

Unnamed Tributary to Chagrin River downstream of Quail Hollow WWTP
September 10, 2009

Collection Distance: 0.15 km
Collection Method: Longline Electroshocking
Drainage Area: 0.8 miles²
River Mile: 0.10

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Rhinichthys atratulus</i> Western blacknose dace	139	0.000	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	562	0.000	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	1	0.000	--	0	--
Totals	<u>702</u>	<u>0.000</u>		<u>0</u>	

*DELT anomalies were observed on 0.0 of the fish collected.
 Index of Biotic Integrity (IBI) = 26 (Poor)

Wiley Creek downstream of Jackson Valley WWTP
September 18, 2009

Collection Distance: 0.15 km
Collection Method: Longline Electroshocking
Drainage Area: 4.0 miles²
River Mile: 1.00

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Catostomus commersonii</i> Common white sucker	66	0.000	Highly Tolerant	0	--
<i>Rhinichthys atratulus</i> Western blacknose dace	110	0.000	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	213	0.000	Highly Tolerant	0	--
<i>Pimephales promelas</i> Northern fathead minnow	1	0.000	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	15	0.000	--	0	--
<i>Lepomis gibbosus</i> Pumpkinseed sunfish	2	0.000	Moderately Tolerant	0	--
Totals	<u>407</u>	<u>0.000</u>		<u>0</u>	

*DELT anomalies were observed on 0.0 of the fish collected.
Index of Biotic Integrity (IBI) = 24 (Poor)

Pepper-Luce Creek downstream of Creekside WWTP
September 17, 2009

Collection Distance: 0.15 km
Collection Method: Longline Electroshocking
Drainage Area: 7.1 miles²
River Mile: 3.30

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Catostomus commersonii</i> Common white sucker	145	0.000	Highly Tolerant	0	--
<i>Carassius auratus</i> Goldfish	1	0.000	Highly Tolerant	0	--
<i>Rhinichthys atratulus</i> Western blacknose dace	156	0.000	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	77	0.000	Highly Tolerant	1	Lesion
<i>Pimephales promelas</i> Northern fathead minnow	54	0.000	Highly Tolerant	0	--
<i>Pimephales notatus</i> Bluntnose minnow	85	0.000	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	1189	0.000	--	0	--
<i>Ictalurus natalis</i> Yellow bullhead	1	0.000	Highly Tolerant	0	--
<i>Lepomis gibbosus</i> Pumpkinseed sunfish	2	0.000	Moderately Tolerant	0	--
Totals	<u>1710</u>	<u>0.000</u>		<u>1</u>	

*DELT anomalies were observed on 0.1 of the fish collected.
Index of Biotic Integrity (IBI) = 34 (Fair)

Unnamed Tributary to Pepper-Luce Creek downstream of Woodland Glen WWTP
 September 17, 2009

Collection Distance: 0.15 km
Collection Method: Longline Electroshocking
Drainage Area: 0.5 miles²
River Mile: 0.30

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Rhinichthys atratulus</i> Western blacknose dace	10	0.000	Highly Tolerant	0	--
<i>Micropterus salmoides</i> Largemouth bass	1	0.000	--	0	--
<i>Lepomis gibbosus</i> Pumpkinseed sunfish	1	0.000	Moderately Tolerant	0	--
Totals	<u>12</u>	<u>0.000</u>		<u>0</u>	

*DELT anomalies were observed on 0.0 of the fish collected.
 Index of Biotic Integrity (IBI) = 14 (Very Poor)

Chagrin River upstream of Wiley Creek
August 14, 2009

Collection Distance: 0.2 km
Collection Method: Longline Electroshocking
Drainage Area: 120 miles²
River Mile: 26.70

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Hypentelium nigricans</i> Northern hog sucker	199	7.634	Moderately Intolerant	0	--
<i>Catostomus commersonii</i> Common white sucker	26	1.000	Highly Tolerant	0	--
<i>Cyprinus carpio</i> Common carp	3	6.500	Highly Tolerant	0	--
<i>Rhinichthys atratulus</i> Western blacknose dace	2	0.005	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	9	0.022	Highly Tolerant	0	--
<i>Notropis cornutus</i> Common shiner	30	0.378	--	0	--
<i>Notropis stramineus</i> Sand shiner	15	0.046	Moderately Intolerant	0	--
<i>Ericymba buccata</i> Silverjaw minnow	11	0.020	--	0	--
<i>Pimephales notatus</i> Bluntnose minnow	20	0.060	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	34	0.250	--	0	--
<i>Ambloplites rupestris</i> Northern rockbass	8	0.492	--	0	--
<i>Micropterus dolomieu</i> Smallmouth bass	36	3.510	Moderately Intolerant	0	--
<i>Micropterus salmoides</i> Largemouth bass	2	0.015	--	0	--
<i>Lepomis cyanellus</i> Green sunfish	4	0.083	Highly Tolerant	0	--
<i>HYBRID</i> Bluegill X Pumpkinseed	4	0.043	--	0	--

