan Creek at Arlington Rd (P11K06) - RM 6.00													
6/13/2006	0951	200		8.86	91.6	8.02	16.82	943.0	795.0	2.0 K	0.20 K	99	30 K
6/20/2006	0921	560											
Swan Creek at South Ave (P11P05) - RM 4.31													
6/13/2006	0937	340		8.35	87.1	7.99	17.29	945.1	805.8	2.1	0.20 K	102	30 K
6/20/2006	0910	900											
6/27/2006	0858	520		8.31	92.5	8.01	20.47	752.5	687.5	2.5	0.20 K	91	30 K
7/6/2006	1006	1400											
7/11/2006	0835	230		10.51	120.2	7.96	21.89	894.8	841.7	2.2	0.20 K	99	30 K
7/25/2006	0905	190		8.78	100.6	8.01	21.94	853.3	803.5	2.4	0.20 K	96	30 K
8/8/2006	0922	410		6.99	81.4	7.91	22.80	903.7	865.8	2.0	0.20 K	99	30 K
8/22/2006	0854	310		6.49	72.2	7.99	20.44	955.1	871.8	2.5	0.20 K	96	30 K
Swan Creek at City Park Ave (P11P03) - RM 1.58													
6/13/2006	0923	490		8.44	88.9	8.01	17.76	941.3	811.1	2.0 K	0.20 K	101	30 K
6/20/2006	0902	310											
6/27/2006	0840	910		8.33	92.2	8.01	20.25	744.0	676.4	2.0 K	0.20 K	92	30 K
7/6/2006	1013	2000											
7/11/2006	0822	2400		10.53	121.6	7.99	22.37	923.0	876.6	2.6	0.20 K	104	30 K
7/25/2006	0852	230		8.74	100.8	8.02	22.33	846.3	803.2	2.7	0.20 K	99	30 K
8/8/2006	0904	380		7.69	90.2	7.93	23.18	933.5	901.1	2.0 K	0.20 K	104	30 K
8/22/2006	0840	460		6.81	77.1	8.09	21.29	903.1	839.2	2.0 K	0.20 K	92	30 K

Swan Ck Survey Data from 2006

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DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	P299 mg/L	P301 %	P400 S.U.	P10 C	field P94 umhos/cm	Conductivity P402 umhos/cm	P1002 ug/L	Q1002 P1027 ug/L	P916 mg/L	P1034 ug/L
Swan Creek at OC Bridge (P11K07) - RM 0.19													
6/13/2006	0905	29		9.34	106.5	8.33	21.80	541.0	508.0	2.4	0.20 K	66	30 K
6/13/2006	0905	27		9.34	106.5	8.33	21.80	541.0	508.0	2.6	0.20 K	66	30 K
6/20/2006	0852	110											
6/20/2006	0852	120											
6/27/2006	0819	670		8.07	89.4	7.97	20.30	744.1	677.3	2.2	0.20 K	89	30 K
7/6/2006	1021	1500											
7/6/2006	1021	1500											
7/11/2006	0800	270		10.30	124.2	8.20	24.71	520.0	517.1	2.7	0.20 K	54	30 K
7/25/2006	0834	110		8.95	109.5	8.26	25.57	434.2	438.9	3.3	0.20 K	53	30 K
8/8/2006	0843	210		8.32	102.8	8.27	26.09	521.0	531.8	3.4	0.20 K	59	30 K
8/8/2006	0843	230		8.32	102.8	8.27	26.09	521.0	531.8	3.4	0.20 K	57	30 K
8/22/2006	0827	98		5.14	61.6	8.10	24.38	467.3	461.7	5.1	0.20 K	46	30 K
8/22/2006	0827	120		5.14	61.6	8.10	24.38	467.3	461.7	4.1	0.20 K	46	30 K
HUC 04100009 090													
<u>Delaware Creek</u>													
Delaware Creek at Rohr Dr (P11A07) - RM 0.38													
6/15/2006	1015	610		8.56	86.5	7.94	15.53	2142.0	1755.0	2.4	0.20 K	154	30 K
6/20/2006	0930	2200											
6/29/2006	0941	1400		8.60		8.02	17.47	2038.0	1745.0	2.0 K	0.20 K	155	30 K
7/6/2006	0953	2600											
7/13/2006	1023	7400		11.69	131.3	8.06	20.94	925.0	853.2	2.3	0.20 K	79	30 K
7/27/2006	0933	290		10.40	117.7	8.03	21.18	2039.7	1890.9	2.4	0.20 K	131	30 K
8/10/2006	1025	440		7.49	84.0	8.01	20.65	2201.2	2018.2	2.3	0.20 K	144	30 K
8/24/2006	1019	10000 L	10000 L	7.95	87.7	8.08	20.01	713.9	645.8	3.3	0.20 K	50	30 K

Swan Ck Survey Data from 2006

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DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Q1002	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	D.O.	Saturation	P400	P10	field	Conductivity	P1002		P1027	P916	P1034
				mg/L	%	S.U.	C	umhos/cm	umhos/cm	ug/L		ug/L	mg/L	ug/L
Grassy Creek														
Grassy Creek at Ford Rd (P11A05) - RM 4.85														
6/14/2006	1103	3900		8.72	93.7	7.96	18.69	993.7	874.0	2.0		0.20 K	104	30 K
6/20/2006	1110	1400												
6/28/2006	1128	290		7.23	79.1	7.92	19.58	1020.2	914.6	2.0 K		0.20 K	114	30 K
7/6/2006	0804	3000												
7/12/2006	1050	10000 L		6.89	79.3	7.91	22.24	569.7	539.6	2.1		0.20 K	72	30 K
7/26/2006	1041	550		5.61	66.3	7.95	23.55	892.1	867.5	2.6		0.20 K	89	30 K
8/9/2006	1054	720		8.57	101.3	8.07	23.58	873.3	849.6	3.4		0.20 K	83	30 K
Grassy Creek at Glenwood Rd (P11K18) - RM 0.98														
6/14/2006	1123	2200		8.27	87.7	7.92	18.02	1254.7	1087.4	5.0		0.20 K	115	30 K
6/20/2006	1125	1000												
6/28/2006	1148	1400		7.09	79.2	7.99	20.66	970.9	890.4	5.1		0.20 K	101	30 K
7/6/2006	0752	2300												
7/12/2006	1107	10000 L		7.64	85.3	7.85	20.63	784.2	718.7	3.7		0.20 K	45	30 K
7/26/2006	1057	700		4.88	55.5	7.77	21.56	1300.8	1215.3	4.7		0.20 K	109	30 K
8/9/2006	1108	880		8.33	94.1	7.91	21.20	1145.9	1062.8	5.5		0.20 K	96	30 K
8/23/2006	1058	900		6.04	67.4	8.01	20.61	923.0	845.7	4.3		0.20 K	67	30 K
Grassy Creek Diversion (10.85) at Grand Rapids Rd (P11K19) - RM 0.28														
6/14/2006	1041	680		10.08	110.0	8.16	19.48	826.2	739.0	2.0 K		0.20 K	83	30 K
6/20/2006	1055	750												
6/28/2006	1104	790		8.14	91.7	8.08	21.10	700.6	648.4	3.2		0.20 K	96	30 K
7/6/2006	0819	760												
7/12/2006	1027	1200		7.61	87.4	8.00	22.12	515.7	487.3	2.0 K		0.20 K	54	30 K
7/26/2006	1018	500		6.30	73.7	8.04	23.06	808.8	778.8	2.2		0.20 K	78	30 K
8/9/2006	1031	450		10.04	114.0	8.16	21.50	787.7	735.0	3.5		0.20 K	85	30 K
8/23/2006	1037	360		6.84	76.3	8.14	20.61	978.3	896.3	2.0 K		0.20 K	102	30 K

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DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.	pH - Field	Temperature	Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	P299 mg/L	Saturation P301 %	P400 S.U.	P10 C	field P94 umhos/cm	Conductivity P402 umhos/cm	P1002 ug/L	Q1002 P1027 ug/L	P916 mg/L	P1034 ug/L
HUC 04100010 010													
<u>Otter Creek</u>													
Otter Creek at Oakdale Ave (S03P12) - RM 5.92													
6/15/2006	1125	1200		6.93	73.6	7.95	18.26	1026.0	894.0	41.0	0.20 K	99	30 K
6/20/2006	1200	1400											
6/29/2006	1120	430		7.07	77.6	7.83	19.75	833.0	750.0	19.1	0.20 K	93	30 K
7/6/2006	1054	640											
7/13/2006	1141	2200		10.61	119.2	7.80	20.96	664.5	613.2	10.3	0.20 K	74	30 K
7/27/2006	1053	1600		8.28	94.9	8.00	21.98	1083.9	1021.3	53.5	0.20 K	101	30 K
8/10/2006	1157	650		7.17	81.5	8.11	21.52	1177.3	1099.2	55.5	0.20 K	101	30 K
8/24/2006	1117	10000 L	10000 L	7.08	77.9	7.92	19.88	734.2	662.3	50.0	0.20 K	79	30 K
Otter Creek at Consaul St (S03P08) - RM 2.95													
6/15/2006	1105	1000		5.52	58.3	7.81	17.64	1366.0	1175.0	20.7	0.20 K	122	30 K
6/20/2006	1146	450											
6/29/2006	1057	2500		5.82	63.2	7.76	19.22	981.0	872.0	14.5	0.20 K	102	30 K
7/6/2006	1044	2800											
7/13/2006	1122	6200		9.29	105.8	7.73	21.71	653.2	612.1	7.8	0.20 K	68	30 K
7/27/2006	1036	1400		5.04	58.7	7.75	22.74	1167.7	1117.2	19.3	0.20 K	104	30 K
8/10/2006	1134	890		4.32	49.3	7.77	21.73	1241.7	1164.2	18.9	0.20 K	108	30 K
8/24/2006	1058	10000 L	10000 L	7.13	78.3	8.02	19.85	446.7	402.8	8.8	0.20 K	36	30 K
Otter Creek at Millard Ave (S03P05) - RM 2.13													
6/15/2006	1050	76		8.42	94.9	9.49	21.20	381.0	353.0	4.1	0.20 K	42	30 K
6/20/2006	1142	340											
6/29/2006	1026	550		7.81	88.5	8.63	21.47	565.0	527.0	5.6	0.20 K	55	30 K
6/29/2006	1026	600		7.81	88.5	8.63	21.47	565.0	527.0	4.9	0.20 K	54	30 K
7/6/2006	1038	1600											
7/13/2006	1109	2700		9.95	116.1	8.16	22.99	489.4	470.7	4.9	0.20 K	47	30 K
7/13/2006	1109	3200		9.95	116.1	8.16	22.99	489.4	470.7	5.0	0.20 K	47	30 K
7/27/2006	1024	150		9.09	109.4	9.35	24.64	322.9	320.6	3.1	0.20 K	27	30 K
7/27/2006	1024	160		9.09	109.4	9.35	24.64	322.9	320.6	3.0	0.20 K	28	30 K
8/10/2006	1118	27		6.98	86.1	9.59	25.99	270.0	275.1	3.1	0.20 K	23	30 K
8/24/2006	1048	5600	5600	6.79	79.4	9.42	23.07	221.9	213.7	2.8	0.20 K	23	30 K

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DATE	TIME	E.coli	Fecal Coliform	D.O.	D.O.		Temperature		Conductivity,	Specific	Arsenic	Cadmium	Calcium	Chromium
		P31648 #/100ml	P31616 #/100ml	P299 mg/L	Saturation	pH - Field	P10	P94	P402	field				
					P301 %	P400 S.U.	P10 C		umhos/cm	umhos/cm	P1002 ug/L	Q1002 ug/L	P916 mg/L	P1034 ug/L
Otter Creek adj CSX Rd (S03S25) - RM 0.40														
7/27/2006	1010	4100		8.02	96.6	9.07	24.71		385.2	383.1	4.6		0.20 K	32 30 K
8/10/2006	1102	11		6.63	81.4	9.34	25.77		282.0	286.2	3.9		0.20 K	27 30 K
Storm Sewer to Otter Ck at Oakdale Ave														
6/15/2006	1135	2200		1.52	14.1	7.32	15.99		2058.0	1708.0	25.1		0.20 K	151 30 K

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
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Ai Creek

Ai Creek at CR L (in town of Ai) (P11K14) - RM 10.44

6/12/2006	10 K	421	2.0 K	19	16	0.20 K	40 K	4	2.0 K	29	10 K	288
6/19/2006												
6/26/2006	10 K	214	2.0 K	18	10	0.20 K	40 K	4	2.0 K	9	10 K	314
7/5/2006												
7/10/2006	10 K	457	2.0 K	20	16	0.20 K	40 K	5	2.0 K	21	12	337
7/24/2006	10 K	369	2.0 K	18	19	0.20 K	40 K	6	2.0 K	16	10 K	306
8/7/2006	10 K	580	2.0 K	20	33	0.20 K	40 K	5	2.0 K	17	10 K	337
8/21/2006	106	1160	2.0 K	17	59	0.20 K	40 K	7	2.0 K	29	10 K	245

Ai Creek at CR L (east of town of Ai) (P11K15) - RM 8.29

6/12/2006	10 K	523	2.0 K	18	18	0.20 K	40 K	4	2.0 K	15	10 K	269
6/19/2006												
6/26/2006	10 K	399	2.0 K	17	16	0.20 K	40 K	4	2.0 K	9	10 K	297
7/5/2006												
7/10/2006	10 K	341	2.0 K	18	15	0.20 K	40 K	4	2.0 K	14	10 K	304
7/24/2006	10 K	468	2.0 K	17	19	0.20 K	40 K	5	2.0 K	13	10 K	292
8/7/2006	10 K	544	2.0 K	18	26	0.20 K	40 K	5	2.0 K	16	10 K	299
8/21/2006	10 K	669	2.0 K	18	61	0.20 K	40 K	7	2.0 K	40	10 K	271

Ai Creek at Swanton WWTP (P11K16) - RM 3.50

6/12/2006	20	216	2.0 K	17	47	0.20 K	40 K	11	2.0 K	100	20	292
6/26/2006	10 K	224	2.0 K	16	21	0.20 K	40 K	6	2.0 K	66	10 K	266
7/10/2006	12	126	2.0 K	16	65	0.20 K	40 K	11	2.0 K	90	20	276
7/24/2006	10 K	129	2.0 K	18	33	0.20 K	40 K	8	2.0 K	85	10 K	306
8/7/2006	10 K	111	2.0 K	17	36	0.20 K	40 K	6	2.0 K	69	10 K	282
8/21/2006	10 K	126	2.0 K	14	47	0.20 K	40 K	11	2.0 K	82	16	250

Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
Ai Creek at Scott Rd (P11K17) - RM 2.10												
6/12/2006	10 K	428	2.0 K	20	50	0.20 K	40 K	6	2.0 K	57	10 K	317
6/19/2006												
6/26/2006	10 K	818	2.0 K	17	41	0.20 K	40 K	4	2.0 K	22	10 K	295
7/5/2006												
7/10/2006	10 K	283	2.0 K	18	34	0.20 K	40 K	6	2.0 K	39	10 K	304
7/10/2006	10 K	246	2.0 K	18	35	0.20 K	40 K	6	2.0 K	39	10 K	309
7/24/2006	10 K	286	2.0 K	17	33	0.20 K	40 K	6	2.0 K	29	10 K	287
7/24/2006	10 K	286	2.0 K	17	34	0.20 K	40 K	6	2.0 K	29	10 K	290
8/7/2006	10 K	204	2.0 K	19	56	0.20 K	40 K	6	2.0 K	50	10 K	313
8/7/2006	10 K	222	2.0 K	19	56	0.20 K	40 K	6	2.0 K	50	10	310
8/21/2006	10 K	210	2.0 K	17	98	0.20 K	40 K	9	2.0 K	70	13	272
8/21/2006	10 K	194	2.0 K	18	100	0.20 K	40 K	9	2.0 K	72	12	281
Ai Creek at SR 2 (P11W15) - RM 1.66												
6/12/2006	10 K	682	2.0 K	21	63	0.20 K	40 K	7	2.0 K	59	10 K	321
6/12/2006	10 K	679	2.0 K	21	64	0.20 K	40 K	7	2.0 K	60	10 K	326
6/19/2006												
6/26/2006	10 K	1150	2.0 K	15	57	0.20 K	40 K	8	2.0 K	21	10 K	272
7/5/2006												
7/10/2006	10 K	509	2.0 K	20	54	0.20 K	40 K	8	2.0 K	41	10 K	334
7/24/2006	10 K	553	2.0 K	17	60	0.20 K	40 K	9	2.0 K	33	10 K	300
8/7/2006	10 K	476	2.0 K	19	84	0.20 K	40 K	7	2.0 K	52	10 K	310
8/21/2006	10 K	373	2.0 K	18	116	0.20 K	40 K	9	2.0 K	78	15	281
Fewless Creek												
Fewless Ck at Fulton CR 4 (UTAH) (P11K08) - RM 1.80												
6/12/2006	10 K	742	2.0 K	25	50	0.20 K	40 K	8	2.0 K	27	10 K	330
6/19/2006												
6/26/2006	10 K	536	2.0 K	24	39	0.20 K	40 K	7	2.0 K	18	11	368
7/5/2006												
7/10/2006	10 K	1080	2.0 K	27	71	0.20 K	40 K	13	2.0 K	31	14	378
7/24/2006	10 K	1280	2.2	27	76	0.20 K	40 K	10	2.0 K	30	10	393
8/7/2006	10 K	838	2.0 K	25	83	0.20 K	40 K	9	2.0 K	25	10 K	378
8/21/2006	10 K	1740	2.9	22	169	0.20 K	40 K	14	2.0 K	22	10	305

Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
<u>Swan Creek</u>												
Swan Creek at Fulton CR 6-1 (P11K01) - RM 40.68												
6/12/2006	10 K	160	2.0 K	20	10 K	0.20 K	40 K	6	2.0 K	12	10 K	300
6/19/2006												
6/19/2006												
6/26/2006	10 K	232	2.0 K	20	20	0.20 K	40 K	8	2.0 K	9	10 K	322
6/26/2006	10 K	233	2.0 K	19	19	0.20 K	40 K	7	2.0 K	9	10 K	308
7/5/2006												
7/10/2006	10 K	609	2.0 K	20	31	0.20 K	40 K	8	2.0 K	13	10 K	302
7/24/2006	10 K	698	2.0 K	19	40	0.20 K	40 K	10	2.0 K	15	10 K	298
8/7/2006	10 K	326	2.0 K	19	22	0.20 K	40 K	10	2.0 K	15	10 K	278
8/21/2006	10 K	650	2.0 K	21	164	0.20 K	40 K	12	2.0 K	31	10 K	259
Swan Creek at Fulton CR 3 (P11K02) - RM 34.41												
6/12/2006	10 K	162	2.0 K	20	14	0.20 K	40 K	5	2.0 K	22	10 K	282
6/19/2006												
6/26/2006	10 K	302	2.0 K	19	19	0.20 K	40 K	6	2.0 K	13	10 K	313
7/5/2006												
7/10/2006	10 K	232	2.0 K	20	18	0.20 K	40 K	6	2.0 K	19	10 K	300
7/24/2006	10 K	365	2.0 K	19	31	0.20 K	40 K	8	2.0 K	20	10 K	303
8/7/2006	10 K	412	2.0 K	20	43	0.20 K	40 K	7	2.0 K	26	10 K	307
8/21/2006	10 K	330	2.0 K	20	80	0.20 K	40 K	7	2.0 K	44	10 K	292
Swan Creek at TR 2 (P11K03) - RM 32.82												
6/13/2006	10 K	261	2.0 K	20	33	0.20 K	40 K	6	2.0 K	23	10 K	287
6/19/2006												
6/27/2006	10 K	365	2.0 K	19	37	0.20 K	40 K	7	2.0 K	15	10 K	308
7/5/2006												
7/11/2006	10 K	289	2.0 K	20	37	0.20 K	40 K	7	2.0 K	22	10 K	300
7/25/2006	10 K	318	2.0 K	19	36	0.20 K	40 K	9	2.0 K	22	10 K	305
8/8/2006	10 K	266	2.0 K	19	36	0.20 K	40 K	8	2.0 K	24	10 K	298
8/22/2006	10 K	276	2.0 K	19	44	0.20 K	40 K	9	2.0 K	27	10 K	298

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
Swan Creek at SR 64 (drive into facility) (P11K04) - RM 30.90												
6/13/2006	10 K	491	2.0 K	19	59	0.20 K	40 K	6	2.0 K	24	10 K	285
6/19/2006												
6/27/2006	10 K	458	2.0 K	19	41	0.20 K	40 K	7	2.0 K	15	10 K	305
7/5/2006												
7/11/2006	10 K	461	2.0 K	18	51	0.20 K	40 K	7	2.0 K	21	10 K	281
7/25/2006	10 K	411	2.0 K	19	40	0.20 K	40 K	8	2.0 K	22	10	305
8/8/2006	10 K	432	2.0 K	19	55	0.20 K	40 K	8	2.0 K	24	10 K	298
8/22/2006	10 K	526	2.0 K	17	80	0.20 K	40 K	8	2.0 K	26	10 K	262
Swan Creek at SR 295 (P11P11) - RM 25.99												
6/13/2006	10 K	901	2.0 K	19	60	0.20 K	40 K	5	2.0 K	41	10 K	288
6/19/2006												
Swan Creek at Spencer Rd (P11K21) - RM 24.70												
6/13/2006	10 K	882	2.0 K	18	62	0.20 K	40 K	5	2.0 K	39	10 K	281
6/19/2006												
6/27/2006	10 K	1300	2.0 K	17	68	0.20 K	40 K	7	2.0 K	22	10 K	295
7/5/2006												
7/11/2006	10 K	779	2.0 K	18	62	0.20 K	40 K	6	2.0 K	33	10	299
7/25/2006	10 K	571	2.0 K	17	54	0.20 K	40 K	7	2.0 K	31	10 K	292
7/25/2006	10 K	571	2.0 K	17	55	0.20 K	40 K	7	2.0 K	32	10 K	295
8/8/2006	10 K	569	2.0 K	18	66	0.20 K	40 K	6	2.0 K	40	10 K	296
8/22/2006	10 K	620	2.0 K	15	79	0.20 K	40 K	6	2.0 K	42	10	242
1/22/2007	10 K	491	2.0 K	18	60	0.20 K	40 K	4	2.0 K	31	10 K	281

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
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Blue Creek

Blue Creek at Fulton CR 3 (P11K11) - RM 11.57

6/14/2006	10 K	179	2.0 K	18	60	0.20 K	40 K	5	2.0 K	16	10 K	286
6/19/2006												
6/28/2006	10 K	93	2.0 K	17	14	0.20 K	40 K	7	2.0 K	14	10 K	292
7/5/2006												
7/12/2006	10 K	116	2.0 K	15	88	0.20 K	40 K	9	2.0 K	12	10 K	254
7/26/2006	10 K	103	2.0 K	17	49	0.20 K	40 K	7	2.0 K	17	10 K	280
8/9/2006	10 K	542	2.0 K	16	268	0.20 K	40 K	7	2.0 K	17	10 K	276
8/23/2006	10 K	318	2.0 K	16	506	0.20 K	40 K	7	2.0 K	18	10 K	278

Blue Creek at Manore Rd, 0.3 mi NE of Neopolis (P11P39) - RM 7.81

6/14/2006	10 K	317	2.0 K	18	42	0.20 K	40 K	5	2.0 K	19	10 K	264
6/19/2006												
6/19/2006												
6/28/2006	10 K	183	2.0 K	17	58	0.20 K	40 K	6	2.0 K	17	10 K	275
6/28/2006	10 K	189	2.0 K	17	58	0.20 K	40 K	6	2.0 K	17	10 K	277
7/5/2006												
7/12/2006	10 K	394	2.0 K	15	120	0.20 K	40 K	6	2.0 K	20	10 K	236
7/12/2006	10 K	397	2.0 K	15	121	0.20 K	40 K	6	2.0 K	20	10 K	242
7/26/2006	10 K	350	2.0 K	16	100	0.20 K	40 K	6	2.0 K	19	10 K	261
8/9/2006	10 K	320	2.0 K	17	102	0.20 K	40 K	6	2.0 K	20	10 K	275
8/23/2006	10 K	414	2.0 K	18	244	0.20 K	40 K	7	2.0 K	18	10 K	289

Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
Blue Creek at SR 295 (P11K12) - RM 5.57												
6/14/2006	10 K	196	2.0 K	18	16	0.20 K	40 K	5	2.0 K	24	10 K	276
6/19/2006												
6/28/2006	10 K	215	2.0 K	17	51	0.20 K	40 K	6	2.0 K	21	10 K	280
7/5/2006												
7/12/2006	10 K	546	2.0 K	15	151	0.20 K	40 K	6	2.0 K	25	10 K	236
7/26/2006	10 K	406	2.0 K	17	93	0.20 K	40 K	6	2.0 K	24	10 K	270
7/26/2006	10 K	406	2.0 K	17	95	0.20 K	40 K	6	2.0 K	24	10 K	270
8/9/2006	10 K	406	2.0 K	17	113	0.20 K	40 K	6	2.0 K	24	10 K	272
8/9/2006	10 K	407	2.0 K	17	115	0.20 K	40 K	6	2.0 K	25	10 K	277
8/23/2006	10 K	490	2.0 K	17	213	0.20 K	40 K	7	2.0 K	22	10 K	277
8/23/2006	10 K	526	2.0 K	18	220	0.20 K	40 K	7	2.0 K	23	10 K	289
Blue Creek at Finzel Rd (P11P13) - RM 0.73												
6/14/2006	10 K	286	2.0 K	22	33	0.20 K	40 K	4	2.0 K	32	10 K	305
6/14/2006	10 K	267	2.0 K	22	33	0.20 K	40 K	4	2.0 K	31	10 K	308
6/19/2006												
6/28/2006	10 K	251	2.0 K	21	45	0.20 K	40 K	5	2.0 K	26	10 K	336
7/5/2006												
7/12/2006	10 K	442	2.0 K	18	52	0.20 K	40 K	5	2.0 K	29	10 K	264
7/26/2006	10 K	279	2.0 K	20	49	0.20 K	40 K	5	2.0 K	31	10 K	300
8/9/2006	10 K	345	2.0 K	20	86	0.20 K	40 K	6	2.0 K	32	10 K	307
8/23/2006	10 K	320	2.0 K	21	132	0.20 K	40 K	6	2.0 K	33	10 K	321
<u>Blystone Ditch</u>												
Blystone Ditch at Monclova Rd (P11A03) - RM 0.54												
6/14/2006	10 K	446	2.0 K	33	52	0.20 K	40 K	2	2.0 K	45	10 K	408
6/19/2006												
6/28/2006	10 K	358	2.0 K	30	23	0.20 K	40 K	2	2.0 K	30	10 K	418
7/5/2006												
7/12/2006	10 K	1210	2.0 K	21	43	0.20 K	40 K	3	2.0 K	33	13	289
7/26/2006	10 K	416	2.0 K	30	50	0.20 K	40 K	3	2.0 K	40	10 K	408
8/9/2006	10 K	322	2.0 K	30	59	0.20 K	40 K	3	2.0 K	38	11	406
8/23/2006	10 K	413	2.0 K	33	108	0.20 K	40 K	3	2.0 K	43	12	450

Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
<u>Cairl Ditch</u>												
Cairl Ditch at Pilliad Rd (P11K10) - RM 1.32												
6/15/2006	10 K	300	2.0 K	24	41	0.20 K	40 K	3	2.0 K	50	10 K	338
6/20/2006												
6/29/2006	10 K	578	2.0 K	23	57	0.20 K	40 K	4	2.0 K	40	10 K	332
7/6/2006												
7/13/2006	10 K	1490	2.0 K	13	94	0.20 K	40 K	4	2.0 K	22	10 K	188
7/27/2006	10 K	663	2.0 K	22	68	0.20 K	40 K	4	2.0 K	41	10 K	315
8/10/2006	10 K	915	2.0 K	22	86	0.20 K	40 K	4	2.0 K	43	10 K	315
8/24/2006	10 K	913	2.0 K	20	107	0.20 K	40 K	5	2.0 K	38	10 K	295
<u>Harris Ditch</u>												
Harris Ditch at SR 295 (P11K13) - RM 1.55												
6/14/2006	10 K	179	2.0 K	25	53	0.20 K	40 K	3	2.0 K	28	10 K	358
6/19/2006												
6/28/2006	10 K	189	2.0 K	22	49	0.20 K	40 K	4	2.0 K	22	21	348
7/5/2006												
7/12/2006	10 K	254	2.0 K	22	145	0.20 K	40 K	5	2.0 K	28	10 K	328
7/26/2006	10 K	945	2.0 K	24	283	0.20 K	40 K	5	2.0 K	33	10 K	358
8/9/2006	10 K	4730	3.4	25	1180	0.20 K	40 K	7	2.0 K	38	30	368
8/23/2006	10 K	4820	3.2	26	1280	0.20 K	40 K	8	2.0 K	45	24	382
<u>Heilman Ditch</u>												
Heilman Ditch at Conant Rd, SR 20 (P11K20) - RM 1.76												
6/15/2006	10 K	111	2.0 K	121	33	0.20 K	40 K	15	2.0 K	75	10 K	1250
6/20/2006												
6/29/2006	10 K	174	2.0 K	130	47	0.20 K	40 K	12	2.0 K	64	10 K	1330
7/6/2006												
7/13/2006	10 K	321	2.0 K	82	60	0.20 K	40 K	13	2.0 K	60	12	932
7/27/2006	10 K	180	2.0 K	115	46	0.20 K	40 K	14	2.0 K	61	10 K	1190
8/10/2006	10 K	253	2.0 K	114	49	0.20 K	40 K	11	4.0 K	68	10 K	1220
8/24/2006	10	444	2.0 K	35	142	0.20 K	40 K	21	2.0 K	91	45	416

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
Wolf Creek												
Wolf Creek at Albon Rd (P11K09) - RM 4.06												
6/15/2006	10 K	408	2.0 K	19	115	0.20 K	40 K	4	2.0 K	108	10 K	305
6/20/2006												
6/20/2006												
6/29/2006	10 K	400	2.0 K	21	138	0.20 K	40 K	5	2.0 K	81	10 K	324
7/6/2006												
7/13/2006	10 K	979	2.0 K	10	105	0.20 K	40 K	4	2.0 K	35	10 K	164
7/27/2006	10 K	468	2.0 K	16	70	0.20 K	40 K	4	2.0 K	90	10 K	263
8/10/2006	10 K	572	2.0 K	17	83	0.20 K	40 K	4	2.0 K	102	10 K	285
8/24/2006	10 K	580	2.0 K	17	96	0.20 K	40 K	4	2.0 K	102	17	280
Wolf Creek at Perrysburg-Holland Rd (P11S66) - RM 1.96												
6/15/2006	10 K	588	2.0 K	19	112	0.20 K	40 K	4	2.0 K	84	10 K	310
6/20/2006												
6/29/2006	10 K	869	2.0 K	15	101	0.20 K	40 K	5	2.0 K	54	10	264
7/6/2006												
7/13/2006	10 K	1970	2.4	9	116	0.20 K	40 K	5	2.0 K	25	15	152
7/27/2006	10 K	567	2.0 K	16	77	0.20 K	40 K	4	2.0 K	66	10 K	263
8/10/2006	10 K	513	2.0 K	16	80	0.20 K	40 K	4	2.0 K	67	10 K	266
8/24/2006	10 K	530	2.2	13	86	0.20 K	40 K	3	2.0 K	57	33	221
Wolf Creek at Holland-Sylvania Rd (P11P18) - RM 0.48												
6/15/2006	10 K	638	2.0 K	22	94	0.20 K	40 K	4	2.0 K	84	10 K	338
6/15/2006	10 K	597	2.0 K	21	90	0.20 K	40 K	3	2.0 K	81	10 K	321
6/20/2006												
6/29/2006	10 K	846	2.0 K	17	90	0.20 K	40 K	5	2.0 K	53	11	277
7/6/2006												
7/13/2006	10 K	1970	2.4	10	114	0.20 K	40 K	4	2.0 K	24	11	161
7/27/2006	10 K	574	2.0 K	17	71	0.20 K	40 K	4	2.0 K	60	12	267
8/10/2006	10 K	2190	3.6	26	506	0.20 K	40 K	4	2.0 K	87	46	377
8/10/2006	10 K	2310	3.7	26	513	0.20 K	40 K	4	2.0 K	88	51	379
8/24/2006	10 K	1200	2.1	19	116	0.20 K	40 K	4	2.0 K	85	41	290
8/24/2006	10 K	1180	2.2	19	118	0.20 K	40 K	4	2.0 K	86	43	293

