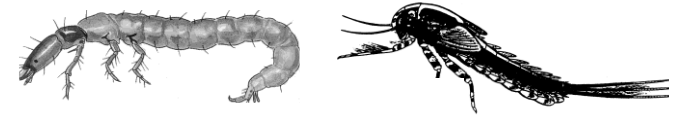


# Adopt-a-Stream

## River Round April 2012 Data and Trends



The Huron River Watershed Council holds two full benthic macroinvertebrate collections per year, during which volunteers visit river and creek across the watershed and collect a sample of the critters that live in the stream and on the streambed.

“Benthic macroinvertebrates” are another word for stream insects, crustaceans, worms, and mollusks. The word “benthic” refers to the bottom of a lake or stream, the word “macro” means they are large enough to see with the naked eye, and “invertebrates” are creatures without backbones.

There are three categories of benthic macroinvertebrates that are particularly interesting. These categories, or “metrics”, are calculated by the number of families in a sample. A “family” is a taxonomic term that indicates a type of macroinvertebrate (for example, it is possible to find about 10 different mayfly families or 5 different stonefly families in our area of Michigan). In general, the more families found, the healthier the stream.

**All insects:** This metric includes all of the insect families in the sample, and serves as a general indicator of the stream health.

**EPT:** Standing for Ephemeroptera-Plecoptera-Trichoptera, this metric includes all of the mayfly, stonefly, and caddisfly families in the sample. These insects are sensitive to water temperature and oxygen availability. Stagnant or warm streams will not have many of these families.

**Sensitive:** There are a small handful of insect families in the Huron River watershed that are particularly sensitive to organic pollution. In other words, this metric is calculated from insects that are not likely to be found in streams polluted with fertilizers or animal and human waste.

**Overall condition:** To determine the overall condition rating, HRWC uses an integrative model that compares a monitoring site to all of HRWC’s other monitoring sites in the Huron watershed. This involves insect data, habitat data, water temperature, land cover, and stream size. Streams can be ranked (from best to worst) as excellent, good, fair, and poor.

### \*\*\*\*\* WANT MORE DETAIL?

To learn of any particular site in more detail (i.e. more data, graphs), go to: <http://www.hrwc.org/publications/river-study-reports-plans/>

To see a map of all of the monitoring sites, go to: <http://www.imrivers.org/hrwc/>

All other inquiries, email [psteen@hrwc.org](mailto:psteen@hrwc.org)

Site Location	Site #	Current Site Condition	April 2012 Samples			Averages since 2009			Comments	Trend
			All Insects	EPT	Sensitive	All Insects	EPT	Sensitive		
Arms Creek: Walsh Road	1	Fair	10	5	2	9.3	4.7	1.0	Spring samples have been declining recently, but this sample was slightly above average- a good sign.	—
Bancroft-Noles Drain: Lebo Park	89	Poor	5	1	0	5.0	1.0	0.5	This site is still quite new and does not have enough samples to detect a trend.	—
Boyden Creek: Delhi	2	Good	13	8	2	12.0	7.3	2.3	EPT and Sensitive families have significantly increased in the fall samples since sampling began in 1993, and spring EPT families have significantly increased as well.	↑
Chilson Creek: Brighton Road	45	Fair	No sample this season			10.5	4.5	0.5	There have been slight declines in all insect categories over time (1997-2011), but none of these changes are statistically significant.	—
Chilson Creek: Chilson Road	5	Good	13	7	3	15.3	8.0	3.7	There have been slight declines in all insect categories over time (1995-2012), but none of these changes are statistically significant.	—
Davis Creek: 11 Mile Road	81	Poor	No sample this season			7.0	3.0	1.0	No significant changes over time (1993-2010)	—
Davis Creek: Doane Road	6	Fair	7	4	1	8.7	4.0	0.7	No significant changes over time (1995-2011) in the fall samples. In the spring, sensitive families have been slowly disappearing from this site since monitoring began in 1994. This is a statistically significant change. We used to find 3-4 families, now it is more normal to find 0-1 families.	↓
Davis Creek: Pontiac Trail	7	Fair	7	5	1	9.0	5.0	1.0	This site is similar to the one above, Davis Creek at Doane Road. Sensitive families have been slowly disappearing since monitoring began in 1994.	↓