Chagrin River downstream of Pepper-Luce Creek
August 14, 2009

<i>HYBRID</i> Green SF X Bluegill SF	1	0.010	--	0	
<i>HYBRID</i> Green SF X Pumpkinseed	1	0.018	--	0	
<i>Etheostoma blenniodes</i> Greenside darter	18	0.075	Moderately Intolerant	0	--
<i>Etheostoma caeruleum</i> Rainbow darter	23	0.080	Moderately Intolerant	0	--
<i>Etheostoma nigrum</i> Johnny darter	2	0.004	--	0	--
<i>Nocomis micropogon</i> River Chub	33	0.900	Intolerant	0	
<i>Notropis rubellus</i> Rosyface Shiner	5	0.010	Intolerant	0	
<i>Noturus flavus</i> Stonecat Madtom	2	0.030	Intolerant	0	
Totals	<u>488</u>	<u>21.185</u>		<u>0</u>	

*DELT anomalies were observed on 0.00 % of the fish collected.
 Index of Biotic Integrity (IBI) = 46 (Very Good)
 Modified Index of Well-Being (MIwb) 8.6 (Good)
 Shannon Diversity Index, wt. 2.256
 Shannon Diversity Index, no. 1.668
 N 627
 B 20.17

Chagrin River downstream of Pepper-Luce Creek
August 14, 2009

Collection Distance: 0.2 km
Collection Method: Longline Electroshocking
Drainage Area: 153 miles²
River Mile: 22.00

<u>Species</u>	<u>Number</u>	<u>Weight (kg)</u>	<u>Pollution Tolerance</u>	<u>#</u>	<u>DELT Anomalies Description</u>
<i>Hypentelium nigricans</i> Northern hog sucker	185	5.112	Moderately Intolerant	1	Lesion
<i>Catostomus commersonii</i> Common white sucker	31	0.167	Highly Tolerant	0	--
<i>Semotilus atromaculatus</i> Creek chub	10	0.052	Highly Tolerant	0	--
<i>Notropis cornutus</i> Common shiner	64	0.520	--	0	--
<i>Cyprinella spiloptera</i> Spotfin shiner	2	0.020	--	0	--
<i>Notropis stramineus</i> Sand shiner	34	0.100	Moderately Intolerant	0	--
<i>Ericymba buccata</i> Silverjaw minnow	76	0.230	--	0	--
<i>Pimephales notatus</i> Bluntnose minnow	5	0.024	Highly Tolerant	0	--
<i>Campostoma anomalum</i> Central stoneroller minnow	180	0.900	--	0	--
<i>Micropterus dolomieu</i> Smallmouth bass	54	0.775	Moderately Intolerant	0	--
<i>Etheostoma blenniodes</i> Greenside darter	51	0.300	Moderately Intolerant	0	--
<i>Etheostoma caeruleum</i> Rainbow darter	25	0.052	Moderately Intolerant	0	--
<i>Etheostoma nigrum</i> Johnny darter	1	0.002	--	0	--
<i>Nocomis micropogon</i> River Chub	81	2.060	Intolerant	0	
<i>Notropis rubellus</i> Rosyface Shiner	23	0.062	Intolerant	0	

Chagrin River downstream of Pepper-Luce Creek
August 14, 2009

<i>Noturus flavus</i> Stonecat Madtom	3	0.122	Intolerant	1	Deformed eye
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Totals	<u>825</u>	<u>10.498</u>		<u>2</u>	

*DELT anomalies were observed on 0.24 % of the fish collected.

Index of Biotic Integrity (IBI) =	44		(Good)	
Modified Index of Well-Being (MIwb)	8.8		(Good)	
Shannon Diversity Index, wt.	2.252			
Shannon Diversity Index, no.	1.679			
N	1169			
B	15.38			