Huron River Watershed Council

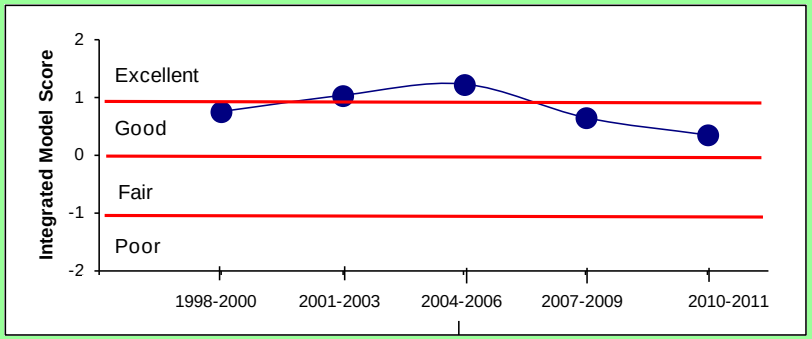
Protecting the river since 1965

Huron River at Zeeb Road

Adopt-a-Stream Site Report, updated January 2012

Overall Condition: ***Good***

At this site there are many kinds of bugs and several of them are sensitive, indicating a good quality stream. The water is clean but warm, and the stream banks and streambed are healthy here. This site improved to excellent quality in 2001 – 2006 but by 2009 it had fallen back to a good ranking. The data in 2010-2011 suggests a slight further decline; however, sampling has been difficult recently because of many high water sampling days. This is probably the deepest site that HRWC monitors.



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.s

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 33 times, starting in 1996. This includes Stonefly Search, River Roundup, Habitat, and Temperature events.

This site on Huron River is 116 feet wide and shallow (about 1 1/2 feet deep) with pools up to 4 feet deep. In 2008 we found good habitat here with nice, clean rocks in the swift water (riffles) although one-third of the banks were bare and, thus, unstable. It has clean water that is warm (up to 77°F in the summer) and 10% impervious surface overall, providing an amount of urban runoff that could begin to impair the river.

There is very good diversity of bugs here for a river of this size. In the spring we typically find 16 different families and 5 or 6 are sensitive families that require a good quality stream. In the fall an average of 15 families are typically found, with 2 - 3 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. Both of the winter stonefly families are found at this site, which confirms the good quality of this site.

Photo credit: Max Bromley

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Huron River at Zeeb Road

Background Information

Site History

Along the north bank of this site is the lovely 29-acre, forested Burns-Stokes Preserve. This area was the center of an old mill town called Scio Village and features portions of an old mill dam, sedge meadows, two prairie remnants along the railroad tracks, a stone tepee ring built by the former owners and beaver cuttings.

Located within the state-designated Natural Rivers protection zone, the River upstream of this site flows past the north side of Dexter and through two MetroParks as well as many farms.

How is the River affected by land use here?

The area of land draining to this site is huge, receiving water from 690 square miles of land.

This site is in a rural and residential area in the Huron watershed, according to data from 2000. 30% of the watershed is developed while 25% is used for agriculture. At that time, 10% of the land was covered in impervious surface.

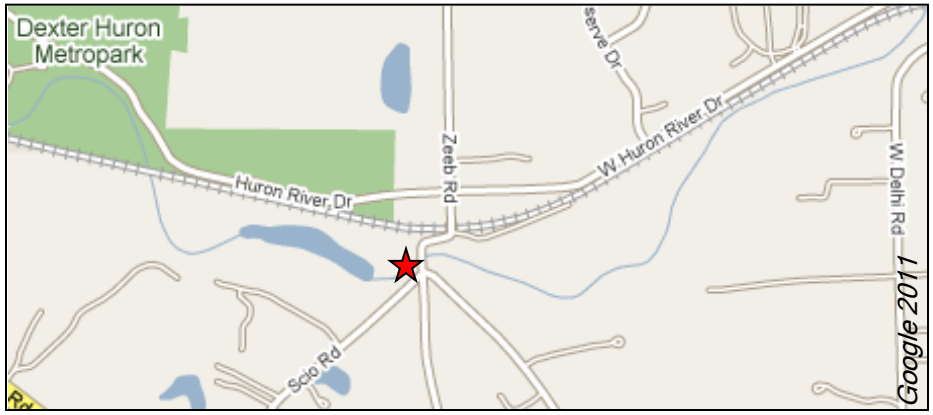
Impervious surface is hard on streams because it prevents rain from being filtered and cleaned through the soil and, instead, delivers it quickly to the stream, carrying pollutants and causing surging flows that damage the stream habitat and biotic community.

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: 25% Agriculture, 30% Urban, 12% Forest, 14% Open, 20% 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:

*Brachycentridae — humpless case makers caddisfly
*Capniidae — slender winter stonefly
*Ephemerellidae — spiny crawler mayfly
*Gomphidae — clubtail dragonfly
*Isonychiidae — brush-legged mayfly
*Perlidae — Perlid stonefly
*Perlodidae — Perlodid stonefly
*Taeniopterygidae — broad-back winter stonefly
Baetidae — small minnow mayfly
Chironomidae — midge
Coenagrionidae — narrow-winged damselfly
Corixidae — water boatman
Elmidae — riffle beetle
Heptageniidae — flathead mayfly
Hydropsychidae — common net spinner caddisfly
Philopotamidae — finger-net caddisfly
Polycentropodidae — spotted head caddisfly
Simuliidae — black fly
Tipulidae — crane fly

**Sensitive Family*