Mill Creek Upstream of Halburton Road 6/29/2011

River Mile: 11.85

Collection Method: Longline Electroshocking

Drainage Area: 0.7 miles²
Collection Distance: 0.15 km

<u>Species</u>	<u>Number</u>	Pollution Tolerance	#	DELT Anomalies Description
Carassius auratus Goldfish	2	Highly Tolerant -	0	
Totals	2		0	
*DELT anomalies were observed Index of Biotic Integrity (IBI) =	d on 0.0 12	of the fish collected. (Very Poor)		

Mill Creek Upstream Section of Highland Park Golf Course 6/29/2011

River Mile: 11.52

Collection Method: Longline Electroshocking

Drainage Area: 1.3 miles² Collection Distance: 0.15 km

Species	Number	Pollution Tolerance	#	DELT Anomalies Description
Carassius auratus Goldfish	1	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	4	Highly Tolerant	0	
Totals	5	=	0	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 12	of the fish collected. (Very Poor)		

Index of Biotic Integrity (IBI) = 12 (Very Poor)

Mill Creek Upstream Section of Highland Park Golf Course

8/17/2011

River Mile: 11.52

Collection Method: Longline Electroshocking

Drainage Area: 1.3 miles²
Collection Distance: 0.15 km

<u>Species</u>	Number	Pollution Tolerance	_#	DELT Anomalies Description
Carassius auratus Goldfish	19	Highly Tolerant	0	<u>:</u> -
Semotilus atromaculatus Creek chub	10	Highly Tolerant -	0	
Totals	29	=		
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 18	of the fish collected. (Poor)		

Mill Creek Downstream Section of Highland Park Golf Course 6/29/2011

River Mile: 10.70

Collection Method: Longline Electroshocking

Drainage Area: 1.8 miles²
Collection Distance: 0.15 km

<u>Species</u>	Number	Pollution Tolerance	_#	DELT Anomalies Description
Rhinicthys atratulus Western blacknose dace	9	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	70	Highly Tolerant	0	
Totals	79	=		
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 20	of the fish collected. (Poor)		

Mill Creek Downstream Section of Highland Park Golf Course

8/17/2011

River Mile: 10.70

Collection Method: Longline Electroshocking

Drainage Area: 1.8 miles² Collection Distance: 0.15 km

Species Carassius auratus Goldfish	Number 36	Pollution <u>Tolerance</u> Highly Tolerant	# 0	DELT Anomalies Description
Rhinicthys atratulus Western blacknose dace	67	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	464	Highly Tolerant	0	
Totals	567	=	0	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 20	of the fish collected. (Poor)		

Mill Creek at Northfield Road 6/29/2011

River Mile: 10.13

Collection Method: Longline Electroshocking

Drainage Area: 2.6 miles² Collection Distance: 0.15 km

<u>Species</u>	Number	Pollution <u>Tolerance</u>	#	DELT Anomalies Description
Rhinicthys atratulus Western blacknose dace	28	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	112	Highly Tolerant -	0	
Totals	140	=	0	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 20	of the fish collected. (Poor)		

Mill Creek at Northfield Road 8/12/2011

River Mile: 10.13

Collection Method: Longline Electroshocking

Drainage Area: 2.6 miles² Collection Distance: 0.15 km

Species Carassius auratus Goldfish	Number 1	Pollution Tolerance Highly Tolerant	# 0	DELT Anomalies Description
Rhinicthys atratulus Western blacknose dace	25	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	155	Highly Tolerant	0	
Lepomis cyanellus Green sunfish	2	Highly Tolerant	0	
Totals	183	=	0	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 20	of the fish collected. (Poor)		

Mill Creek Upstream of South Miles Road 6/28/2011

River Mile: 8.30

Collection Method: Longline Electroshocking

Drainage Area: 3.9 miles² Collection Distance: 0.15 km

Number	Pollution	ш	DELT Anomalies
			Description
114		U	
	Tolerani		
63	Highly	0	
00	• •	Ū	
1	Highly	0	
	Tolerant		
4	Highly	0	
	Tolerant		
100		0	
102			
0.0	of the fish collected		
	182	Number 114 Highly Tolerant 63 Highly Tolerant 1 Highly Tolerant 4 Highly Tolerant 4 Highly Tolerant	NumberTolerance#114Highly Tolerant063Highly Tolerant01Highly Tolerant04Highly

*DELT anomalies were observed on 0.0 Index of Biotic Integrity (IBI) =

of the fish collected.