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
Swan Creek												
Swan Creek at Stitt Rd (P11S11) - RM 21.64												
6/13/2006	10 K	792	2.0 K	20	74	0.20 K	40 K	5	2.0 K	37	10 K	297
6/19/2006												
6/27/2006	10 K	981	2.0 K	18	64	0.20 K	40 K	6	2.0 K	23	10 K	296
7/5/2006												
7/11/2006	10 K	557	2.0 K	19	62	0.20 K	40 K	6	2.0 K	33	10 K	303
7/25/2006	10 K	566	2.0 K	18	64	0.20 K	40 K	7	2.0 K	31	10 K	301
8/8/2006	10 K	497	2.0 K	19	76	0.20 K	40 K	6	2.0 K	39	10 K	308
8/22/2006	10 K	564	2.0 K	18	97	0.20 K	40 K	6	2.0 K	50	11	279
Swan Creek at Monclova Rd nr jct w/ Albon W of Monclova (P11K05) - RM 18.46												
6/13/2006	10 K	514	2.0 K	21	50	0.20 K	40 K	4	2.0 K	37	10 K	311
6/19/2006												
6/27/2006	10 K	898	2.0 K	18	55	0.20 K	40 K	6	2.0 K	23	10 K	304
6/27/2006	10 K	775	2.0 K	18	52	0.20 K	40 K	6	2.0 K	23	10 K	296
7/5/2006												
7/11/2006	10 K	435	2.0 K	20	44	0.20 K	40 K	6	2.0 K	34	10	320
7/11/2006	10 K	426	2.0 K	20	44	0.20 K	40 K	6	2.0 K	34	10 K	322
7/25/2006	10 K	335	2.0 K	19	43	0.20 K	40 K	6	2.0 K	31	10 K	308
8/8/2006	10 K	294	2.0 K	19	43	0.20 K	40 K	6	2.0 K	36	10 K	300
8/22/2006	10 K	207	2.0 K	18	48	0.20 K	40 K	6	2.0 K	45	10 K	274
Swan Creek at Salisbury Rd (P11P09) - RM 15.24												
6/13/2006	10 K	438	2.0 K	21	45	0.20 K	40 K	4	2.0 K	38	10 K	309
6/20/2006												
6/27/2006	10 K	1020	2.0 K	19	65	0.20 K	40 K	6	2.0 K	24	10 K	308
7/6/2006												
7/11/2006	10 K	469	2.0 K	21	46	0.20 K	40 K	5	2.0 K	35	10 K	324
7/25/2006	10 K	422	2.0 K	20	46	0.20 K	40 K	6	2.0 K	33	10 K	320
8/8/2006	10 K	377	2.0 K	20	46	0.20 K	40 K	6	2.0 K	38	10 K	312
8/22/2006	10 K	258	2.0 K	21	50	0.20 K	40 K	6	2.0 K	55	10 K	319

Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
Swan Creek at Reynolds Rd, SR 20 (P11P08) - RM 10.84												
6/13/2006	10 K	760	2.0 K	22	96	0.20 K	40 K	4	2.0 K	54	10 K	328
6/20/2006												
6/27/2006	10 K	1180	2.0 K	18	87	0.20 K	40 K	6	2.0 K	32	10 K	289
7/6/2006												
7/11/2006	10 K	510	2.0 K	20	75	0.20 K	40 K	5	2.0 K	48	10 K	317
7/25/2006	10 K	575	2.0 K	20	74	0.20 K	40 K	6	2.0 K	44	10 K	320
8/8/2006	10 K	557	2.0 K	19	73	0.20 K	40 K	5	2.0 K	49	10 K	303
8/22/2006	10 K	457	2.0 K	20	79	0.20 K	40 K	5	2.0 K	61	11	307
1/22/2007	10 K	875	2.0 K	20	96	0.20 K	40 K	4	2.0 K	50	10 K	304
Swan Creek at Arlington Rd (P11K06) - RM 6.00												
6/13/2006	10 K	488	2.0 K	24	70	0.20 K	40 K	4	2.0 K	61	10 K	346
6/20/2006												
Swan Creek at South Ave (P11P05) - RM 4.31												
6/13/2006	10 K	494	2.0 K	24	67	0.20 K	40 K	4	2.0 K	60	10 K	354
6/20/2006												
6/27/2006	10 K	958	2.0 K	19	76	0.20 K	40 K	5	2.0 K	35	10 K	305
7/6/2006												
7/11/2006	10 K	483	2.0 K	22	64	0.20 K	40 K	5	2.0 K	55	10 K	338
7/25/2006	10 K	348	2.0 K	21	50	0.20 K	40 K	6	2.0 K	48	10 K	326
8/8/2006	10 K	359	2.0 K	22	54	0.20 K	40 K	6	2.0 K	55	10 K	338
8/22/2006	10 K	357	2.0 K	24	66	0.20 K	40 K	5	2.0 K	61	10 K	338
Swan Creek at City Park Ave (P11P03) - RM 1.58												
6/13/2006	10 K	377	2.0 K	24	60	0.20 K	40 K	4	2.0 K	61	10 K	351
6/20/2006												
6/27/2006	10 K	925	2.0 K	19	70	0.20 K	40 K	5	2.0 K	35	10 K	308
7/6/2006												
7/11/2006	10 K	287	2.0 K	24	47	0.20 K	40 K	5	2.0 K	55	10 K	358
7/25/2006	10 K	271	2.0 K	21	44	0.20 K	40 K	6	2.0 K	48	10 K	334
8/8/2006	10 K	237	2.0 K	25	42	0.20 K	40 K	6	2.0 K	55	10 K	363
8/22/2006	10 K	241	2.0 K	23	42	0.20 K	40 K	5	2.0 K	63	10 K	324

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Sodium	Zinc	Hardness, Total
	P1042 ug/L	P1045 ug/L	P1051 ug/L	P927 mg/L	P1055 ug/L	P71900 ug/L	P1067 ug/L	P937 mg/L	P1147 ug/L	P929 mg/L	P1092 ug/L	P900 mg/L
Swan Creek at OC Bridge (P11K07) - RM 0.19												
6/13/2006	10 K	1310	2.0 K	18	51	0.20 K	40 K	5	2.0 K	19	10 K	239
6/13/2006	10 K	1340	2.0 K	19	53	0.20 K	40 K	5	2.0 K	18	10 K	243
6/20/2006												
6/20/2006												
6/27/2006	10 K	607	2.0 K	19	51	0.20 K	40 K	5	2.0 K	34	10 K	300
7/6/2006												
7/6/2006												
7/11/2006	10 K	789	2.0 K	18	40	0.20 K	40 K	5	2.0 K	24	10	209
7/25/2006	10 K	1600	2.0	14	73	0.20 K	40 K	7	2.0 K	15	14	190
8/8/2006	10 K	507	2.0 K	15	39	0.20 K	40 K	5	2.0 K	25	11	209
8/8/2006	10 K	387	2.0 K	15	38	0.20 K	40 K	5	2.0 K	24	10 K	204
8/22/2006	10 K	1540	2.0 K	16	44	0.20 K	40 K	6	2.0 K	22	10	181
8/22/2006	10 K	1380	2.0 K	16	43	0.20 K	40 K	6	2.0 K	22	10	181

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Delaware Creek

Delaware Creek at Rohr Dr (P11A07) - RM 0.38

6/15/2006	10 K	437	2.0 K	43	66	0.20 K	40 K	4	2.0 K	252	10 K	562
6/20/2006												
6/29/2006	10 K	456	2.0 K	42	65	0.20 K	40 K	4	2.0 K	246	10 K	560
7/6/2006												
7/13/2006	10 K	415	2.0 K	22	35	0.20 K	40 K	4	2.0 K	79	10 K	288
7/27/2006	10 K	297	2.0 K	37	58	0.20 K	40 K	5	2.0 K	218	10 K	479
8/10/2006	10 K	546	2.0 K	39	120	0.20 K	40 K	5	2.0 K	257	10 K	520
8/24/2006	30	2310	7.7	14	109	0.20 K	40 K	4	2.0 K	66	52	182

Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
Grassy Creek												
Grassy Creek at Ford Rd (P11A05) - RM 4.85												
6/14/2006	10 K	217	2.0 K	41	29	0.20 K	40 K	4	2.0 K	53	10 K	428
6/20/2006												
6/28/2006	15	424	2.0 K	39	58	0.20 K	40 K	4	2.0 K	55	10 K	445
7/6/2006												
7/12/2006	10 K	387	2.0 K	25	44	0.20 K	40 K	4	2.0 K	51	10	283
7/26/2006	10 K	435	2.0 K	37	96	0.20 K	40 K	5	2.0 K	45	10 K	374
8/9/2006	10 K	232	2.0 K	36	83	0.20 K	40 K	5	2.0 K	43	10 K	355
Grassy Creek at Glenwood Rd (P11K18) - RM 0.98												
6/14/2006	10 K	650	2.0 K	34	84	0.20 K	40 K	4	2.0 K	107	10 K	427
6/20/2006												
6/28/2006	10 K	607	2.0 K	26	57	0.20 K	40 K	4	2.0 K	68	10 K	359
7/6/2006												
7/12/2006	10 K	1230	2.0 K	13	53	0.20 K	40 K	3	2.0 K	47	15	166
7/26/2006	10 K	402	2.0 K	30	130	0.20 K	40 K	5	2.0 K	106	10 K	396
8/9/2006	10 K	466	2.0 K	26	110	0.20 K	40 K	5	2.0 K	91	10 K	347
8/23/2006	10 K	405	2.0 K	18	138	0.20 K	40 K	4	2.0 K	60	10 K	241
Grassy Creek Diversion (10.85) at Grand Rapids Rd (P11K19) - RM 0.28												
6/14/2006	10 K	798	2.0 K	32	26	0.20 K	40 K	2	2.0 K	49	10 K	339
6/20/2006												
6/28/2006	10 K	605	2.0 K	24	18	0.20 K	40 K	3	2.0 K	22	11	338
7/6/2006												
7/12/2006	10 K	639	2.0 K	16	20	0.20 K	40 K	3	2.0 K	25	10	201
7/26/2006	10 K	332	2.0 K	27	26	0.20 K	40 K	4	2.0 K	46	10 K	306
8/9/2006	10 K	290	2.0 K	27	27	0.20 K	40 K	4	2.0 K	46	10 K	323
8/23/2006	10 K	475	2.0 K	31	45	0.20 K	40 K	5	2.0 K	57	10 K	382

Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
HUC 04100010 010												
<u>Otter Creek</u>												
Otter Creek at Oakdale Ave (S03P12) - RM 5.92												
6/15/2006	10 K	402	2.0 K	27	87	0.20 K	40 K	3	2.0 K	85	10 K	358
6/20/2006												
6/29/2006	10 K	1100	2.0 K	23	124	0.20 K	40 K	5	2.0 K	54	15	327
7/6/2006												
7/13/2006	10 K	894	2.0 K	19	67	0.20 K	40 K	4	2.0 K	36	11	263
7/27/2006	10 K	333	2.0 K	28	137	0.20 K	40 K	4	2.0 K	87	10 K	368
8/10/2006	10 K	280	2.0 K	24	117	0.20 K	40 K	3	2.0 K	114	10 K	351
8/24/2006	10 K	1810	5.3	17	155	0.20 K	40 K	4	2.0 K	59	50	267
Otter Creek at Consaul St (S03P08) - RM 2.95												
6/15/2006	10 K	414	2.2	35	104	0.20 K	40 K	4	2.0 K	132	10 K	449
6/20/2006												
6/29/2006	10 K	798	2.8	27	139	0.20 K	40 K	5	2.0 K	73	18	366
7/6/2006												
7/13/2006	10 K	1630	4.0	17	82	0.20 K	40 K	4	2.0 K	44	22	240
7/27/2006	10 K	497	3.4	30	178	0.20 K	40 K	5	2.0 K	94	13	383
8/10/2006	10 K	515	3.0	29	187	0.20 K	40 K	5	2.0 K	118	15	389
8/24/2006	10 K	956	6.4	10	125	0.20 K	40 K	3	2.0 K	35	31	131
Otter Creek at Millard Ave (S03P05) - RM 2.13												
6/15/2006	10 K	639	4.2	9	38	0.20 K	40 K	2	2.0 K	25	10	142
6/20/2006												
6/29/2006	10 K	633	2.7	15	66	0.20 K	40 K	3	2.0 K	40	16	199
6/29/2006	10 K	610	2.4	15	62	0.20 K	40 K	3	2.0 K	39	15	197
7/6/2006												
7/13/2006	10 K	1180	3.9	13	63	0.20 K	40 K	3	2.0 K	31	16	171
7/13/2006	10 K	1140	3.9	13	63	0.20 K	40 K	3	2.0 K	30	16	171
7/27/2006	10 K	182	2.0 K	8	26	0.20 K	40 K	3	2.0 K	19	10 K	100
7/27/2006	10 K	194	2.0 K	8	27	0.20 K	40 K	3	2.0 K	19	10 K	103
8/10/2006	10 K	244	2.0 K	8	23	0.20 K	40 K	2	2.0 K	16	10 K	90
8/24/2006	10 K	800	5.4	7	42	0.20 K	40 K	2	2.0 K	11	21	86

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

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"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Copper P1042 ug/L	Iron P1045 ug/L	Lead P1051 ug/L	Magnesium P927 mg/L	Manganese P1055 ug/L	Mercury P71900 ug/L	Nickel P1067 ug/L	Potassium P937 mg/L	Selenium P1147 ug/L	Sodium P929 mg/L	Zinc P1092 ug/L	Hardness, Total P900 mg/L
Otter Creek adj CSX Rd (S03S25) - RM 0.40												
7/27/2006	10 K	152	2.0 K	10	39	0.20 K	40 K	3	2.0 K	23	10 K	121
8/10/2006	10 K	383	2.3	8	35	0.20 K	40 K	3	2.0 K	16	10 K	100
Storm Sewer to Otter Ck at Oakdale Ave												
6/15/2006	10 K	910	2.0 K	40	109	0.20 K	40 K	4	2.0 K	134	25	542

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @	Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	25C P95 Q95 umhos/cm	nitrite P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L

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Ai Creek

Ai Creek at CR L (in town of Ai) (P11K14) - RM 10.44

6/12/2006	200	2.0 K		19	48.5	673	9.85	0.071	0.133	1.48		0.216
6/19/2006												
6/26/2006	197	2.0 K		10	26.9	626	15.2	0.056	0.086	0.73		0.034
7/5/2006												
7/10/2006	233	2.0 K		14	40.1	707	8.37	0.066	0.169	0.95		0.119
7/24/2006	225	2.0 K		28	30.7	623 B	6.93	0.050	0.077	0.79		0.091
8/7/2006	254	2.0 K		10	33.6	675	2.50	0.035	0.060	0.80		0.118
8/21/2006	205	2.1		19	48.0	587	2.65	0.089	0.236	0.53		0.232

Ai Creek at CR L (east of town of Ai) (P11K15) - RM 8.29

6/12/2006	169	2.0 K		13	35.2	588	9.92	0.034	0.050 K	1.11		0.093
6/19/2006												
6/26/2006	183	2.0 K		10	25.8	587	16.0	0.063	0.050 K	0.82		0.044
7/5/2006												
7/10/2006	208	2.0 K		14	32.2	635	9.03	0.026	0.050 K	0.61		0.052
7/24/2006	212	2.0 K		16	27.0	588 B	7.62	0.033	0.337	0.76		0.088
8/7/2006	235	2.0 K		10	34.4	636	2.68	0.020 K	0.050 K	0.29		0.074
8/21/2006	230	2.0 K		22	58.3	679	0.95	0.020 K	0.086	0.57		0.160

Ai Creek at Swanton WWTP (P11K16) - RM 3.50

6/12/2006	145	10		38	143	1040	13.3	1.02	0.111	2.76		2.82
6/26/2006	179	9.6		27	104	810	8.10	0.020 K	0.050 K	1.76		1.14
7/10/2006	166	6.9		37	128	995	9.87	1.56	1.72	3.78		2.60
7/24/2006	212	6.2		22	124	959 B	8.16	0.055	0.088	2.39		1.48
8/7/2006	198	7.0		15	106	915	6.68	0.020 K	0.050 K	1.82		1.16
8/21/2006	158	9.8		47	114	932	8.56	1.34	2.20	4.77		2.44