Site Location	Site #	Current Site Condition	April 2012 Samples			Averages since 2009			Comments	Trend
			All Insects	EPT	Sensitive	All Insects	EPT	Sensitive		
Davis Creek: Silver Lake	49	Good	19	10	3	14.7	7.7	2.0	No significant changes over time (1998-2011) in the fall samples. Up to this spring, the EPT and Sensitive metrics had significantly decreased since sampling started in 1998. The decline was not dramatic but it was been consistent. However, this spring sample was the best seen since 2006. Good news!	↓
Fleming Creek: Botanical Gardens	9	Good	14	7	1	12.3	5.8	1.3	No significant changes over time (1993-2012)	—
Fleming Creek: Galpin Road	84	Fair	No sample this season			11.0	6.0	1.0	We have detected a significant decrease of spring sensitive families here since 2004, and a decrease of fall total families.	↓
Fleming Creek: Geddes Road	11	Fair	11	5	1	9.0	3.8	0.5	No significant changes over time (1992-2012)	—
Fleming Creek: Warren Road	13	Excellent	No sample this season			17.0	9.0	4.0	This site remains one of the best that we visit, and since 1994 has improved significantly in both spring and fall collections.	↑
Greenock Creek: Rushton Road	8	Poor	7	3	1	5.7	2.3	0.3	This site has been consistently poor since 1996.	—
Hay Creek: M-36	15	Fair	12	6	3	12.3	6.0	2.3	Spring samples here have remained steady since 1996, but fall sample numbers have fallen significantly in that time.	↓
Honey Creek (N): Darwin Road	16	Good	13	7	2	15.0	8.0	1.7	This site has consistently been good since 1997; however, the past two spring samples have been slightly poorer than in past years. This site bears watching.	—
Honey Creek: Jackson Road	18	Fair	14	4	0	12.0	4.3	0.3	No significant changes over time (1993-2012)	—
Honey Creek: Wagner Road	20	Fair	9	5	3	10.5	4.8	2.3	No significant changes over time (1993-2012)	—

Site Location	Site #	Current Site Condition	April 2012 Samples			Averages since 2009			Comments	Trend
			All Insects	EPT	Sensitive	All Insects	EPT	Sensitive		
Horseshoe Creek: Barker Road	98	Unranked (new site)	10	5	1	10.0	5.0	1.0	This was the first time this site has been sampled in the spring.	?
Horseshoe Creek: Hamburg Road	21	Fair	12	4	1	11.3	4.7	0.3	No significant changes over time (1996-2012)	-
Hummocky Lick: M-36	63	Good	16	7	2	14.0	6.8	2.5	From 2000-2004, about 18 insect families were found in fall samples. Since 2005, it is more usual to find about 13. This is a statistically significant decrease. Last fall, the collection fared better with 16 families. Spring samples have remained steady.	↓
Huron Creek: Dexter-Pinckney Road	22	Good	14	6	2	13.3	6.7	2.7	No significant changes over time (1996-2012)	-
Huron River: Bell Road	62	Good	16	6	2	15.5	7.5	2.5	No significant changes over time (2000-2012)	-
Huron River: Commerce Road	47	Fair	No sample this season			15.5	7.5	1.0	Fall samples have significantly declined over time (1997-2012), which about 15 insect families found in the early years of sampling and only about 7 insect families found in recent years. Spring samples have been consistent.	↓
Huron River: Cross Street	24	Fair	11	6	1	11.0	6.0	0.5	Spring samples have significantly improved at this site since 1997, although fall samples have remained steady.	↑
Huron River: Flat Rock	23	Fair	9	5	1	8.0	3.3	0.3	This site had the best fall sample ever seen in 2011. Overall however, the site has significantly declined over time (1996-2012), especially during the spring samples.	↓
Huron River: Island Park	61	Good	15	8	2	14.5	8.5	2.5	Spring samples have been significantly improving at this site over time (2000-2012). Fall samples remain steady.	↑