24 (Poor)

Mill Creek Upstream of South Miles Road

8/12/2011

River Mile: 8.30

Collection Method: Longline Electroshocking

Drainage Area: 3.9 miles²
Collection Distance: 0.15 km

Species	Number	Pollution Tolerance	#	DELT Anomalies Description
Rhinicthys atratulus Western blacknose dace	184	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	237	Highly Tolerant	0	
Lepomis cyanellus Green sunfish	6	Highly Tolerant	0	
Totals	427		0	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =		of the fish collected. (Poor)		

Index of Biotic Integrity (IBI) = 20 (Poor)

Mill Creek at Rex Avenue

6/27/2011

River Mile: 6.80

Collection Method: Longline Electroshocking

Drainage Area: 4.4 miles² Collection Distance: 0.15 km

Species_	Number	Pollution Tolerance	_#	DELT Anomalies Description
Rhinicthys atratulus Western blacknose dace	319	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	343	Highly Tolerant	0	
Totals	662	=	0	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 22	of the fish collected. (Poor)		

Mill Creek at Rex Avenue

8/12/2011

River Mile: 6.80

Collection Method: Longline Electroshocking

Drainage Area: 4.4 miles²
Collection Distance: 0.15 km

<u>Species</u>	Number	Pollution <u>Tolerance</u>	#	DELT Anomalies Description
Rhinicthys atratulus Western blacknose dace	261	Highly Tolerant	0	<u></u>
Semotilus atromaculatus Creek chub	237	Highly Tolerant	0	
Totals	498	=	0	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 22	of the fish collected. (Poor)		

Mill Creek at Broadway Avenue 6/27/2011

River Mile: 3.15

Collection Method: Longline Electroshocking

Drainage Area: 14.6 miles² Collection Distance: 0.15 km

Species Notemigonus crysoleucas Golden shiner	Number 1	Pollution Tolerance Highly Tolerant	# 0	DELT Anomalies Description
Rhinicthys atratulus Western blacknose dace	140	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	160	Highly Tolerant	0	
Pimephales promelas Northern fathead minnow	6	Highly Tolerant	0	
Totals	307	=	0	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 24	of the fish collected. (Poor)		

Mill Creek at Broadway Avenue

8/11/2011

River Mile: 3.15

Collection Method: Longline Electroshocking

Drainage Area: 14.6 miles² Collection Distance: 0.15 km

0000		• • • • • • • • • • • • • • • • • • • •		
Species Phinisthy a stratily a	Number		#	DELT Anomalies Description
Rhinicthys atratulus Western blacknose dace	160	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	127	Highly Tolerant	0	
Pimephales promelas Northern fathead minnow	2	Highly Tolerant -	0	
Totals	289	=	0	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 22	of the fish collected.		

Index of Biotic Integrity (IBI) = 22 (Poor)

Mill Creek Downstream of Mill Creek Falls 6/27/2011

River Mile: 2.75

Collection Method: Longline Electroshocking

Drainage Area: 14.6 miles² Collection Distance: 0.15 km

Conection E	ristarice.	U.IJ KI			DELT
<u>Species</u>	Number		Pollution Tolerance	#	Anomalies <u>Description</u>
Catostomus commersonii Common white sucker	42		Highly Tolerant	1	Lesion
Notemigonus crysoleucas Golden shiner	1		Highly Tolerant	0	
Rhinicthys atratulus Western blacknose dace	47		Highly Tolerant	0	
Semotilus atromaculatus Creek chub	129		Highly Tolerant	0	
Notropis cornutus Common shiner	1			0	
Pimephales promelas Northern fathead minnow	4		Highly Tolerant	0	
Pimephales notatus Bluntnose minnow	1		Highly Tolerant	0	
Campostoma anomalum Central stoneroller minnow	270			1	Deformity
Totals	495	=		2	
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.4 32	of the fish (Fair)	collected.		