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665
Ai Creek at Scott Rd (P11K17) - RM 2.10														
6/12/2006	186	3.4		27	94.1	847		9.18	0.505	0.549	2.39		0.829	
6/19/2006														
6/26/2006	186	3.6		15	45.1	643		13.7	0.108	0.152	0.99		0.208	
7/5/2006														
7/10/2006	203	3.6		17	68.8	771		8.65	0.537	0.600	1.70		0.546	
7/10/2006	209	3.6		17	68.7	773		8.55	0.539	0.608	1.71		0.468	
7/24/2006	229	3.5		10	53.5	700 B		7.19	0.217	0.263	1.47		0.332	
7/24/2006	224	2.7		10	53.4	701 B		7.16	0.215	0.266	1.35		0.310	
8/7/2006	238	5.1		15	81.8	834		3.76	0.343	0.625	1.64		0.652	
8/7/2006	234	5.3		15	81.8	842		4.22	0.344	0.551	1.66		0.671	
8/21/2006	188	5.1		25	106	910		4.44	0.769	1.78	3.54		1.21	
8/21/2006	190	5.1		27	106	913		4.44	0.782	1.83	3.31		1.18	
Ai Creek at SR 2 (P11W15) - RM 1.66														
6/12/2006	188	3.6		22	101	871		8.46	0.316	0.348	2.33		0.551	
6/12/2006	184	3.5		24	101	877		9.01	0.325	0.333	2.24		0.553	
6/19/2006														
6/26/2006	172	2.5		21	45.9	613		11.1	0.146	0.197	1.15		0.237	
7/5/2006														
7/10/2006	210	2.8		20	76.3	831		8.12	0.284	0.324	1.55		0.361	
7/24/2006	221	3.0		19	60.7	730 B		5.76	0.178	0.226	1.38		0.268	
8/7/2006	232	4.1		18	86.8	850		3.17	0.234	0.528	1.84		0.413	
8/21/2006	186	5.3		25	116	942		4.57	0.688	0.831	2.71		0.968	
Fewless Creek														
Fewless Ck at Fulton CR 4 (UTAH) (P11K08) - RM 1.80														
6/12/2006	170	2.0 K		19	64.4	759		12.3	0.140	0.234	3.68		0.097	
6/19/2006														
6/26/2006	203	2.0 K		10 K	52.5	782		21.2	0.063	0.123	0.36		0.080	
7/5/2006														
7/10/2006	229	3.1		17	71.4	879		8.61	0.305	0.453	1.51		0.187	
7/24/2006	247	2.0 K		22	64.6	808 B		8.97	0.091	0.155	1.28		0.087	
8/7/2006	247	2.0 K		10 K	59.9	818		6.66	0.077	0.110	0.87		0.087	
8/21/2006	216	2.7		30	50.8	706		3.15	0.202	0.539	0.99		0.164	

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665

Swan Creek

Swan Creek at Fulton CR 6-1 (P11K01) - RM 40.68

6/12/2006				24				13.2		0.050 K	2.23		0.023	
6/19/2006														
6/19/2006														
6/26/2006	184	2.0 K		12	30.8			635	0.080	0.073	0.65		0.023	
6/26/2006	182	2.0 K		12	30.8			633	0.080	0.076	0.75		0.026	
7/5/2006														
7/10/2006	198	2.0 K		20	34.9			639	0.075	0.050 K	0.79		0.024	
7/24/2006	213	2.0 K		10	34.5			609 B	0.062	0.050 K	0.99		0.064	
8/7/2006	204	2.0 K		10	36.0			612	0.043	0.050 K	1.50		0.035	
8/21/2006	214	2.0 K		25	62.6			662	0.052	0.061	0.66		0.075	

Swan Creek at Fulton CR 3 (P11K02) - RM 34.41

6/12/2006	155	2.0 K		16	53.2			647	0.054	0.050 K	1.18		0.020	
6/19/2006														
6/26/2006	181	2.0 K		13	37.7			650	0.061	0.063	0.57		0.039	
7/5/2006														
7/10/2006	186	2.0 K		11	47.1			671	0.043	0.050 K	0.58		0.023	
7/24/2006	227	2.0 K		10	43.0			682 B	0.034	0.050 K	0.75		0.055	
8/7/2006	220	2.0 K		10 K	53.9			707	0.033	0.050 K	0.46		0.051	
8/21/2006	232	2.0 K		16	82.2			780	0.020 K	0.056	1.37		0.068	

Swan Creek at TR 2 (P11K03) - RM 32.82

6/13/2006	179	2.0 K		13	49.5			658	0.070	0.051	1.08		0.057	
6/19/2006														
6/27/2006	184	2.0 K		12	38.4			624	0.064	0.073	0.89		0.049	
7/5/2006														
7/11/2006	222	2.0 K		14	48.2			686	0.035	0.053	1.09		0.072	
7/25/2006	222	2.0 K		27	46.8			657	0.036	0.050 K	0.62		0.062	
8/8/2006	216	2.0 K		18	48.2			688	0.033	0.054	1.47		0.112	
8/22/2006	218	2.0 K		33	50.6			757	0.020 K	0.050 K	0.97		0.089	

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665
Swan Creek at SR 64 (drive into facility) (P11K04) - RM 30.90														
6/13/2006	181	2.0 K	5.5	10	50.9	661		9.25	0.058	0.055	1.17		0.072	
6/19/2006														
6/27/2006	185	2.0 K		15	38.4	617		14.0	0.059	0.076	1.04		0.067	
7/5/2006														
7/11/2006	220	2.0 K		25	46.0	667		8.60	0.027	0.050 K	0.99		0.062	
7/25/2006	214	2.0 K		19	45.8	647		8.25	0.029	0.050 K	0.72		0.063	
8/8/2006	216	2.0 K		15	47.7	683		6.27	0.028	0.059	1.31		0.082	
8/22/2006	194	2.0 K		16	49.2	617		1.71	0.020 K	0.054	0.70		0.092	
Swan Creek at SR 295 (P11P11) - RM 25.99														
6/13/2006	178	2.0 K		16	73.5	725		5.82	0.051	0.050 K	1.70		0.201	
6/19/2006														
Swan Creek at Spencer Rd (P11K21) - RM 24.70														
6/13/2006	182	2.0 K		16	70.7	713		5.37	0.029	0.062	1.26		0.190	
6/19/2006														
6/27/2006	185	4.1		15	47.0	622		10.5	0.089	0.081	1.00		0.162	
7/5/2006														
7/11/2006	228	2.0 K		17	63.4	734		6.02	0.028	0.053	0.90		0.176	
7/25/2006	218	2.0 K		24	58.5	665		4.75	0.050	0.050 K	0.73		0.169	
7/25/2006	215	2.0 K		27	59.1	670		4.64	0.049	0.050 K	0.77		0.155	
8/8/2006	213	2.0 K		15	67.8	738		3.06	0.056	0.073	1.40		0.153	
8/22/2006	179	2.0 K		22	68.6	654		1.21	0.020 K	0.050 K	0.63		0.211	
1/22/2007	180	2.0 K		15	55.4	630		7.01	0.034	0.172	0.85		0.086	

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665

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Blue Creek

Blue Creek at Fulton CR 3 (P11K11) - RM 11.57

6/14/2006	194	2.0 K		16	36.9			578	1.78	0.072	0.066	0.68		0.059
6/19/2006														
6/28/2006	186	2.0 K		16	37.9			550	4.95	0.061	0.052	0.85		0.026
7/5/2006														
7/12/2006	197	2.0 K		20	35.4			539	3.34	0.054	0.050 K	0.69		0.043
7/26/2006	210	2.0 K		21	38.7			563 B	2.42	0.033	0.050 K	0.76		0.050 K UJ
8/9/2006	216	2.0 K		15	37.1			599	1.82	0.022	0.086	0.62		0.046
8/23/2006	226	2.0 K		10 K	38.8			601	0.68	0.028	0.123	0.62		0.104

Blue Creek at Manore Rd, 0.3 mi NE of Neopolis (P11P39) - RM 7.81

6/14/2006	187	2.0 K		16	38.6			557	2.92	0.056	0.085	0.81		0.044
6/19/2006														
6/19/2006														
6/28/2006	191	2.0 K		19	40.1			546	4.77	0.052	0.083	0.84		0.021
6/28/2006	188	2.0 K		13	40.2			546	4.82	0.052	0.082	0.81		0.029
7/5/2006														
7/12/2006	202	2.0 K		20	39.3			549	1.83	0.052	0.075	1.07		0.084
7/12/2006	204	2.0 K		24	40.2			545	1.86	0.052	0.072	0.81		0.084
7/26/2006	203	2.0 K		30	39.4			558 B	2.08	0.036	0.081	0.87		0.182
8/9/2006	213	2.0 K		30	38.6			596	1.61	0.033	0.091	0.60		0.054
8/23/2006	227	2.0 K		10 K	39.9			598	0.48	0.023	0.099	0.67		0.078

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	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95 Q95 umhos/cm	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665
Blue Creek at SR 295 (P11K12) - RM 5.57													
6/14/2006	199	2.0 K		13	47.0	602	2.12	0.068	0.050 K	0.64		0.035	
6/19/2006													
6/28/2006	192	2.0 K		16	47.2	565	5.06	0.071	0.082	0.91		0.202	
7/5/2006													
7/12/2006	197	2.0 K		24	49.9	570	2.26	0.053	0.070	0.89		0.112	
7/26/2006	210	2.0 K		33	47.0	574 B	2.08	0.033	0.050 K	0.79		0.050 K	UJ
7/26/2006	210	2.0 K		33	46.9	577 B	2.03	0.033	0.050 K	0.81		0.050 K	UJ
8/9/2006	215	2.0 K		21	45.1	613	1.41	0.020 K	0.055	0.61		0.066	
8/9/2006	218	2.0 K		15	45.0	619	1.44	0.020 K	0.053	0.57		0.061	
8/23/2006	221	2.0 K		18	46.4	614	0.57	0.020 K	0.071	0.94		0.094	
8/23/2006	220	2.0 K		12	46.6	616	0.57	0.020 K	0.094	1.09		0.070	
Blue Creek at Finzel Rd (P11P13) - RM 0.73													
6/14/2006	198	2.0 K		10	61.3	687	5.67	0.036	0.050 K	0.70		0.023	
6/14/2006	201	2.0 K		13	61.0	684	5.59	0.036	0.050 K	0.78		0.024	
6/19/2006													
6/28/2006	216	2.0 K		13	55.5	688	7.76	0.048	0.067	1.03		0.028	
7/5/2006													
7/12/2006	210	2.0 K		17	57.2	631	2.74	0.020 K	0.061	0.96		0.082	
7/26/2006	234	2.0 K		27	60.6	655 B	2.21	0.020 K	0.050 K	0.80		0.039	
8/9/2006	230	2.0 K		18	55.9	690	1.31	0.020 K	0.052	0.58		0.056	
8/23/2006	230	2.0 K		12	64.6	709	0.46	0.020 K	0.062	0.80		0.087	
<u>Blystone Ditch</u>													
Blystone Ditch at Monclova Rd (P11A03) - RM 0.54													
6/14/2006	254	2.0 K		19	88.2	911	1.15	0.020 K	0.059	0.70		0.044	
6/19/2006													
6/28/2006	254	2.0 K		11	65.9	822	6.12	0.044	0.065	1.31		0.050	
7/5/2006													
7/12/2006	215	2.6		17	65.0	692	1.50	0.020 K	0.050 K	0.89		0.516	
7/26/2006	286	2.0 K		21	78.4	857 B	0.51	0.020 K	0.050 K	0.57		0.626	J
8/9/2006	297	2.0 K		10	72.9	910	0.58	0.020 K	0.050 K	0.77		0.078	
8/23/2006	281	2.0 K		10 K	84.8	965	0.67	0.020 K	0.053	0.70		0.087	

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665
<u>Cairl Ditch</u>														
Cairl Ditch at Pilliad Rd (P11K10) - RM 1.32														
6/15/2006	242	2.0 K		19	82.4	800		3.70	0.026	0.050 K	1.04		0.038	
6/20/2006														
6/29/2006	230	2.0 K		13	75.8	775		5.64	0.048	0.073	1.04		0.056	
7/6/2006														
7/13/2006	147	2.3		17	36.8	459		3.38	0.057	0.147	1.12		0.139	
7/27/2006	244	2.0 K		19	71.9	757		3.08	0.034	0.085	0.92		0.069	
8/10/2006	232	2.0 K		13	71.5	755		2.87	0.029	0.075	1.19		0.049	
8/24/2006	270	2.0 K		12	66.2	699		2.21	0.037	0.089	0.77		0.068	
<u>Harris Ditch</u>														
Harris Ditch at SR 295 (P11K13) - RM 1.55														
6/14/2006	242	2.0 K		10	60.4	755		6.92	0.114	0.050 K	1.22		0.033	
6/19/2006														
6/28/2006	231	2.0 K		13	54.4	675		8.14	0.082	0.058	0.76		0.019	
7/5/2006														
7/12/2006	265	2.0 K		20	62.2	725		3.42	0.094	0.083	1.44		0.058	J
7/26/2006	278	2.0 K		27	67.8	736 B		1.95	0.056	0.091	0.96		0.044	
8/9/2006	286	4.2		24	72.8	809		0.59	0.043	0.280	1.25		0.178	
8/23/2006	309	4.3		24	95.6	940		0.26	0.020 K	0.371	1.37		0.248	J
<u>Heilman Ditch</u>														
Heilman Ditch at Conant Rd, SR 20 (P11K20) - RM 1.76														
6/15/2006	227	4.8		11	144	2220		3.89	0.184	5.21	9.51		0.308	
6/20/2006														
6/29/2006	207	2.0 K		11	127	2180		6.80	0.139	3.65	5.31		0.600	
7/6/2006														
7/13/2006	210	4.3		17	118	1740		6.05	0.199	4.71	6.80		2.11	
7/27/2006	220	5.3		16	130	2180		10.3	0.274	6.30	8.66		1.57	
8/10/2006	238	5.8		10 K	125	2100		3.31	0.194	3.75	4.89		0.810	
8/24/2006	256	32		70	258	1450		16.4	0.747	19.1	20.5		0.780	J

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665
Wolf Creek														
Wolf Creek at Albon Rd (P11K09) - RM 4.06														
6/15/2006	220	2.0 K		16	159	1040		1.24	0.024	0.079	1.21		0.062	
6/20/2006														
6/20/2006														
6/29/2006	246	2.0 K		16	131	973		1.87	0.087	0.223	1.25		0.289	
7/6/2006														
7/13/2006	131	2.0 K		24	56.4	473		1.03	0.020 K	0.058	0.99		0.093	J
7/27/2006	201	2.0 K		22	141	919		1.78	0.020 K	0.051	1.09		0.051	
8/10/2006	197	2.0 K		15	144	973		2.72	0.020 K	0.053	0.81		0.051	
8/24/2006	249	2.7		26	157	1010		1.54	0.031	0.099	1.15		0.081	
Wolf Creek at Perrysburg-Holland Rd (P11S66) - RM 1.96														
6/15/2006	221	2.0 K		19	128	906		0.92	0.020 K	0.050 K	1.37		0.044	
6/20/2006														
6/29/2006	185	2.0 K		19	90.5	727		1.49	0.061	0.118	1.41		0.084	
7/6/2006														
7/13/2006	133	2.4		24	41.6	408		1.02	0.020 K	0.050 K	0.79		0.123	
7/27/2006	199	2.0 K		22	100	762		1.11	0.020 K	0.055	0.99		0.050	
8/10/2006	196	2.0 K		15	103	774		0.89	0.020 K	0.050 K	0.80		0.044	
8/24/2006	191	3.1		24	91.6	673		1.00	0.020 K	0.135	0.98		0.042	
Wolf Creek at Holland-Sylvania Rd (P11P18) - RM 0.48														
6/15/2006	229	2.0 K		19	132	945		1.70	0.020	0.056	1.37		0.063	
6/15/2006	228	2.0 K		16	133	942		1.64	0.020	0.053	1.54		0.052	
6/20/2006														
6/29/2006	194	2.0 K		25	93.7	761		2.12	0.051	0.114	1.14		0.067	
7/6/2006														
7/13/2006	141	2.4		20	40.9	432		1.80	0.030	0.050 K	0.79		0.267	
7/27/2006	204	2.0 K		19	102	795		1.50	0.020 K	0.050 K	1.08		0.059	
8/10/2006	217	2.0 K		15	134	933		0.99	0.020 K	0.183	1.07		0.104	
8/10/2006	217	2.0 K		15	133	926		0.89	0.020 K	0.176	1.04		0.090	
8/24/2006	208	9.2		35	150	927		1.52	0.031	0.138	1.20		0.065	
8/24/2006	203	8.8		35	147	918		1.03	0.030	0.131	1.33		0.071	