Site Location	Site #	Current Site Condition	April 2012 Samples			Averages since 2009			Comments	Trend
			All Insects	EPT	Sensitive	All Insects	EPT	Sensitive		
Huron River: Proud Lake Rec Area	64	Fair	9	5	0	11.7	7.0	1.3	This spring sample was the worst seen since monitoring began (2001), but the overall trend is not statistically significant.	—
Huron River: US-23 (Liv. Co)	51	Fair	9	4	1	9.5	4.0	0.5	This site has declined in both the fall and the spring over time (1998-2012), but the changes are not statistically significant.	—
Huron River: White Lake Road	25	Excellent	20	10	5	20.0	9.3	5.0	This incredible site remains incredible; it has the highest diversity in the watershed despite it being such a small little river.	—
Huron River: Zeeb Road	26	Good	20	11	3	17.0	10.3	4.7	No significant changes over time (1996-2011)	—
Livermore Creek: Doyle Road	93	Unranked (new site)	16	6	1	16.0	6.0	1.0	This was the first time this site has been sampled in the spring.	?
Malletts Creek: Chalmers Drive	27	Poor	6	1	0	5.5	1.0	0.0	No significant changes over time (1993-2011)	—
Mann Creek: VanAmberg Road	30	Excellent	15	10	3	13.3	8.0	3.3	Fall and spring samples have increased significantly over time (1995-2012).	↑
Mill Creek: Fletcher Road	31	Fair	No sample this season			10.0	5.0	1.5	No significant changes over time (1993-2011)	—
Mill Creek: Ivey Road	32	Good	16	8	3	15.0	8.3	2.3	No significant changes over time (1994-2012)	—
Mill Creek: Jackson Road	33	Fair	No sample this season			8.5	3.5	1.0	No significant changes over time (1997-2011)	—
Mill Creek: Klinger Road	57	Fair	No sample this season			9.5	5.0	2.5	Significantly more sensitive families have been found here over time (1999-2010).	↑

Site Location	Site #	Current Site Condition	April 2012 Samples			Averages since 2009			Comments	Trend
			All Insects	EPT	Sensitive	All Insects	EPT	Sensitive		
Mill Creek: Letts Cr at M-52	34	Fair/Good	16	6	2	14.5	6.0	2.0	Spring samples have slightly yet significantly increased here over time (1993-2012).	↑
Mill Creek: Manchester Road	55	Good	No sample this season			15.0	6.0	4.0	Fall samples have increased significantly over time (1999-2012) and spring samples have increased though not significantly over the same time period.	↑
Mill Creek: Parker Road	96	Unranked (new site)	5	2	1	5.0	2.0	1.0	This was the first time this site has been sampled in the spring.	?
Mill Creek: Shield Road	80	Fair	13	7	3	12.5	7.5	2.0	Spring samples have increased here over time (2002-2012). Fall samples have remained steady.	↑
Mill Creek: Warrior Park	79	Fair	14	8	3	12.0	7.3	2.3	No significant changes over time (2003-2012)	-
Millers Creek: Glazier Way	35	Poor	9	1	0	6.0	1.0	0.0	We have been seeing better samples for this creek since work was done in the headwaters in spring 2009. The increase in families is not statistically significant.	-
Norton Creek: West Maple Road	65	Poor	7	0	0	8.7	1.0	0.0	No significant changes over time (2000-2012)	-
Pettibone Creek: Commerce Road	67	Fair	13	5	0	11.3	5.0	0.0	No significant changes over time (2001-2012)	-
Pettibone Creek: Livingston Road	68	Good	9	3	1	10.0	4.0	0.7	No significant changes over time (2001-2012)	-
Port Creek: Armstrong Road	60	Poor	No sample this season			6.0	1.0	1.0	No significant changes over time (2000-2011)	-
Portage Creek: Dexter-Townhall Road	37	Good	13	9	1	14.0	8.0	1.5	There have been declines in the spring sensitive families since 1996 (5 ->1); however, fall samples have remained steady. The site is still quite healthy although should be watched carefully.	↓