Mill Creek Downstream of Mill Creek Falls 8/11/2011

River Mile: 2.75

Collection Method: Longline Electroshocking

Drainage Area: 14.6 miles² Collection Distance: 0.15 km

				DELT
		Pollution		Anomalies
<u>Species</u> Hypentelium nigricans Northern hog sucker	Number 1	<u>Tolerance</u> Moderately Intolerant	# 0	Description
Catostomus commersonii Common white sucker	16	Highly Tolerant	0	
Rhinicthys atratulus Western blacknose dace	28	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	135	Highly Tolerant	0	
Pimephales promelas Northern fathead minnow	2	Highly Tolerant	0	
Pimephales notatus Bluntnose minnow	2	Highly Tolerant	0	
Campostoma anomalum Central stoneroller minnow	218		0	
Lepomis cyanellus Green sunfish	2	Highly Tolerant	0	
Totals	404	- -		
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.0 30	of the fish collected. (Fair)		

Mill Creek Upstream of Warner Road Tributary 6/21/2011

River Mile: 0.70

Collection Method: Longline Electroshocking

Drainage Area: 18.2 miles² Collection Distance: 0.15 km

Collection	ristance.	U.IS KIII		
Species Hypentelium nigricans Northern hog sucker	Number 2	Pollution <u>Tolerance</u> Moderately Intolerant	# 0	DELT Anomalies Description
Catostomus commersonii Common white sucker	7	Highly Tolerant	0	
Rhinicthys atratulus Western blacknose dace	141	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	56	Highly Tolerant	0	
Notropis cornutus Common shiner	11		0	
Cyprinella spiloptera Spotfin shiner	1		0	
Notropis stramineus Sand shiner	15	Moderately Intolerant	0	
Pimephales promelas Northern fathead minnow	2	Highly Tolerant	0	
Pimephales notatus Bluntnose minnow	11	Highly Tolerant	0	
Campostoma anomalum Central stoneroller minnow	74		0	
Ictalurus nebulosus Brown bullhead	1	Highly Tolerant	1	Multiple
Lepomis cyanellus Green sunfish	1	Highly Tolerant	0	
Lepomis macrochirus Northern bluegill sunfish	11	Moderately Tolerant	0	
Totals	333	=		
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.3 34	of the fish collected. (Fair)		

Mill Creek Upstream of Warner Road Tributary 8/11/2011

River Mile: 0.70

Collection Method: Longline Electroshocking

Drainage Area: 18.2 miles² Collection Distance: 0.15 km

Collec	tion Distance: 0.1	o KM		
<u>Species</u>	<u>Number</u>	Pollution <u>Tolerance</u>	#	DELT Anomalies Description
Moxostoma macrolepidotum Shorthead redhorse	1	Moderately Intolerant	0	
Hypentelium nigricans Northern hog sucker	2	Moderately Intolerant	0	
Catostomus commersonii Common white sucker	48	Highly Tolerant	0	
Carassius auratus Goldfish	1	Highly Tolerant	0	
Rhinicthys atratulus Western blacknose dace	90	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	189	Highly Tolerant	0	
Notropis cornutus Common shiner	57		0	
Cyprinella spiloptera Spotfin shiner	1		0	
Notropis stramineus Sand shiner	33	Moderately Intolerant	0	
Ericymba buccata Silverjaw minnow	2		0	
Pimephales promelas Northern fathead minnow	3	Highly Tolerant	0	
Pimephales notatus Bluntnose minnow	32	Highly Tolerant	0	
Campostoma anomalum Central stoneroller minnow	286		0	
Ictalurus natalis Yellow bullhead	37	Highly Tolerant	1	Eroded barbel
Micropterus dolomieui Smallmouth bass	3	Moderately Intolerant	0	