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665	Q665
Swan Creek														
Swan Creek at Stitt Rd (P11S11) - RM 21.64														
6/13/2006	196	2.0 K		19	69.1	719		5.40	0.034	0.050 K	1.09			0.135
6/19/2006														
6/27/2006	193	2.0 K		15	49.0	632		9.65	0.068	0.073	0.90			0.146
7/5/2006														
7/11/2006	236	2.0 K		17	64.3	732		5.15	0.020 K	0.050 K	0.82			0.190
7/25/2006	225	2.0 K		19	59.2	670		4.19	0.023	0.050 K	0.65			0.114
8/8/2006	226	2.0 K		24	66.2	725		2.36	0.020 K	0.050 K	1.43			0.132
8/22/2006	199	2.0 K		33	83.3	751		1.46	0.020 K	0.050 K	0.74			0.235
Swan Creek at Monclova Rd nr jct w/ Albon W of Monclova (P11K05) - RM 18.46														
6/13/2006	204	2.0 K		19	69.4	732		5.30	0.022	0.050 K	1.16			0.112
6/19/2006														
6/27/2006	186	2.0 K		15	48.8	623		9.82	0.079	0.079	1.15			0.109
6/27/2006	185	2.0 K		12	48.2	616		9.89	0.081	0.074	0.98			0.116
7/5/2006														
7/11/2006	244	2.0 K		20	63.9	750		5.94	0.020 K	0.050 K	0.56			0.101
7/11/2006	244	2.0 K		17	63.8	746		5.90	0.020 K	0.050 K	0.77			0.093
7/25/2006	231	2.0 K		21	60.1	683		4.21	0.020 K	0.050 K	0.63			0.095
8/8/2006	219	2.0 K		18	65.4	734		2.55	0.020 K	0.058	1.42			0.112
8/22/2006	201	2.0 K		19	75.7	720		0.94	0.020 K	0.050 K	0.85			0.178
Swan Creek at Salisbury Rd (P11P09) - RM 15.24														
6/13/2006	207	2.0 K		16	73.8	755		5.00	0.021	0.056	1.17			0.104
6/20/2006														
6/27/2006	194	2.0 K		18	49.0	626		9.88	0.088	0.083	1.22			0.129
7/6/2006														
7/11/2006	246	2.0 K		17	66.8	760		5.30	0.020 K	0.050 K	0.88			0.085
7/25/2006	239	2.0 K		16	63.1	723		4.11	0.020 K	0.050 K	0.65			0.099
8/8/2006	232	2.0 K		21	68.4	756		2.29	0.020 K	0.050 K	1.24			0.112
8/22/2006	216	2.0 K		16	85.7	794		0.97	0.020 K	0.050 K	0.29			0.133

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665
Swan Creek at Reynolds Rd, SR 20 (P11P08) - RM 10.84														
6/13/2006	215	2.0 K		16	97.8	843		4.30	0.023	0.054	1.24			0.150
6/20/2006														
6/27/2006	189	2.0 K		15	61.6	647		7.94	0.087	0.104	1.23			0.158
7/6/2006														
7/11/2006	243	2.0 K		17	85.8	816		9.56	0.020 K	0.053	1.49			0.075
7/25/2006	226	2.0 K		19	80.2	751		3.32	0.020 K	0.050 K	0.85			0.087
8/8/2006	222	2.0 K		21	85.5	798		1.92	0.020 K	0.055	1.43			0.100
8/22/2006	214	2.0 K		25	101	844		0.92	0.020 K	0.050 K	0.35			0.087
1/22/2007	192	2.0 K		16	82.8	718		5.20	0.022	0.184	3.12			0.097
Swan Creek at Arlington Rd (P11K06) - RM 6.00														
6/13/2006	224	2.0 K		13	112	921		4.00	0.050	0.073	1.51			0.108
6/20/2006														
Swan Creek at South Ave (P11P05) - RM 4.31														
6/13/2006	225	2.0 K		30	112	929		3.98	0.038	0.059	1.50			0.119
6/20/2006														
6/27/2006	195	2.0 K		15	67.6	691		8.09	0.062	0.088	1.01			0.118
7/6/2006														
7/11/2006	244	2.0 K		17	95.8	878		5.53	0.043	0.085	0.84			0.500
7/25/2006	240	2.0 K		19	87.4	815		3.29	0.020 K	0.050 K	0.77			0.090
8/8/2006	223	2.0 K		13	95.7	874		2.70	0.080	0.193	2.38			0.193
8/22/2006	209	2.0 K		19	105	921		1.16	0.025	0.068	0.69			0.146
Swan Creek at City Park Ave (P11P03) - RM 1.58														
6/13/2006	223	2.0 K		16	110	929		4.09	0.032	0.050 K	1.48			0.111
6/20/2006														
6/27/2006	198	2.0 K		21	67.0	685		8.94	0.060	0.078	1.32			0.111
7/6/2006														
7/11/2006	247	2.0 K		14	96.4	899		5.78	0.024	0.050	1.25			0.088
7/25/2006	231	2.0 K		24	84.4	805		3.36	0.020	0.050 K	1.52			0.091
8/8/2006	226	2.0 K		13	94.3	905		2.33	0.037	0.072	2.19			0.128
8/22/2006	184	2.0 K		22	102	879		1.43	0.034	0.079	0.68			0.222

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665
Swan Creek at OC Bridge (P11K07) - RM 0.19														
6/13/2006	147	4.5		22	48.1	517		7.24	0.060	0.050 K	1.53		0.148	
6/13/2006	153	4.0		27	33.0	519		7.25	0.058	0.050 K	1.38		0.137	
6/20/2006														
6/20/2006														
6/27/2006	189	2.0 K		33	65.6	683		8.46	0.071	0.106	0.99		0.094	
7/6/2006														
7/6/2006														
7/11/2006	148	4.8		17	42.0	508		3.64	0.056	0.186	0.62		0.077	
7/25/2006	133	3.5		16	26.6	415		3.09	0.033	0.050 K	0.50		0.129	
8/8/2006	145	2.5		10	43.3	516		1.51	0.028	0.084	0.72		0.077	
8/8/2006	148	2.5		10	43.8	522		1.55	0.028	0.082	0.57		0.094	
8/22/2006	127	16		22	39.8	454		0.55	0.042	0.398	0.88		0.257	
8/22/2006	126	17		25	40.0	451		0.57	0.040	0.402	0.80		0.240	

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Delaware Creek

Delaware Creek at Rohr Dr (P11A07) - RM 0.38

6/15/2006	318	2.0 K		11	468	2070		2.28	0.083	0.106	1.35		0.089	
6/20/2006														
6/29/2006	290	2.0 K		11	457	1990		2.71	0.028	0.089	1.02		0.086	J
7/6/2006														
7/13/2006	234	2.0 K		14	125	901		1.21	0.041	0.092	0.92		0.166	
7/27/2006	298	2.0 K		27	431	1920		1.68	0.020 K	0.050 K	2.46		0.088	
8/10/2006	270	2.0 K		13	503	2070		1.23	0.020 K	0.060	0.96		0.131	
8/24/2006	128	9.2		32	116	675		1.20	0.032	0.314	1.22		0.122	

Swan Ck Sur Swan Ck Survey Data from 2006

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DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665
<u>Grassy Creek</u>														
Grassy Creek at Ford Rd (P11A05) - RM 4.85														
6/14/2006	177	2.0 K		10 K	68.8			979	0.76	0.020 K	0.050 K	0.84		0.037
6/20/2006														
6/28/2006	231	2.0 K		13	81.3			993	2.18	0.020 K	0.055	0.94		0.023
7/6/2006														
7/12/2006	192	2.0 K		17	71.1			770	0.88	0.020 K	0.050 K	0.48		0.260
7/26/2006	166	2.0 K		21	55.8			839 B	0.51	0.020 K	0.050 K	0.65		0.059
8/9/2006	153	2.7		15	54.0			845	0.64	0.022	0.112	0.85		0.074
Grassy Creek at Glenwood Rd (P11K18) - RM 0.98														
6/14/2006	228	2.0 K		13	191			1240	0.72	0.020 K	0.103	1.05		0.075
6/20/2006														
6/28/2006	217	2.0 K		19	123			952	1.80	0.020 K	0.110	1.18		0.038
7/6/2006														
7/12/2006	120	3.6		27	85.7			565	0.55	0.020 K	0.050 K	0.61		0.105
7/26/2006	246	2.0 K		24	183			1170 B	0.53	0.022	0.164	0.81		0.088
8/9/2006	215	2.0 K		18	146			1070	0.62	0.020 K	0.172	0.93		0.307
8/23/2006	152	2.0 K		21	117			812	0.40	0.024	0.194	0.92		0.112
Grassy Creek Diversion (10.85) at Grand Rapids Rd (P11K19) - RM 0.28														
6/14/2006	133	2.0 K		10	89.5			819	2.45	0.020 K	0.050 K	0.85		0.046
6/20/2006														
6/28/2006	210	2.0 K			45.4			677		0.020 K				
7/6/2006														
7/12/2006	131	2.0 K		17	45.0			516	1.02	0.022	0.050	0.93		0.113
7/26/2006	163	2.0 K		24	84.6			755 B	0.40	0.020 K	0.050 K	0.70		0.059
8/9/2006	178	2.0 K		13	82.8			827	0.31	0.020 K	0.050 K	0.68		0.071
8/23/2006	150	2.0 K		21	90.4			939	0.49	0.020 K	0.053	0.79		0.339

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Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Alkalinity	BOD5	TOC	COD	Chloride	Conductivity @		Nitrate+	Nitrite	Ammonia	TKN	Oil & Grease	Total Phosphorus	
	P410 mg/L	P310 mg/L	P680 mg/L	P340 mg/L	P940 mg/L	P95	Q95	P630 mg/L	P615 mg/L	P610 mg/L	P625 mg/L	P556 mg/L	P665 mg/L	Q665

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Otter Creek

Otter Creek at Oakdale Ave (S03P12) - RM 5.92

6/15/2006	257	2.1		16	106			996		1.29	0.086	0.108	1.40		0.147
6/20/2006															
6/29/2006	183	2.0 K		16	83.1			822		0.81	0.040	0.190	0.97		0.114
7/6/2006															
7/13/2006	198	2.0 K		17	58.2			643		2.30	0.030	0.052	1.91		0.134
7/27/2006	241	2.0 K		25	113			1050		1.08	0.039	0.171	1.45		0.219
8/10/2006	200	2.0 K		15	150			1140		0.49	0.030	0.095	1.05		0.193
8/24/2006	190	4.6		24	63.2			739		0.77	0.045	0.154	0.61		0.284

Otter Creek at Consaul St (S03P08) - RM 2.95

6/15/2006	279	2.0 K		16	191			1330		0.96	0.062	0.113	1.36		0.157
6/20/2006															
6/29/2006	212	2.1		19	109			959		1.05	0.050	0.157	1.24		0.137
7/6/2006															
7/13/2006	169	2.4		17	68.6			637		2.08	0.036	0.061	1.42		0.115
7/27/2006	222	2.0 K		22	134			1110		0.50	0.043	0.163	1.61		0.146
8/10/2006	220	2.1		15	163			1180		0.21	0.020 K	0.110	1.33		0.225
8/24/2006	94.4	4.6		18	63.3			436		0.50	0.020 K	0.190	0.73		0.164

Otter Creek at Millard Ave (S03P05) - RM 2.13

6/15/2006	67.7	2.7		10 K	44.1			373		2.16	0.148	0.061	0.47		0.132
6/20/2006															
6/29/2006	106	2.0 K		11	67.1			559		0.78	0.079	0.093	0.79		0.101
6/29/2006	106	2.0 K		11	67.2			558		1.12	0.079	0.096	0.79		0.096
7/6/2006															
7/13/2006	119	2.0 K		11	50.8			477		1.59	0.065	0.067	0.81		0.111
7/13/2006	119	2.0 K		10 K	51.0			479		1.80	0.064	0.055	0.80		0.114
7/27/2006	51.6	2.0 K		11	34.4			307		1.25	0.077	0.066	0.49		0.154
7/27/2006	51.1	2.0 K		13	34.4			307		1.16	0.077	0.065	0.54		0.157
8/10/2006	49.0	2.0 K		10 K	27.8			254		0.35	0.039	0.061	0.99		0.159
8/24/2006	49.0	2.0 K		10 K	21.4			209		0.57	0.033	0.166	0.45		0.168

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Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Alkalinity P410 mg/L	BOD5 P310 mg/L	TOC P680 mg/L	COD P340 mg/L	Chloride P940 mg/L	Conductivity @ 25C P95 Q95 umhos/cm	Nitrate+ nitrite P630 mg/L	Nitrite P615 mg/L	Ammonia P610 mg/L	TKN P625 mg/L	Oil & Grease P556 mg/L	Total Phosphorus P665 mg/L	Q665
Otter Creek adj CSX Rd (S03S25) - RM 0.40													
7/27/2006	64.2	2.0 K		11	41.7	362	0.91	0.071	0.072	0.83		0.160	
8/10/2006	52.5	2.0 K		10 K	27.6	267	0.29	0.026	0.056	0.49		0.171	
Storm Sewer to Otter Ck at Oakdale Ave													
6/15/2006	234	16		51	190	1510	0.63	0.524	0.260	1.74	7.6	0.233	

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids	Total Suspended Solids	Sulfate	Acidity	Aluminum	Barium	Strontium	Total Phosphorus, dissolved	
	P70300	Q70300	P530	P945	P70508	P1105	P1007	P1082	P666
	mg/L		mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	

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Ai Creek

Ai Creek at CR L (in town of Ai) (P11K14) - RM 10.44

6/12/2006	410	6	47.6	5.0 K	308	58	679
6/19/2006							
6/26/2006	410	5 K	54.2	5.0 K	200 K	53	367
7/5/2006							
7/10/2006	430	14	50.4	5.0 K	285	58	513
7/24/2006	404	6	50.6	5.0 K	200 K	55	422
8/7/2006	424	13	46.1	5.0 K	358	58	446
8/21/2006	356	32	33.6	5.0 K	699	50	619

Ai Creek at CR L (east of town of Ai) (P11K15) - RM 8.29

6/12/2006	366	10	45.9	5.0 K	385	47	425
6/19/2006							
6/26/2006	384	8	50.8	5.0 K	237	49	371
7/5/2006							
7/10/2006	386	8	46.6	5.0 K	231	48	395
7/24/2006	378	8	47.1	5.0 K	227	50	376
8/7/2006	400	12	45.6	5.0 K	353	52	420
8/21/2006	410	12	31.3	5.0 K	416	52	580

Ai Creek at Swanton WWTP (P11K16) - RM 3.50

6/12/2006	642	8	104	5.0 K	200 K	53	985
6/26/2006	512	16	79.7	5.0 K	200 K	43	723
7/10/2006	618	5 K	98.7	5.0 K	200 K	42	834
7/24/2006	608	5 K	86.0	5.0 K	200 K	49	801
8/7/2006	558	8	88.8	5.0 K	200 K	50	752
8/21/2006	584	5 K	101	5.0 K	200 K	44	974

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 mg/L	Sulfate P530 mg/L	Acidity P945 mg/L	Aluminum P70508 ug/L	Barium P1105 ug/L	Strontium P1007 ug/L	Total Phosphorus, dissolved P1082 ug/L	P666 mg/L
Ai Creek at Scott Rd (P11K17) - RM 2.10									
6/12/2006	520	9	78.0	5.0 K	254	53	735		
6/19/2006									
6/26/2006	412	28	56.0	5.0 K	491	52	445		
7/5/2006									
7/10/2006	464	7	65.3	5.0 K	200 K	48	560		
7/10/2006	472	7	65.1	5.0 K	200 K	50	556		
7/24/2006	448	8	58.2	5.0 K	200 K	48	479		
7/24/2006	450	8	60.3	5.0 K	200 K	49	483		
8/7/2006	514	6	70.3	5.0 K	200 K	55	686		
8/7/2006	516	5	69.5	5.0 K	200 K	54	682		
8/21/2006	560	5 K	100	5.0 K	200 K	46	1020		
8/21/2006	564	5 K	94.2	5.0 K	200 K	48	1040		
Ai Creek at SR 2 (P11W15) - RM 1.66									
6/12/2006	532	20	79.7	5.0 K	384	67	838		
6/12/2006	536	17	79.1	5.0 K	370	67	853		
6/19/2006									
6/26/2006	406	41	55.2	5.0 K	781	64	508		
7/5/2006									
7/10/2006	502	11	74.6	5.0 K	269	72	695		
7/24/2006	458	10	60.6	5.0 K	217	64	609		
8/7/2006	510	11	69.8	5.0 K	206	71	730		
8/21/2006	578	5	91.9	5.0 K	528	60	1180		
Fewless Creek									
Fewless Ck at Fulton CR 4 (UTAH) (P11K08) - RM 1.80									
6/12/2006	462	23	81.3	5.0 K	390	66	740		
6/19/2006									
6/26/2006	504	18	75.2	5.0 K	239	68	648		
7/5/2006									
7/10/2006	566	20	91.2	5.0 K	309	88	840		
7/24/2006	536	36	79.5	5.0 K	547	80	824		
8/7/2006	526	27	77.8	5.0 K	372	74	780		
8/21/2006	460	44	69.9	5.0 K	838	79	776		

