

Overall Condition: *Fair*

At this site there is a less than average amount of bugs found here, considering the stream's size. In the early 2000's, the bug population was quite a bit healthier. The stream banks, streambed, and streamside vegetation shows signs of erosion- this portion of the Huron River has very high flows days after storms. This can be a difficult site to sample.

Measuring Stream Quality

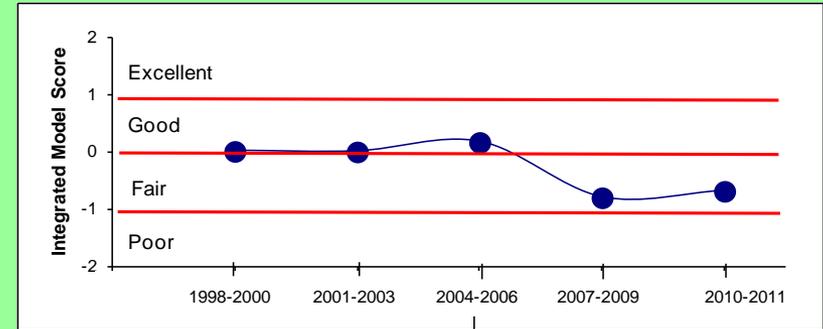
We use the bugs living in the creek to measure stream quality for two reasons. When the stream is rich in habitat variety it will have many diverse kinds of bugs (called families). Also, some bugs (called sensitive) can live only in good quality streams; they die in a poor quality stream. Any stream with sensitive families has the clean water and good habitat required by those bugs to survive.

Monitoring Data

These data come from HRWC volunteers who have monitored this site 27 times, starting in 1998. This includes Stonefly Search, River Roundup, Habitat, and Temperature events.

This site on Huron River is 70 feet wide and over two feet deep with occasional pools nearly four feet deep. In 2007 we found poor habitat here with a mucky bottom and many areas of bare banks. The water has a small amount of unknown pollutants and often warms to 79°F in the summer. The extent of development (15% impervious surface) creates urban runoff that is likely to be degrading the stream.

There is a less than average diversity of bugs given the large size of the river. In the spring we typically find 14 or 15 different families and one or two are sensitive families that require a good quality stream. In the fall 11 or 12 families are typically found, again with two sensitive ones. Stoneflies are very sensitive insects that are only found in clean water. Two kinds of "winter stoneflies" grow only in winter and are dormant the rest of the year. Stoneflies are only occasionally found at this site, which indicates a possible water quality problem, possibly caused by residual upstream pollution.



To determine the overall condition rating, HRWC uses an integrative model that compares this site to all of HRWC's other monitoring sites in the Huron watershed. The model uses insect, habitat, temperature, and stream size data.



Photo credit: HRWC

Huron River at US-23

Background Information

Site History

It is fun to paddle and fish along this part Huron River. A good several hour canoe trip could start at Island Lake Recreation Area (upstream from here), and end at Huron Meadows Metropark (downstream from here).

Water flows here from the upper half of the Huron watershed, flowing from a mix of rural, recreational and developed lands.

How is the Creek affected by land use here?

The area of land draining to this site is large, receiving water from 269 square miles of land.

According to data from 2000, about 40% of this watershed is developed while about 10% is used for agriculture. At that time, 15% of the land was covered by impervious surface.

Impervious surface is hard on streams because it prevents rain from being filtered and cleaned through the soil and, instead, delivers it quickly to the stream, carrying pollutants and causing surging flows that damage the stream habitat and biotic community.

Creeks tend to start degrading once the watershed is more than 8% impervious and become badly degraded by 25%. [The most urbanized Huron River watershed that we study (draining into Millers Creek at Baxter Road) is 51% impervious.]

Watershed land use in 2000: 12% Agriculture, 43% Urban, 10% Forest, 17% Open, 19% Wetland.

What You Can Do

Help us improve the Huron River! Plant trees and deep-rooted plants in low areas on your property to help the rain infiltrate into the earth so it can be cleansed and cooled. Go to www.hrwc.org/take-action for ways to keep the rain at home so that it doesn't wash pollutants into the stream and cause flooding from the sudden increase in flow volume.



Insects found in at least two sampling events from 2009-2011:

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| *Brachycentridae — humpless case makers | Gyrinidae — whirligig beetle |
| caddisfly | Heptageniidae — flathead mayfly |
| *Corydalidae — dobson fly | Hydropsychidae — common net-spinner caddisfly |
| *Gomphidae — clubtail dragonfly | Limnephilidae — northern caddisfly |
| *Taeniopterygidae — broad-back winter stonefly | Philopotamidae — finger-net caddisfly |
| Baetidae — small minnow mayfly | Polycentropodidae — spotted head |
| Calopterygidae — broad-winged damselfly | Pyralidae — aquatic moths |
| Chironomidae — midge | Simuliidae — black fly |
| Coenagrionidae — narrow-winged damselfly | |
| Elmidae — riffle beetle | |

**Sensitive Family*