Mill Creek Upstream of Warner Road Tributary 8/11/2011

Riv	ver Mile:	0.70		
Lepomis gulosus Warmouth sunfish	1		0	
Lepomis cyanellus Green sunfish	18	Highly Tolerant	0	
Totals	804	=		
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.1 38	of the fish collected. (Marginally Good)		

Mill Creek Upstream of Canal Road 6/17/2011

River Mile: 0.12

Collection Method: Longline Electroshocking

Drainage Area: 19.5 miles² Collection Distance: 0.15 km

Con	ection Distance:	0.15 KM		
Species Hypentelium nigricans Northern hog sucker	<u>Number</u> 4	Pollution <u>Tolerance</u> Moderately Intolerant	# 0	DELT Anomalies Description
Catostomus commersonii Common white sucker	41	Highly Tolerant	0	
Rhinicthys atratulus Western blacknose dace	13	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	67	Highly Tolerant	0	
Notropis cornutus Common shiner	21		2	Lesions
Cyprinella spiloptera Spotfin shiner	1		0	
Notropis stramineus Sand shiner	83	Moderately Intolerant	0	
Ericymba buccata Silverjaw minnow	1		0	
Pimephales promelas Northern fathead minnow	2	Highly Tolerant	0	
Pimephales notatus Bluntnose minnow	88	Highly Tolerant	0	
Campostoma anomalum Central stoneroller minnow	237		0	
<i>Ictalurus natalis</i> Yellow bullhead	5	Highly Tolerant	0	
Ictalurus nebulosus Brown bullhead	3	Highly Tolerant	2	Lesion & multiple
Ambloplites rupestris Northern rockbass	1		0	
Micropterus dolomieui Smallmouth bass	1	Moderately Intolerant	0	

Mill Creek Upstream of Canal Road 6/17/2011

	0, 1	1/2011		
R	iver Mile:	0.12		
Lepomis cyanellus Green sunfish	6	Highly Tolerant	0	
Lepomis macrochirus Northern bluegill sunfish	2	Moderately Tolerant	0	
Ethestoma nigrum Johnny darter	2		0	
HYBRID Bluegill X Pumpkinseed	1	 -	0	
Totals	579	=	_4	
*DELT anomalies were observed or Index of Biotic Integrity (IBI) =	n 0.7 34	of the fish collected. (Fair)		

Mill Creek Upstream of Canal Road 8/9/2011

River Mile: 0.12

Collection Method: Longline Electroshocking

Drainage Area: 19.5 miles² Collection Distance: 0.15 km

Collect	ion Distance: 0.13	o KM		
<u>Species</u> Hypentelium nigricans Northern hog sucker	<u>Number</u> 4	Pollution <u>Tolerance</u> Moderately Intolerant	# 0	DELT Anomalies Description
Catostomus commersonii Common white sucker	44	Highly Tolerant	0	
Rhinicthys atratulus Western blacknose dace	7	Highly Tolerant	0	
Semotilus atromaculatus Creek chub	32	Highly Tolerant	0	
Notropis cornutus Common shiner	16		1	Lesion
Cyprinella spiloptera Spotfin shiner	2		0	
Notropis stramineus Sand shiner	44	Moderately Intolerant	0	
Ericymba buccata Silverjaw minnow	1		0	
Pimephales notatus Bluntnose minnow	13	Highly Tolerant	0	
Campostoma anomalum Central stoneroller minnow	142		0	
Ictalurus natalis Yellow bullhead	18	Highly Tolerant	0	
Micropterus dolomieui Smallmouth bass	3	Moderately Intolerant	0	
Micropterus salmoides Largemouth bass	1		0	
Lepomis cyanellus Green sunfish	6	Highly Tolerant	0	
Ethestoma nigrum Johnny darter	1		0	

Mill Creek Upstream of Canal Road 8/9/2011

Ri	ver Mile:	0.12		
Neogobius melanostomus Round goby	1		0	
		_		
Totals	335	=		
*DELT anomalies were observed on Index of Biotic Integrity (IBI) =	0.3 38	of the fish collected. (Marginally Good)		