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids	Total Suspended Solids	Sulfate	Acidity	Aluminum	Barium	Strontium	Total Phosphorus, dissolved	
	P70300	Q70300	P530	P945	P70508	P1105	P1007	P1082	P666
	mg/L		mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	

Swan Creek

Swan Creek at Fulton CR 6-1 (P11K01) - RM 40.68

6/12/2006					200 K	63	418	
6/19/2006								
6/19/2006								
6/26/2006	416		5 K	47.8	5.0 K	200 K	70	395
6/26/2006	416		5 K	47.6	5.0 K	200 K	68	381
7/5/2006								
7/10/2006	376		15	45.1	5.0 K	392	68	408
7/24/2006	392		13	40.8	5.0 K	339	73	509
8/7/2006	400		7	38.7	5.0 K	219	69	422
8/21/2006	402		13	33.3	5.0 K	432	64	550

Swan Creek at Fulton CR 3 (P11K02) - RM 34.41

6/12/2006	386		5 K	50.8	5.0 K	200 K	52	436
6/19/2006								
6/26/2006	414		6	51.1	5.0 K	200 K	61	403
7/5/2006								
7/10/2006	402		6	49.5	5.0 K	200 K	59	431
7/24/2006	422		6	45.3	5.0 K	200 K	63	433
8/7/2006	438		7	50.1	5.0 K	232	63	490
8/21/2006	470		5 K	46.4	5.0 K	200 K	61	615

Swan Creek at TR 2 (P11K03) - RM 32.82

6/13/2006	410		5 K	52.8	5.0 K	200 K	65	449
6/19/2006								
6/27/2006	418		7	54.2	5.0 K	200 K	70	408
7/5/2006								
7/11/2006	434		6	49.9	5.0 K	200 K	71	452
7/25/2006	440		5	51.2	5.0 K	200 K	75	455
8/8/2006	450		5 K	47.5	5.0 K	200 K	72	453
8/22/2006	458 PT		5	47.5	5.0 K	200 K	76	503

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 P530 mg/L	Sulfate P945 mg/L	Acidity P70508 mg/L	Aluminum P1105 ug/L	Barium P1007 ug/L	Strontium P1082 ug/L	Total Phosphorus, dissolved P666 mg/L
Swan Creek at SR 64 (drive into facility) (P11K04) - RM 30.90								
6/13/2006	410	8	51.1	5.0 K	221	65	461	
6/19/2006								
6/27/2006	422	10	52.8	5.0 K	237	69	405	
7/5/2006								
7/11/2006	416	10	46.9	5.0 K	206	66	431	0.044
7/25/2006	426	7	49.3	5.0 K	200 K	73	461	
8/8/2006	438	8	47.7	5.0 K	200 K	71	465	
8/22/2006	434	6	43.1	5.0 K	200 K	65	480	
Swan Creek at SR 295 (P11P11) - RM 25.99								
6/13/2006	456	22	58.6	5.0 K	490	64	580	0.150
6/19/2006								
Swan Creek at Spencer Rd (P11K21) - RM 24.70								
6/13/2006	446	12	56.2	5.0 K	474	62	567	
6/19/2006								
6/27/2006	422	34	57.1	5.0 K	767	67	496	0.120
7/5/2006								
7/11/2006	464	21	56.3	5.0 K	377	66	560	0.122
7/25/2006	434	14	54.6	5.0 K	254	65	540	0.124
7/25/2006	442	14	55.1	5.0 K	258	66	550	0.122
8/8/2006	478	14	53.0	5.0 K	276	67	580	0.114
8/22/2006	428	12	50.5	5.0 K	281	58	574	0.187
1/22/2007	384	7	54.8	5.0 K	243	49	404	

Swan Ck Sur Swan Ck Survey Data from 2006

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"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 mg/L	P530 mg/L	Sulfate P945 mg/L	Acidity P70508 mg/L	Aluminum P1105 ug/L	Barium P1007 ug/L	Strontium P1082 ug/L	Total Phosphorus, dissolved P666 mg/L
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Blue Creek

Blue Creek at Fulton CR 3 (P11K11) - RM 11.57

6/14/2006	362	5 K	41.6	5.0 K	200 K	96	288
6/19/2006							
6/28/2006	340	5 K	42.6	5.0 K	200 K	96	278
7/5/2006							
7/12/2006	328	5 K	34.8	5.0 K	200 K	90	255
7/26/2006	380	5 K	40.7	5.0 K	200 K	85	287
8/9/2006	370	13	39.2	5.0 K	200 K	93	284
8/23/2006	396	5	31.9	5.0 K	200 K	100	302

Blue Creek at Manore Rd, 0.3 mi NE of Neopolis (P11P39) - RM 7.81

6/14/2006	342	5 K	36.4	5.0 K	200 K	75	344
6/19/2006							
6/19/2006							
6/28/2006	336	5 K	39.3	5.0 K	200 K	84	321
6/28/2006	338	5 K	37.9	5.0 K	200 K	85	320
7/5/2006							
7/12/2006	324	5 K	31.6	5.0 K	200 K	76	425
7/12/2006	324	5	32.1	5.0 K	200 K	78	433
7/26/2006	356	5 K	37.1	5.0 K	200 K	77	337
8/9/2006	370	5 K	35.4	5.0 K	200 K	78	354
8/23/2006	398	6	29.6	5.0 K	200 K	85	395

Swan Ck Sur Swan Ck Survey Data from 2006

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 mg/L	Sulfate P530 mg/L	Acidity P945 mg/L	Aluminum P70508 ug/L	Barium P1105 ug/L	Strontium P1007 ug/L	Total Phosphorus, dissolved P1082 ug/L	P666 mg/L
Blue Creek at SR 295 (P11K12) - RM 5.57									
6/14/2006	380	5 K	37.1	5.0 K	200 K	76	467		
6/19/2006									
6/28/2006	354	5 K	38.2	5.0 K	200 K	80	363		
7/5/2006									
7/12/2006	362	11	32.0	5.0 K	200 K	75	454		
7/26/2006	370	7	37.0	5.0 K	200 K	77	408		
7/26/2006	374	7	37.8	5.0 K	200 K	78	408		
8/9/2006	394	6	35.6	5.0 K	200 K	76	413		
8/9/2006	390	7	34.7	5.0 K	200 K	78	422		
8/23/2006	394	8	32.3	5.0 K	200 K	86	511		
8/23/2006	402	9	32.1	5.0 K	200 K	90	530		
Blue Creek at Finzel Rd (P11P13) - RM 0.73									
6/14/2006	420	5	41.7	5.0 K	200 K	64	579		
6/14/2006	390	6	43.4	5.0 K	200 K	63	569		
6/19/2006									
6/28/2006	402	7	44.3	5.0 K	200 K	78	522		
7/5/2006									
7/5/2006									
7/12/2006	386	11	39.7	5.0 K	200 K	62	624		
7/26/2006	428	5 K	42.5	5.0 K	200 K	69	595		
8/9/2006	424	6	42.6	5.0 K	200 K	71	632		
8/23/2006	454	5 K	43.6	5.0 K	200 K	74	802		
<u>Blystone Ditch</u>									
Blystone Ditch at Monclova Rd (P11A03) - RM 0.54									
6/14/2006	564	6	86.5	5.0 K	266	52	1330		
6/19/2006									
6/28/2006	498	6	72.5	5.0 K	240	54	968		
7/5/2006									
7/12/2006	424	26	55.2	5.0 K	693	47	869		
7/26/2006	558	7	78.7	5.0 K	225	54	1270		
8/9/2006	570	7	82.8	5.0 K	200 K	51	1400		
8/23/2006	620	9	121	5.0 K	200 K	64	2020		

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

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"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 mg/L	Sulfate P530 mg/L	Acidity P945 mg/L	Aluminum P70508 ug/L	Barium P1105 ug/L	Strontium P1007 ug/L	Total Phosphorus, dissolved P1082 ug/L	P666 mg/L
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Cairl Ditch

Cairl Ditch at Pilliad Rd (P11K10) - RM 1.32

6/15/2006	476	5	54.9	5.0 K	200 K	83	752	
6/20/2006								
6/29/2006	456	16	53.5	5.0 K	266	84	709	
7/6/2006								
7/13/2006	290	44	29.7	5.0 K	764	58	427	
7/27/2006	516	15	57.4	5.0 K	285	86	761	
8/10/2006	464	20	51.5	5.0 K	443	89	823	
8/24/2006	442	20	43.6	5.0 K	490	95	756	

Harris Ditch

Harris Ditch at SR 295 (P11K13) - RM 1.55

6/14/2006	450	5 K	38.0	5.0 K	200 K	72	490	
6/19/2006								
6/28/2006	410	5 K	37.7	5.0 K	200 K	75	440	
7/5/2006								
7/12/2006	450	8	34.3	5.0 K	200 K	72	493	
7/26/2006	470	26	34.5	5.0 K	565	91	547	
8/9/2006	512	143	28.7	5.0 K	2910	133	626	
8/23/2006	604	145	27.2	5.0 K	3030	154	654	

Heilman Ditch

Heilman Ditch at Conant Rd, SR 20 (P11K20) - RM 1.76

6/15/2006	1820	5 K	951	5.0 K	200 K	20	18700	
6/20/2006								
6/29/2006	1840	9	950	5.0 K	200 K	21	19900	
7/6/2006								
7/13/2006	1360	7	627	5.0 K	200 K	32	14800	
7/27/2006	1890 PT	6	962	5.0 K	200 K	18	17900	
8/10/2006	1760	9	890	5.0 K	200 K	21	18200	
8/24/2006	914	9	97.4	5.0 K	200 K	40	1670	

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 mg/L	Sulfate P530 mg/L	Acidity P945 mg/L	Aluminum P70508 ug/L	Barium P1105 ug/L	Strontium P1007 ug/L	Total Phosphorus, dissolved P1082 ug/L	P666 mg/L
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Wolf Creek

Wolf Creek at Albon Rd (P11K09) - RM 4.06

6/15/2006	604	5 K	61.6	5.0 K	200 K	114	1010	
6/20/2006								
6/20/2006								
6/29/2006	558	5	52.0	5.0 K	200 K	103	2010	
7/6/2006								
7/13/2006	314	10	30.6	5.0 K	292	71	509	
7/27/2006	606	5 K	59.2	5.0 K	200 K	108	828	
8/10/2006	582	5 K	59.5	5.0 K	200 K	114	858	
8/24/2006	628	10	63.7	5.0 K	222	113	1010	

Wolf Creek at Perrysburg-Holland Rd (P11S66) - RM 1.96

6/15/2006	532	6	54.7	5.0 K	200 K	102	799	
6/20/2006								
6/29/2006	418	13	43.4	5.0 K	266	94	704	
7/6/2006								
7/13/2006	262	32	23.8	5.0 K	1050	65	457	
7/27/2006	516	6	49.7	5.0 K	200 K	89	760	
8/10/2006	462	5	48.3	5.0 K	200 K	93	751	
8/24/2006	418	11	42.6	5.0 K	213	78	655	

Wolf Creek at Holland-Sylvania Rd (P11P18) - RM 0.48

6/15/2006	556	13	59.3	5.0 K	244	97	818	
6/15/2006	558	10	59.9	5.0 K	216	92	789	
6/20/2006								
6/29/2006	446	23	48.1	5.0 K	308	88	707	
7/6/2006								
7/13/2006	280	45	26.0	5.0 K	1010	62	444	
7/27/2006	486	12	52.2	5.0 K	200 K	82	724	
8/10/2006	562	55	54.4	5.0 K	1110	102	829	
8/10/2006	562	53	54.6	5.0 K	1160	103	836	
8/24/2006	580	40	59.8	5.0 K	605	88	831	
8/24/2006	586	36	58.7	5.0 K	610	91	837	

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 mg/L	Sulfate P530 mg/L	Acidity P945 mg/L	Aluminum P70508 ug/L	Barium P1105 ug/L	Strontium P1007 ug/L	Total Phosphorus, dissolved P1082 ug/L	P666 mg/L
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Swan Creek

Swan Creek at Stitt Rd (P11S11) - RM 21.64

6/13/2006	448	19	47.6	5.0 K	440	63	564	
6/19/2006								
6/27/2006	424	23	51.5	5.0 K	579	67	486	
7/5/2006								
7/11/2006	452	12	52.2	5.0 K	210	67	571	
7/25/2006	434	13	53.0	5.0 K	243	67	563	
8/8/2006	480	12	48.0	5.0 K	219	69	603	
8/22/2006	494	11	59.2	5.0 K	259	63	690	

Swan Creek at Monclova Rd nr jct w/ Albon W of Monclova (P11K05) - RM 18.46

6/13/2006	444	10	54.0	5.0 K	293	62	595	
6/19/2006								
6/27/2006	416	19	52.1	5.0 K	538	67	502	
6/27/2006	424	21	52.3	5.0 K	458	63	488	
7/5/2006								
7/11/2006	472	12	54.6	5.0 K	200 K	69	620	
7/11/2006	470	10	54.6	5.0 K	200 K	69	621	
7/25/2006	434	7	56.0	5.0 K	200 K	64	595	
8/8/2006	474	5 K	51.0	5.0 K	200 K	63	593	
8/22/2006	470	5 K	56.8	5.0 K	200 K	56	688	

Swan Creek at Salisbury Rd (P11P09) - RM 15.24

6/13/2006	466	9	57.7	5.0 K	258	60	609	
6/20/2006								
6/27/2006	418	24	51.4	5.0 K	628	66	509	
7/6/2006								
7/11/2006	472	13	48.9	5.0 K	200 K	66	628	
7/25/2006	456	8	57.3	5.0 K	200 K	66	631	
8/8/2006	468	9	52.9	5.0 K	200 K	66	634	
8/22/2006	522	6	63.2	5.0 K	200 K	65	783	

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids		Total Suspended Solids	Sulfate	Acidity	Aluminum	Barium	Strontium	Total Phosphorus, dissolved
	P70300	Q70300	P530	P945	P70508	P1105	P1007	P1082	P666
	mg/L		mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L
Swan Creek at Reynolds Rd, SR 20 (P11P08) - RM 10.84									
6/13/2006	522		18	57.4	5.0 K	384	72	678	
6/20/2006									
6/27/2006	426		33	50.4	5.0 K	665	69	547	0.082
7/6/2006									
7/11/2006	498		15	54.7	5.0 K	200 K	75	682	0.060
7/25/2006	476		12	57.1	5.0 K	258	74	660	0.057
8/8/2006	508		14	51.7	5.0 K	257	73	677	0.075
8/22/2006	536		9	55.9	5.0 K	200 K	74	775	0.072
1/22/2007	456		16	52.6	5.0 K	420	58	510	
Swan Creek at Arlington Rd (P11K06) - RM 6.00									
6/13/2006	576		10	72.3	5.0 K	251	69	968	0.089
6/20/2006									
Swan Creek at South Ave (P11P05) - RM 4.31									
6/13/2006	576		10	72.5	5.0 K	256	70	990	
6/20/2006									
6/27/2006	444		26	58.4	5.0 K	528	67	656	
7/6/2006									
7/11/2006	554		11	67.9	5.0 K	200 K	74	927	
7/25/2006	498		7	59.6	5.0 K	200 K	68	806	
8/8/2006	554		6	76.1	5.0 K	200 K	73	1110	
8/22/2006	590		8	97.7	5.0 K	200 K	69	1650	
Swan Creek at City Park Ave (P11P03) - RM 1.58									
6/13/2006	572		5	73.2	5.0 K	208	67	1010	
6/20/2006									
6/27/2006	452		27	58.0	5.0 K	515	66	672	
7/6/2006									
7/11/2006	582		6	79.8	5.0 K	200 K	73	1170	
7/25/2006	492		6	63.8	5.0 K	200 K	70	893	
8/8/2006	574		5	95.4	5.0 K	200 K	74	1520	
8/22/2006	554		5	128	5.0 K	200 K	66	1590	

