

## Macro-Invertebrate Survey – Big Creek & Cut River September 2023

### Macro Invertebrate Survey of Big Creek 09/19/2023

A great day for a sampling event at Big Creek, as the weather cooperated. The creek was at 8 degrees Celsius, which was perfect for the Brook Trout. Samples were collected on both sides of the Dewey Avenue culvert. Wayne Brooks took a few pictures.



Pictured here are Rick and Melanie

The team identified about a dozen species of macro invertebrates, including a Hellgrammite and lots of Mayflies. The most abundant species were Scuds at “Too Numerous” to count. The tally of species and their sensitivities to pollution resulted in a “Very Good” rating.



Pictured here are Candy, Linda, Sarah and Susan

Volunteer helpers were Sarah Krzemien from the Muskegon River Watershed Assembly, HLPOA members Melanie Brown, Wayne and Susan Brooks, Rick Larobardiere, and friends from Houghton Lake, Candy Hendrickson and Linda Stevens.

### **Macro-Invertebrate Survey in the Cut River – 09/25/2023**

Melanie Brown, Wayne and Susan Brooks, Rick Larobardiere, Dan Schaeffer from the HLPOA, and Sarah Krzemien from the Muskegon River Watershed Assembly sampled and evaluated the abundance and species of macro-invertebrates just below the Higgins Lake level control structure.

The algae growth in the Cut River is dense, and appears to be increasing every year. This proliferation is likely due to the increasing levels of phosphorous seen each year in the Roscommon Area Public High School students' sampling and testing the near shore waters of Higgins Lake. The impacts downstream are significant as well, as travelers in kayaks and canoes have noted in recent years.



Rick Larobardiere transferring collected samples for evaluation on shore



Melanie Brown collecting samples from the bottom sediments in the Cut below the dam

The results from the species identification and populations on shore indicate that the water quality for insect life is “Good” There is room for improvement, however.