

Woods Creek at Renton Road

Adopt-a-Stream Site Report, updated January 2012

Overall Condition: *Fair*

At this site there are an average amount of bugs with a few sensitive families. The streambed is silty but the banks are stable. Streams in the lower Huron watershed tend to have more silt than upper watershed rivers since these streams are less steep than upper Huron streams. Also, the underlying geology is old lake plain, which is composed of silt and sand.

Measuring Stream Quality

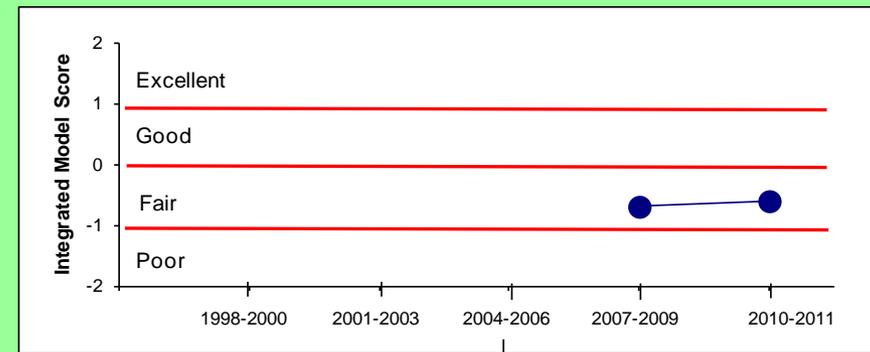
We use the bugs living in the creek to measure stream quality for two reasons. When the stream is rich in habitat variety it will have many diverse kinds of bugs (called families). Also, some bugs (called sensitive) can live only in good quality streams; they die in a poor quality stream. Any stream 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 nine times, starting in 2008. This includes Stonefly Search, River Roundup, Habitat, and Temperature events.

This site on Woods Creek is seven feet wide and shallow (less than half a foot). In 2008 we found poor habitat here with a mucky bottom and the rocks in the swift water (riffles) were clogged with silt although the banks were pretty stable. It has clean, cool water (seldom over 73°F). The extent of development (12% impervious surface) creates urban runoff that is likely to be degrading the stream.

There is a fair diversity of bugs here for such a small stream. In the spring we typically find 13 different families and one or two are sensitive families that require a good quality stream. In the fall an average of 11 families are typically found, but with only one sensitive one. Stoneflies are very sensitive insects that are only found in clean water. In the winter we have never found the two kinds of "winter stoneflies" that grow only in winter and are dormant the rest of the year. This suggests that the site lacks stonefly habitat or there might be a pollution problem here since streams that are not polluted should have sensitive families 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: HRWC

Wood Creek at Renton Road

Background Information

Site History

This stream was originally named after a family of early settlers. The first township meeting was held near Woods Creek at the home of Matthew Wood in 1827. In more recent times, the name was changed to Griggs Drain to reflect its designation as a County Drain. Members of Woods Creek Friends, a local citizens' watershed advocacy group, worked with the Wayne Co. Dept. of Environment to return the original name, Woods Creek, in 2008.

Land usage in this part of the watershed is mostly agricultural, sparse residential, a little light industry and forest. There is a lot of sediment movement in the stream at this site and at places the mud is deep; don't lose a boot! A privately owned and very overgrown impoundment, put in around 1905 by a prominent Detroit doctor and agriculturalist, Harry Kiskaden, is located on the creek just east of Renton Road. In this reach of the stream the Woods Creek channel is cutting down to the elevation of the Huron River a couple of miles downstream.

How is the Creek affected by land use here?

The area of land draining to this site is small, receiving water from only nine square miles of land.

This sub-watershed is a mix of farms and residential development, according to data from 2000. One-third of the Woods Creek watershed is developed while half is used for agriculture. At that time, 12% 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: 49% Agriculture, 36% Urban, 2% Forest, 12% Open, 0% Wetland

What You Can Do

Help us improve Woods 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** 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:

- | | |
|-----------------------------------------|-----------------------------------------------|
| *Leptophlebiidae — pronggill mayfly | Heptageniidae — flathead mayfly |
| *Perlodidae — Perlodid stonefly | Hydrophilidae — water scavenger beetle |
| Aeshnidae — damner dragonfly | Hydropsychidae — common net-spinner caddisfly |
| Baetidae — small minnow mayfly | Limnephilidae — northern caddisfly |
| Calopterygidae — broad-winged damselfly | Sialidae — alderfly |
| Chironomidae — midge | Simuliidae — black fly |
| Corixidae — water boatman | Tabanidae — deer fly, horse fly |
| Dixidae — dixid midges | Tipulidae — crane fly |
| Dytiscidae — predacious diving beetle | Veliidae — short-legged striders |
| Elmidae — riffle beetle | |
| Haliplidae — crawling beetle | |
- *Sensitive Family*