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 mg/L	P530	Sulfate P945 mg/L	Acidity P70508 mg/L	Aluminum P1105 ug/L	Barium P1007 ug/L	Strontium P1082 ug/L	Total Phosphorus, dissolved P666 mg/L
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Swan Creek at OC Bridge (P11K07) - RM 0.19

6/13/2006	352 PT	28	47.6	5.0 K	974	51	775
6/13/2006	346 PT	29	47.6	5.0 K	1010	52	790
6/20/2006							
6/20/2006							
6/27/2006	456	11	59.7	5.0 K	343	63	728
7/6/2006							
7/6/2006							
7/11/2006	338	23	48.6	5.0 K	464	44	743
7/25/2006	260	34	35.5	5.0 K	1080	48	603
8/8/2006	326	14	45.0	5.0 K	361	47	729
8/8/2006	318	14	44.4	5.0 K	253	46	707
8/22/2006	292	47	42.8	5.0 K	1080	48	596
8/22/2006	290	44	43.8	5.0 K	962	48	588

HUC 04100009 090

Delaware Creek

Delaware Creek at Rohr Dr (P11A07) - RM 0.38

6/15/2006	1230	5 K	102	5.0 K	200 K	89	1840
6/20/2006							
6/29/2006	1170	8	106	5.0 K	200 K	96	2220
7/6/2006							
7/13/2006	534	8	59.8	5.0 K	200 K	53	1820
7/27/2006	1150	5 K	98.0	5.0 K	200 K	84	1750
8/10/2006	1230	13	93.3	5.0 K	200 K	96	2020
8/24/2006	442	60	40.5	5.0 K	1240	53	1300

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 mg/L	Sulfate P530 mg/L	Acidity P945 mg/L	Aluminum P70508 mg/L	Barium P1105 ug/L	Strontium P1007 ug/L	Total Phosphorus, dissolved P1082 ug/L	P666 mg/L
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Grassy Creek

Grassy Creek at Ford Rd (P11A05) - RM 4.85

6/14/2006	656	10	227	5.0 K	200 K	53	5310	
6/20/2006								
6/28/2006	628	7	181	5.0 K	234	59	4250	
7/6/2006								
7/12/2006	468	5	115	5.0 K	200 K	43	2800	
7/26/2006	576	18	219	5.0 K	208	51	4870	
8/9/2006	566	10	200	5.0 K	200 K	49	4650	

Grassy Creek at Glenwood Rd (P11K18) - RM 0.98

6/14/2006	736	15	106	5.0 K	322	70	2790	
6/20/2006								
6/28/2006	568	8	92.2	5.0 K	314	61	2240	
7/6/2006								
7/12/2006	320	31	39.6	5.0 K	632	39	1440	
7/26/2006	750	7	105	5.0 K	200 K	69	2760	
8/9/2006	644	8	92.5	5.0 K	222	64	2670	
8/23/2006	496	6	62.5	5.0 K	200 K	44	1800	

Grassy Creek Diversion (10.85) at Grand Rapids Rd (P11K19) - RM 0.28

6/14/2006	516	20	129	5.0 K	517	44	2270	
6/20/2006								
6/28/2006	422	12	80.0	5.0 K	400	45	1540	
7/6/2006								
7/12/2006	338	14	70.0	5.0 K	337	35	1670	
7/26/2006	490	7	116	5.0 K	234	48	2440	
8/9/2006	522	6	121	5.0 K	211	49	2740	
8/23/2006	654	13	190	5.0 K	278	62	4080	

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids P70300 mg/L	Total Suspended Solids Q70300 mg/L	Sulfate P530 mg/L	Acidity P945 mg/L	Aluminum P70508 ug/L	Barium P1105 ug/L	Strontium P1007 ug/L	Total Phosphorus, dissolved P1082 ug/L	P666 mg/L
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HUC 04100010 010

Otter Creek

Otter Creek at Oakdale Ave (S03P12) - RM 5.92

6/15/2006	630	5	126	5.0 K	200 K	57	2160	
6/20/2006								
6/29/2006	534	14	115	5.0 K	584	59	1780	
7/6/2006								
7/13/2006	408	12	65.8	5.0 K	508	55	1520	
7/27/2006	766	5 K	161	5.0 K	200 K	58	2420	
8/10/2006	720	5 K	160	5.0 K	200 K	58	2380	
8/24/2006	500	60	118	5.0 K	703	81	2470	

Otter Creek at Consaul St (S03P08) - RM 2.95

6/15/2006	832	6	142	5.0 K	200 K	83	2940	
6/20/2006								
6/29/2006	600	12	122	5.0 K	332	76	2320	
7/6/2006								
7/13/2006	400	25	63.8	5.0 K	991	62	1940	
7/27/2006	790	10	168	5.0 K	213	82	3090	
8/10/2006	736	8	146	5.0 K	200 K	87	3460	
8/24/2006	270	39	39.1	5.0 K	555	38	1180	

Otter Creek at Millard Ave (S03P05) - RM 2.13

6/15/2006	240	33	47.4	5.0 K	424	24	527	
6/20/2006								
6/29/2006	328	23	71.1	5.0 K	369	46	1590	
6/29/2006	326	23	70.8	5.0 K	350	45	1580	
7/6/2006								
7/13/2006	294	34	52.3	5.0 K	723	44	1340	
7/13/2006	286	37	50.5	5.0 K	688	44	1310	
7/27/2006	184	13	47.2	5.0 K	200 K	21	443	
7/27/2006	186	13	47.3	5.0 K	200 K	21	447	
8/10/2006	152	14	34.7	5.0 K	200 K	19	361	
8/24/2006	130	37	29.9	5.0 K	566	21	256	

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	Total Dissolved Solids	Total Suspended Solids	Sulfate	Acidity	Aluminum	Barium	Strontium	Total Phosphorus, dissolved	
	P70300	Q70300	P530	P945	P70508	P1105	P1007	P1082	P666
	mg/L		mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	

Otter Creek adj CSX Rd (S03S25) - RM 0.40

7/27/2006	234	8	53.9	5.0 K	200 K	25	667
8/10/2006	170	19	34.4	5.0 K	301	20	417

Storm Sewer to Otter Ck at Oakdale Ave

6/15/2006	990	10	292	5.0 K	200 K	85	5320
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Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
HUC 04100009 070		
<u>Ai Creek</u>		
Ai Creek at CR L (in town of Ai) (P11K14) - RM 10.44		
6/12/2006		Arsenic estimated due to poor correlation between field duplicates.
6/19/2006		
6/26/2006		
7/5/2006		
7/10/2006		
7/24/2006		
8/7/2006		
8/21/2006		
Ai Creek at CR L (east of town of Ai) (P11K15) - RM 8.29		
6/12/2006		Arsenic estimated due to poor correlation between field duplicates.
6/19/2006		
6/26/2006		
7/5/2006		
7/10/2006		
7/24/2006		
8/7/2006		
8/21/2006		
Ai Creek at Swanton WWTP (P11K16) - RM 3.50		
6/12/2006		Arsenic estimated due to poor correlation between field duplicates.
6/26/2006		
7/10/2006		
7/24/2006		
8/7/2006		
8/21/2006		

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
Ai Creek at Scott Rd (P11K17) - RM 2.10		
6/12/2006		Arsenic estimated due to poor correlation between field duplicates.
6/19/2006		
6/26/2006		
7/5/2006		
7/10/2006		
7/10/2006		
7/24/2006		
7/24/2006		
8/7/2006		
8/7/2006		
8/21/2006		
8/21/2006		
Ai Creek at SR 2 (P11W15) - RM 1.66		
6/12/2006		Arsenic estimated due to poor correlation between field duplicates.
6/12/2006		Arsenic estimated due to poor correlation between field duplicates.
6/19/2006		
6/26/2006		
7/5/2006		
7/10/2006		
7/24/2006		
8/7/2006		
8/21/2006		
<u>Fewless Creek</u>		
Fewless Ck at Fulton CR 4 (UTAH) (P11K08) - RM 1.80		
6/12/2006		Arsenic estimated due to poor correlation between field duplicates.
6/19/2006		
6/26/2006		
7/5/2006		
7/10/2006		
7/24/2006		
8/7/2006		
8/21/2006		

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS	
<u>Swan Creek</u>			
Swan Creek at Fulton CR 6-1 (P11K01) - RM 40.68			
6/12/2006		Arsenic estimated due to poor correlation between field duplicates.	
6/19/2006			
6/19/2006			
6/26/2006			
6/26/2006			
7/5/2006			
7/10/2006			
7/24/2006			
8/7/2006			
8/21/2006			
Swan Creek at Fulton CR 3 (P11K02) - RM 34.41			
6/12/2006		Arsenic estimated due to poor correlation between field duplicates.	
6/19/2006			
6/26/2006			
7/5/2006			
7/10/2006			
7/24/2006			
8/7/2006			
8/21/2006			
Swan Creek at TR 2 (P11K03) - RM 32.82			
6/13/2006			Total dissolved solids past holding time due to reanalysis.
6/19/2006			
6/27/2006			
7/5/2006			
7/11/2006			
7/25/2006			
8/8/2006			
8/22/2006			

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
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Swan Creek at SR 64 (drive into facility) (P11K04) - RM 30.90

6/13/2006
6/19/2006
6/27/2006
7/5/2006
7/11/2006
7/25/2006
8/8/2006
8/22/2006

Swan Creek at SR 295 (P11P11) - RM 25.99

6/13/2006
6/19/2006

Swan Creek at Spencer Rd (P11K21) - RM 24.70

6/13/2006
6/19/2006
6/27/2006
7/5/2006
7/11/2006
7/25/2006
7/25/2006
8/8/2006
8/22/2006
1/22/2007

BOD5 estimated due to poor correlation between dilutions.

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
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HUC 04100009 080

Blue Creek

Blue Creek at Fulton CR 3 (P11K11) - RM 11.57

6/14/2006
6/19/2006
6/28/2006
7/5/2006
7/12/2006
7/26/2006
8/9/2006
8/23/2006

TP estimated due to matrix interference.

Blue Creek at Manore Rd, 0.3 mi NE of Neopolis (P11P39) - RM 7.81

6/14/2006
6/19/2006
6/19/2006
6/28/2006
6/28/2006
7/5/2006
7/12/2006
7/12/2006
7/26/2006
8/9/2006
8/23/2006

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
	Blue Creek at SR 295 (P11K12) - RM 5.57	
6/14/2006		
6/19/2006		
6/28/2006		
7/5/2006		
7/12/2006		
7/26/2006		TP estimated due to matrix interference.
7/26/2006		TP estimated due to matrix interference.
8/9/2006		
8/9/2006		
8/23/2006		
8/23/2006		
	Blue Creek at Finzel Rd (P11P13) - RM 0.73	
6/14/2006		
6/14/2006		
6/19/2006		
6/28/2006		
7/5/2006		
7/5/2006		
7/12/2006		
7/26/2006		
8/9/2006		
8/23/2006		
	<u>Blystone Ditch</u>	
	Blystone Ditch at Monclova Rd (P11A03) - RM 0.54	
6/14/2006		
6/19/2006		
6/28/2006		
7/5/2006		
7/12/2006		
7/26/2006		TP estimated due to matrix interference.
8/9/2006		
8/23/2006		

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
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Cairl Ditch

Cairl Ditch at Pilliad Rd (P11K10) - RM 1.32

6/15/2006

6/20/2006

6/29/2006

7/6/2006

7/13/2006

7/27/2006

8/10/2006

8/24/2006

Harris Ditch

Harris Ditch at SR 295 (P11K13) - RM 1.55

6/14/2006

6/19/2006

6/28/2006

7/5/2006

7/12/2006

7/26/2006

8/9/2006

8/23/2006

TP estimated due to poor correlation between dilutions.

BOD5 estimated due to poor agreement between dilutions.

Total phosphorus estimated due to matrix interference.

Heilman Ditch

Heilman Ditch at Conant Rd, SR 20 (P11K20) - RM 1.76

6/15/2006

6/20/2006

6/29/2006

7/6/2006

7/13/2006

7/27/2006

8/10/2006

8/24/2006

Water looks chalky

Total dissolved solids past holding time due to reanalysis.

Total phosphorus estimated due to matrix interference.

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
<u>Wolf Creek</u>		
Wolf Creek at Albon Rd (P11K09) - RM 4.06		
6/15/2006		
6/20/2006		
6/20/2006		
6/29/2006		
7/6/2006		
7/13/2006	Heavy rain night before	TP estimated due to poor correlation between dilutions.
7/27/2006		
8/10/2006		
8/24/2006		
Wolf Creek at Perrysburg-Holland Rd (P11S66) - RM 1.96		
6/15/2006		
6/20/2006		
6/29/2006		
7/6/2006		
7/13/2006		
7/27/2006		
8/10/2006		
8/24/2006		
Wolf Creek at Holland-Sylvania Rd (P11P18) - RM 0.48		
6/15/2006		
6/15/2006		
6/20/2006		
6/29/2006		
7/6/2006		
7/13/2006		
7/27/2006		
8/10/2006		
8/10/2006	Discharge to feeder trib on left bank	
8/24/2006		
8/24/2006		

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
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Swan Creek

Swan Creek at Stitt Rd (P11S11) - RM 21.64

6/13/2006
6/19/2006
6/27/2006
7/5/2006
7/11/2006
7/25/2006
8/8/2006
8/22/2006

Swan Creek at Monclova Rd nr jct w/ Albon W of Monclova (P11K05) - RM 18.46

6/13/2006
6/19/2006
6/27/2006
6/27/2006
7/5/2006
7/11/2006
7/11/2006
7/25/2006
8/8/2006
8/22/2006

Swan Creek at Salisbury Rd (P11P09) - RM 15.24

6/13/2006
6/20/2006
6/27/2006
7/6/2006
7/11/2006
7/25/2006
8/8/2006
8/22/2006

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
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Swan Creek at Reynolds Rd, SR 20 (P11P08) - RM 10.84

6/13/2006
6/20/2006
6/27/2006
7/6/2006
7/11/2006
7/25/2006
8/8/2006
8/22/2006
1/22/2007

Swan Creek at Arlington Rd (P11K06) - RM 6.00

6/13/2006
6/20/2006

Swan Creek at South Ave (P11P05) - RM 4.31

6/13/2006
6/20/2006
6/27/2006
7/6/2006
7/11/2006
7/25/2006
8/8/2006
8/22/2006

Swan Creek at City Park Ave (P11P03) - RM 1.58

6/13/2006
6/20/2006
6/27/2006
7/6/2006
7/11/2006 petro sheen observed
7/25/2006
8/8/2006
8/22/2006

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
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Swan Creek at OC Bridge (P11K07) - RM 0.19

6/13/2006

6/13/2006

6/20/2006

6/20/2006

6/27/2006

7/6/2006

7/6/2006

7/11/2006 petro sheen observed

7/25/2006

8/8/2006

8/8/2006

8/22/2006

8/22/2006

TDS past holding time due to reanalysis.

TDS past holding time due to reanalysis.

HUC 04100009 090**Delaware Creek****Delaware Creek at Rohr Dr (P11A07) - RM 0.38**

6/15/2006

6/20/2006

6/29/2006

7/6/2006

7/13/2006

7/27/2006

8/10/2006

8/24/2006

Total phosphorus estimated due to matrix interference.

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
	<u>Grassy Creek</u>	
	Grassy Creek at Ford Rd (P11A05) - RM 4.85	
6/14/2006		
6/20/2006		
6/28/2006		
7/6/2006		
7/12/2006		
7/26/2006		
8/9/2006		
	Grassy Creek at Glenwood Rd (P11K18) - RM 0.98	
6/14/2006		
6/20/2006		
6/28/2006		
7/6/2006		
7/12/2006		
7/26/2006		TP estimated due to matrix interference.
8/9/2006		
8/23/2006		
	Grassy Creek Diversion (10.85) at Grand Rapids Rd (P11K19) - RM 0.28	
6/14/2006		
6/20/2006		
6/28/2006		
7/6/2006		
7/12/2006		
7/26/2006		
8/9/2006		
8/23/2006		COD, TKN, TP, NH3, and NO3 canceled due to lab accident - DT 7-10-06

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE FIELD COMMENTS QC COMMENTS

HUC 04100010 010

Otter Creek

Otter Creek at Oakdale Ave (S03P12) - RM 5.92

6/15/2006
6/20/2006
6/29/2006
7/6/2006
7/13/2006
7/27/2006
8/10/2006
8/24/2006

Otter Creek at Consaul St (S03P08) - RM 2.95

6/15/2006
6/20/2006
6/29/2006
7/6/2006
7/13/2006
7/27/2006
8/10/2006
8/24/2006

sheen on surface

TP estimated due to poor correlation between dilutions.