Site Location	Site #	Current Site Condition	April 2012 Samples			Averages since 2009			Comments	Trend
			All Insects	EPT	Sensitive	All Insects	EPT	Sensitive		
Portage Creek: Unadilla	58	Fair	No sample this season			5.0	2.0	0.0	No significant changes over time (1999-2011)	—
Portage Creek: Williamsville	92	Unranked (new site)	8	2	0	11.0	4.5	1.0	This is the second spring sample at this site.	?
South Ore Creek: Bauer Road	52	Fair	10	5	3	10.7	5.7	2.0	This site is significantly declining in fall samples (1998-2010), but spring samples are steady.	↓
South Ore Creek: Hamburg Road	40	Good	13	6	1	14.0	6.0	2.0	This site is significantly declining in fall EPT families (1995-2011), and declining slightly (and non-significantly) through in all of the other spring and fall parameters.	↓
South Ore Creek: Lake Ridge	50	Poor	5	1	0	6.0	1.7	0.0	No significant changes over time (1998-2012)	—
Swift Run: Shetland Drive	41	Poor	7	1	0	6.0	1.0	0.0	No significant changes over time (1992-2012)	—
Traver Creek: Broadway Avenue	42	Poor	5	2	0	5.7	2.0	0.0	No significant changes over time (1992-2012)	—
Woodruff Creek: Buno Road	46	Good	12	6	1	14.3	6.7	1.3	No significant changes over time (2002-2012)	—
Woodruff Creek: Maxfield Road	44	Fair	No sample this season			8.0	2.5	1.0	No significant changes over time (1996-2012)	—
Woods Creek: L Huron Metropark	14	Good	15	7	2	13.7	6.3	1.7	This spring sample and the past fall sample were the best ever collected. Long term trends show statistically significant increases. Great news!	↑

## Tertiary Sites:

**These sites are sampled on occasion, sometimes for a specific project, but are not used to determine overall watershed health:**

Site Location	Site #	Current Site Condition	April 2012 Samples			Averages since 2009			Comments	Trend
			All Insects	EPT	Sensitive	All Insects	EPT	Sensitive		
Boyden Creek: Golf Course	3	Fair	12	6	2	12.3	6.7	2.0	No significant changes over time (1995-2012)	-
Boyden Creek: Huron River Drive	4	Good	9	4	1	9.3	3.3	1.3	Fall samples have significantly increased in time (1992-2012), though spring samples have remained fairly	↑
Fleming Creek: Radrick Farms	12	Good	No sample this season			13.5	5.5	2.0	No significant changes over time (1994-2012)	-
Honey Creek: Pratt Road	19	Poor	No sample this season			10.0	3.5	1.0	No significant changes over time (1994-2011)	-
Malletts Creek: Main Street	56	Poor	No sample this season			5.5	1.0	0.0	Significant decreases in insect families (12-->6) since 2000.	↓
Malletts Creek: Near I-94	28	Poor	No sample this season			7.5	1.0	0.0	No significant changes over time (1992-2011)	-
Malletts Creek: Scheffler Road	29	Poor	No sample this season			4.0	1.0	0.0	No significant changes over time (1992-2011)	-
Millers Creek (Trib): Green Road	75	Unique	No sample this season			5.5	1.5	0.5	No significant changes over time (2002-2011)	-
Millers Creek (W Branch): Plymouth Rd	72	Poor	No sample this season			3.3	1.0	0.3	We have been seeing "good" samples (for this creek) since work was done in the headwaters in spring	↑
Traver Creek: Traver Road	101	Unranked (new site)	11	4	1	11.0	4.0	1.0	This was the first time this site has been sampled in the spring.	?
Traver Creek: Dhu Varren Road	43	Good	13	7	2	12.7	6.3	1.3	No significant changes over time (1992-2012)	-



Site Location	Site #	Current Site Condition	April 2012 Samples			Averages since 2009			Comments	Trend
			All Insects	EPT	Sensitive	All Insects	EPT	Sensitive		
Walker Creek: 8 Mile Road	82	Fair	No sample this season			11.5	6.0	1.0	Total insect families have been steadily and significantly declining since 2003 in fall samples. (22-->12).	↓
Willow Run: VanBuren Park	90	Unranked (new site)	No sample this season			6.0	1.0	0.0	This site has been sampled twice.	?
Woods Creek: Martinsville Road	87	Fair	No sample this season			14.5	5.0	1.0	No significant changes over time (2008-2011)	—
Woods Creek: Renton Road	88	Fair	16	6	3	13.7	5.3	2.0	No significant changes over time (2008-2012)	—