

# Honey Creek at Wagner Road

Adopt-a-Stream Site Report, updated January 2012

## Overall Condition: **Fair**

At this site, there is an average diversity bugs and some of them are sensitive. The water is unusually cool and contains a low level of unknown pollutants (determined through conductivity measurements). This site has good habitat and combined with the average diversity of aquatic life, the stream is rated on the high end of "fair". This is very close to the general average across the whole Huron River Watershed (for streams of this size).

### 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.

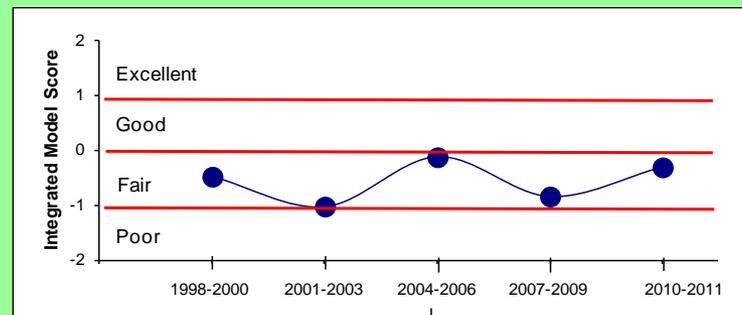
### Monitoring Data

These data come from HRWC volunteers who have monitored this site 35 times, starting in 1993. This includes Stonefly Search, River Roundup, Habitat, and Temperature events.

This site on Honey Creek is 20 feet wide and shallow (less than a foot) with an occasional two-foot deep pool. In 2009 we found good habitat and stable banks here although the rocks in the swift water (riffles) were somewhat clogged with silt. It has clean, cold water (seldom over 66°F).

There is average diversity of bugs here for a stream this size. We usually find about 11 families here at the collection events, and 2 of these families are usually considered to be sensitive.

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. One or two kinds of stoneflies are typically found at this site in the winter.



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: Dick Chase

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## Background Information

### Site History

There are two Honey Creeks in the Huron River Watershed. One is in Livingston County and is a very healthy stream. The Honey Creek in Washtenaw County (this site) is in a more urbanized setting and is more impacted. The watershed for this site includes much of Scio Township with its areas of residential development and urban centers along major road arteries.

In the mid-1980's, dioxane, a probable carcinogen, was found in lakes and wells around the Honey Creek watershed. Gelman Sciences had been discharging their chemical wastewater into unlined lagoons and spraying it on lawns around the plant. Pall Life Science, which bought Gelman in 1997, has since been cleaning the dioxane from the groundwater. The Michigan Dept. of Environmental Quality has allowed Pall to discharge the wastewater from its cleanup process into Honey Creek.

This site is close to the mouth, where Honey Creek flows into the Huron River (upstream of the Barton impoundment, which is the main source of drinking water for Ann Arbor). The City tests the water and reports that it remains safe for consumption.

### How is the Creek affected by land use here?

The area of land draining to this site receives water from 63 square miles of land, mostly developed.

According to data from 2000, two-fifths of the Honey Creek watershed is developed while one-third is used for agriculture. At that time, 10% 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: 31% Agriculture, 38% Urban, 9% Forest, 13% Open, 8% Wetland.*

### What You Can Do

Help us improve Honey Creek! 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](http://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:

- |   |   |
|---|---|
| *Capniidae — slender winter stonefly    | Hydropsychidae — common net-spinner caddisfly |
| *Corydalidae — dobson fly               | Limnephilidae — northern caddisfly            |
| *Isonychiidae — brush-legged mayfly     | Polycentropodidae — spotted head caddisfly    |
| Baetidae — small minnow mayfly          | Sialidae — alderfly                           |
| Calopterygidae — broad-winged damselfly | Simuliidae — black fly                        |
| Chironomidae — midge                    |   |
| Elmidae — riffle beetle                 |   |

*\*Sensitive Family*