Otter Creek at Millard Ave (S03P05) - RM 2.13

6/15/2006
6/20/2006
6/29/2006
6/29/2006
7/6/2006
7/13/2006
7/13/2006
7/27/2006
7/27/2006
8/10/2006
8/24/2006

Swan Ck Sur Swan Ck Survey Data from 2006

Note: P column is result value.

Q column is lab qualifiers (see worksheet for qualifier definitions).

"K" in the remark field = less than (<) indicating the result was < the method detection limit which is reported as the result.

"L" in the remark field = greater than (>) indicating the result was > the method detection limit which is reported as the result.

DATE	FIELD COMMENTS	QC COMMENTS
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Otter Creek adj CSX Rd (S03S25) - RM 0.40

7/27/2006

8/10/2006

Storm Sewer to Otter Ck at Oakdale Ave

6/15/2006 Oil sheen observed on surface

Appendix F

Mechanisms for Water Quality Impairment

Mechanisms for Water Quality Impairment

The following paragraphs describe the various causes of impairment that were encountered during the Swan Creek and Lower Maumee River tributary study. While these perturbations are presented under separate headings, it is important to remember that they are often interrelated and cumulative in terms of the detrimental impact that can result.

Habitat and Flow Alterations

Habitat alteration, such as channelization, negatively impacts biological communities by limiting the complexity of living spaces available to aquatic organisms. Consequently, fish and macroinvertebrate communities are not as diverse. Indirect impacts include agricultural activities such as the removal of trees and shrubs adjacent to streams (described throughout this report as riparian vegetation) and field tiling to facilitate drainage. Urbanization impacts include removal of riparian trees, influx of stormwater run off, straightening and piping of stream channels, and riparian vegetation removal. Following a rain event, most of the water is quickly removed from tiled fields or urban settings rather than filtering through the soil, vegetation, recharging groundwater, and reaching the stream at a lower volume and more sustained rate. As a result, small streams more frequently go dry or become intermittent.

Tree shade is important because it limits the energy input from the sun, moderates water temperature, and limits evaporation. Removal of the tree canopy further degrades conditions because it eliminates an important source of coarse organic matter essential for a balanced ecosystem. Riparian vegetation aids in nutrient uptake, may decrease run-off rate into streams, and helps keep soil in place. Erosion impacts channelized streams more severely due to the lack of a riparian buffer to slow runoff, trap sediment and stabilize banks. Deep trapezoidal channels lack a functioning flood plain and therefore cannot expel sediment as would occur during flood events along natural watercourses. Additionally, the confinement of flow within an artificially deep channel accelerates the movement of water downstream, exacerbating flooding of neighboring properties.

The lack of water movement under low flow conditions can exacerbate degradation from organic loading and nutrient enrichment by limiting aeration of the stream. The amount of oxygen soluble in water decreases as temperature increases. This is one reason why tree shade is so important. The two main sources of oxygen in water are diffusion from the atmosphere and plant photosynthesis. Turbulence at the water surface is critical because it increases surface area and promotes diffusion, but channelization eliminates turbulence produced by riffles, meanders, and debris snags. Plant photosynthesis produces oxygen, but at night, respiration reverses the process and consumes oxygen. Conversely, oxygen concentrations can become supersaturated during the day, due to abnormally high amounts of photosynthesis, causing gas bubble stress to both fish and invertebrate communities. Oxygen is also used by bacteria that consume dead organic matter. Nutrient enrichment promotes the growth of nuisance algae that subsequently dies and serves as food for bacteria. Under these conditions, oxygen can be depleted unless it is replenished from the air.

Siltation and Sedimentation

Whenever the natural flow regime is altered to facilitate drainage, increased amounts of sediment are likely to enter streams either by overland transport or increased bank erosion. The removal of vegetated and wooded riparian areas furthers the erosion process. Channelization keeps all but the highest flow events confined within the artificially high banks. As a result, areas that were formerly flood plains and facilitated the removal of sediment from the primary stream channel no longer serve this function. As water levels fall following a rain event, interstitial spaces between larger rocks fill with sand and silt and the diversity of available habitat to support fish and macroinvertebrates is reduced. Silt also can clog the gills of both fish and macroinvertebrates, reduce visibility thereby excluding obligate site feeding fish species, and smother the nests of lithophilic fishes. Lithophilic spawning fish require clean substrates with interstitial voids in which to deposit eggs. Conversely, pioneering species benefit. They are generalists and best suited for exploiting disturbed and less heterogeneous habitats. The net result is a lower diversity of aquatic species compared with a typical warmwater stream with natural habitats.

Sediment also impacts water quality, recreation, and drinking water. Nutrients absorbed to soil particles remain trapped in the watercourse. Likewise, bacteria, pathogens, and pesticides which also attach to suspended or bedload sediments become concentrated in waterways where the channel is functionally isolated from the landscape.

Nutrient Enrichment

The element of greatest concern is phosphorus because it is critical for plant growth and is often the limiting nutrient. The form that can be readily used by plants and therefore can stimulate nuisance algae blooms is orthophosphate (PO_4^{3-}). The amount of phosphorus tied up in the nucleic acids of food and waste is actually quite low. This organic material is eventually converted to orthophosphate by bacteria. The amount of orthophosphate contained in synthetic detergents is a great concern however. It was for this reason that the General Assembly of the State of Ohio enacted a law in 1990 to limit phosphorus content in household laundry detergents sold in the Lake Erie drainage basin to 0.5 % by weight. Inputs of phosphorus originate from both point and nonpoint sources. Most of the phosphorus discharged by point sources is soluble. Another characteristic of point sources is they have a continuous impact and are human in origin, for instance, effluents from municipal sewage treatment plants. The contribution from failed on-site wastewater treatment systems can also be significant, especially if they are concentrated in a small area. Line graphs for phosphorus (Fig. 7) and E. coli (Fig. 6) samples taken in Swan Creek closely mimic one another for the middle and lower stretches of the stream. The phosphorus concentration in raw waste water is generally 8-10 mg/l and after secondary treatment is generally 4-6 mg/l. Further removal requires the added cost of chemical addition. The most common methods use the addition of lime or alum to form a precipitate, so most phosphorus (80%) ends up in the sludge.

A characteristic of phosphorus discharged by nonpoint sources is that the impact is intermittent and is most often associated with stormwater runoff. Most of this phosphorus is bound tightly to soil particles and enters streams from erosion, although some comes from tile drainage. Phosphorus input from urban stormwater is more of a concern if combined sewer overflows are involved. Phosphorus load from rural stormwater varies depending on land use and management practices and includes contributions from livestock feedlots and pastures and row crop

agriculture. Crop fertilizer includes granular inorganic types and organic types such as manure or sewage sludge. Pasture land is especially a concern if the livestock have access to the stream. Large feedlots with manure storage lagoons create the potential for overflows and accidental spills. Land management is an issue because erosion is worse on streams without any riparian buffer zone to trap runoff. The impact is worse in streams that are channelized because they no longer have a functioning flood plain and cannot expel sediment during flooding. Oxygen levels must also be considered, because phosphorus is released from sediment at higher rates under anoxic conditions.

There is no numerical phosphorus criterion established in the Ohio Water Quality Standards, but there is a narrative criterion that states phosphorus should be limited to the extent necessary to prevent nuisance growths of algae and weeds (Administrative Code, 3745-1-04, Part E). Phosphorus loadings from large volume point source dischargers in the Lake Erie drainage basin are regulated by the National Pollutant Discharge Elimination System (NPDES). The permit limit is a concentration of 1.0 mg/l in final effluent. Research conducted by the Ohio EPA indicates that a significant correlation exists between phosphorus and the health of aquatic communities (Miltner and Rankin, 1998). It was concluded that biological community performance in headwater and wadeable streams was highest where phosphorus concentrations were lowest. It was also determined that the lowest phosphorus concentrations were associated with the highest quality habitats, supporting the notion that habitat is a critical component of stream function. The report recommends WWH criteria of 0.08 mg/l in headwater streams (<20 mi² watershed size), 0.10 mg/l in wadeable streams (>20-200 mi²) and 0.17 mg/l in small rivers (>200-1000 mi²).

Organic Enrichment and Low Dissolved Oxygen

The amount of oxygen soluble in water is low and it decreases as temperature increases. This is one reason why tree shade is so important. The two main sources of oxygen in water are diffusion from the atmosphere and plant photosynthesis. Turbulence at the water surface is critical because it increases surface area and promotes diffusion. Drainage practices such as channelization eliminate turbulence produced by riffles, meanders, and debris snags. Although plant photosynthesis produces oxygen by day, it is consumed by the reverse process of respiration at night. Oxygen is also consumed by bacteria that decay organic matter, so it can be easily depleted unless it is replenished from the air. Sources of organic matter include poorly treated waste water, livestock waste, sewage bypasses, and dead plants and algae. Dissolved oxygen criteria are established in the Ohio Water Quality Standards to protect aquatic life. The minimum and average limits are tiered values and linked to use designations (Administrative Code 3745-1-07, Table 7-1).

Ammonia

Ammonia enters streams as a component of fertilizer and manure run-off and wastewater effluent. Ammonia gas (NH_3) readily dissolves in water to form the compound ammonium hydroxide (NH_4OH). In aquatic ecosystems an equilibrium is established as ammonia shifts from a gas to undissociated ammonium hydroxide to the dissociated ammonium ion (NH_4^{+1}). Under normal conditions (neutral pH 7 and 25°C) almost none of the total ammonia is present as gas, only 0.55% is present as ammonium hydroxide, and the rest is ammonium ion. Alkaline pH shifts the equation toward gaseous ammonia production, so the amount of ammonium hydroxide increases. This is important because while the ammonium ion is almost harmless to aquatic life, ammonium hydroxide is very toxic and can reduce growth and reproduction or cause mortality.

The concentration of ammonia in raw sewage is high, sometimes as much as 20-30 mg/l. Treatment to remove ammonia involves gaseous stripping to the atmosphere, biological nitrification and de-nitrification, and assimilation into plant and animal biomass. The nitrification process requires a long detention time and aerobic conditions like that provided in extended aeration wastewater treatment plants. Under these conditions, bacteria first convert ammonia to nitrite and then to nitrate. Nitrate can then be reduced by bacteria through the de-nitrification process and nitrogen gas and carbon dioxide are produced as by-products.

Ammonia criteria are established in the Ohio Water Quality Standards to protect aquatic life. The maximum and average limits are tiered values based on sample pH and temperature and linked to use designations (Administrative Code 3745-1-07, Tables 7-2 through 7-8).

Metals

Metals can be toxic to aquatic life and hazardous to human health. Although they are naturally occurring elements many are extensively used in manufacturing and are by-products of human activity. Certain metals like copper and zinc are essential in the human diet, but excessive levels are usually detrimental. Lead and mercury are of particular concern because they often trigger fish consumption advisories. Mercury is used in the production of chlorine gas and caustic soda and in the manufacture of batteries and fluorescent light bulbs. In the environment it forms inorganic salts, but bacteria convert these to methyl-mercury and this organic form builds up in the tissues of fish. Extended exposure can damage the brain, kidneys, and developing fetus. The Ohio Department of Health (ODH) issued a statewide fish consumption advisory in 1997 advising women of child bearing age and children six and under not to eat more than one meal per week of any species of fish from waters of the state because of mercury. Lead is used in batteries, pipes, and paints and is emitted from burning fossil fuels. It affects the central nervous system and damages the kidneys and reproductive system. Copper is mined extensively and used to manufacture wire, sheet metal, and pipes. Ingesting large amounts can cause liver and kidney damage. Zinc is a by-product of mining, steel production, and coal burning and used in alloys such as brass and bronze. Ingesting large amounts can cause stomach cramps, nausea, and vomiting.

Metals criteria are established in the Ohio Water Quality Standards to protect human health, wildlife, and aquatic life. Three levels of aquatic life standards are established (Administrative Code 3745-1-07, Table 7-1) and limits for some elements are based on water hardness (Administrative Code 3745-1-07, Table 7-9). Human health and wildlife standards are linked to either the Lake Erie (Administrative Code 3745-1-33, Table 33-2) or Ohio River (Administrative Code 3745-1-34, Table 34-1) drainage basins. The drainage basins also have limits for additional elements not established elsewhere that are identified as Tier I and Tier II values.

Bacteria

High concentrations of either fecal coliform bacteria or *Escherichia coli* (*E. coli*) in a lake or stream may indicate contamination with human pathogens. People can be exposed to contaminated water while wading, swimming, and fishing. Fecal coliform bacteria are relatively harmless in most cases, but their presence indicates that the water has been contaminated with feces from a warm-blooded animal. Although intestinal organisms eventually die off outside the body, some will remain virulent for a period of time and may infect humans. This is especially a problem if the feces contained pathogens or disease producing bacteria and viruses. Reactions to exposure can range from an isolated illness such as skin rash, sore throat, or ear infection to a more serious wide spread epidemic. Some types of bacteria that are a concern include *Escherichia*, which cause diarrhea and urinary tract infections, *Salmonella*, which cause typhoid fever and gastroenteritis (food poisoning), and *Shigella*, which cause severe gastroenteritis or bacterial dysentery. Potential waterborne viruses that are a concern include polio, hepatitis A, and encephalitis. Disease causing parasitic microorganisms such as cryptosporidium and giardia are also a concern.

Since fecal coliform bacteria are associated with warm-blooded animals, there are both human and animal sources. Human sources, including effluent from sewage treatment plants or discharges by on-lot wastewater treatment systems, are a more continuous problem. Bacterial contamination from combined sewer overflows are associated with wet weather events. Animal sources are usually more intermittent and are also associated with rainfall, except when domestic livestock have access to the water. Large livestock farms store manure in holding lagoons and this creates the potential for an accidental spill. Liquid manure applied as fertilizer is a runoff problem if not managed properly as it may seep into field tiles or travel overland during precipitation events.

Bacteria criteria for the recreational use are established in the Ohio Water Quality Standards to protect human health. The maximum and average limits are tiered values and linked to use designation, but only apply during the May 1-October 15 recreation season (Administrative Code 3745-1-07, Table 7-13). The standards also state that streams must be free of any public health nuisance associated with raw or poorly treated sewage during dry weather conditions (Administrative Code 3745-1-04, Part F).

Sediment Contamination

Chemical quality of sediment is a concern because many pollutants bind strongly to soil particles and are persistent in the environment. Some of these compounds accumulate in the aquatic food chain and trigger fish consumption advisories, but others are simply a contact hazard because they can cause skin irritation, skin cancer and tumors. The physical and chemical nature of sediment is determined by local geology, land use, and contribution from manmade sources. As some materials enter the water column they are attracted to the surface electrical charges associated with suspended silt and clay particles. Others simply sink to the bottom due to their high specific gravity. Sediment layers form as suspended particles settle, accumulate, and combine with other organic and inorganic materials. Sediment is the most physically, chemically, and biologically reactive at the water interface because this is where it is affected by sunlight, current, wave action, and benthic organisms. Assessment of the chemical nature of this layer can be used to predict ecological impact.

Sediment chemistry results are evaluated by Ohio EPA using a dual approach, first by ranking relative concentrations based on a system developed by Ohio EPA (1996) and then by determining the potential for toxicity based on guidelines developed by MacDonald et al (2000). The Ohio EPA system was derived from samples collected at ecoregional reference sites. Classes are grouped in ranges that are based on the median analytical value (non-elevated) plus 1 (slightly elevated), 2 (elevated), 4 (highly elevated), and 8 (extremely elevated) inter-quartile values. The MacDonald guidelines are consensus based using previously developed values. The system predicts that sediments below the threshold effect concentration (TEC) are absent of toxicity and those greater than the probable effect concentration (PEC) are toxic.

Sediment samples collected by the Ohio EPA are measured for a number of physical and chemical properties. Physical attributes included % particle size distribution (sand $\geq 60 \mu$, silt 5-59 μ , clay $\leq 4 \mu$), % solids, and % organic carbon. Due to the dynamics of flowing water, most natural streams in Central Ohio do not contain a lot of fine grained sediment and samples often consist mostly of sand. Fine grained sediments are deposited in flood plains of natural streams during periods of high flow. This scenario changes if the stream is impounded by a dam or channelized. Chemical attributes included metals, volatile and semi-volatile organic compounds, pesticides, and poly-chlorinated biphenyls (PCBs).