

Looking Glass River Watershed Surveys (2012)

The Department of Environmental Quality (DEQ) is responsible for ensuring our waters meet water quality standards and are safe for swimming, fishing, boating, agricultural and industrial uses, and protects aquatic and wildlife communities. The DEQ has Aquatic Biologists that sample aquatic macroinvertebrates in the water, along with their habitat, to determine the health of our rivers and streams.

Aquatic macroinvertebrates are insects and other small organisms without backbones that live in our streams and rivers and are excellent indicators of water body health because many live in the water all year. In addition, some macroinvertebrates are more tolerant to pollution than others. In general, healthy streams have a wider variety of macroinvertebrates than waters that are polluted.

Additional information can be found on the DEQ's Assessment of Michigan Waters website at: www.Michigan.gov/waterquality

Routine sampling of the Looking Glass River Watershed occurs every five years to evaluate stream condition or health. Sampling occurred in 2002, 2007, and 2012 and will occur again in 2017. The aquatic macroinvertebrate community and habitat condition are shown in the graphs to the right. A map on the last page depicts macroinvertebrate condition at specific stream locations. To request a copy of the full report, please contact the DEQ staff noted at the bottom of this fact sheet.



MDEQ employee sampling a Michigan stream

Overall, the aquatic macroinvertebrate community and stream habitat (including habitat in the stream and along the edge) is rated acceptable, marginal, or good in the Looking Glass River watershed (see pie charts). In 2012, the Remy-Chandler Drain was targeted for monitoring due to local watershed group concerns regarding sedimentation and water quality. The drain had a poor rating at one location. Storm water flow and associated stressors of this maintained drain are the likely causes of this poor score.

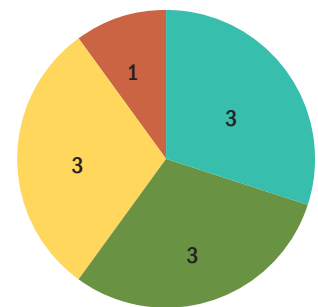


Perlid stonefly

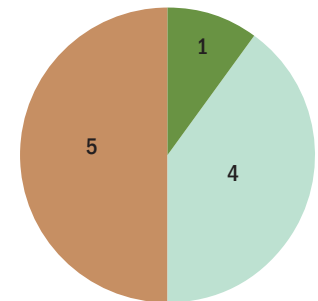
“A watershed is all of the land that drains into a river, lake or stream.”

Aquatic Bug and Habitat Health at 10 stations in the Looking Glass River watershed (2012)

Aquatic Bug Community



Habitat Rating



- Excellent
- High Acceptable
- Good
- Marginal
- Low Acceptable
- Poor

Watershed Land Use

Watershed	Wetlands	Forested	Developed	Cultivated Agriculture	Hay or Pasture	Water	Other
Looking Glass River	17%	13%	14%	33%	21%	1%	1%



Looking Glass River at Monroe Road

Land Use

The use of the land in the watersheds that drain to waterbodies greatly influences the types of pollution that can enter the water. The Looking Glass River watershed is dominated by cultivated agriculture and hay or pasture land use. Wetlands and Forested areas are approximately 30% of the total watershed area, followed by approximately 14% developed land. Much of the cultivated agriculture land was most likely wetland areas that have been drained so that crops can be grown.

Water Quality Data

Water chemistry data have been collected as part of the DEQ Water Quality Monitoring Program (www.michigan.gov/waterquality) and to a limited degree with biological surveys (*The link provided was broken and has been removed*). In general, nutrients and metals are at levels that would be expected in a northwestern Michigan river system.

Fish Consumption Data

The Grand River, Maple River, Shiawassee River, and Lake Ovid water bodies have fish consumption advisories due to mercury and PCB levels in fish tissue. The Eat Safe Fish link has more information. The DEQ is not responsible for fish stocking. Please see the Michigan Department of Natural Resources for more information: www.michigandnr.com/fishstock.
Fish Consumption Advisory Details: www.michigan.gov/eatsafefish

Beach Monitoring Data

Public beaches in this watershed (including those on rivers or lakes) may at times be closed due to elevated levels of bacteria; especially after rain. **Although this is rare, beach closing information is available online through BeachCast:** (*The link provided was broken and has been removed.*)

Watershed groups and Lake Associations

The Friends of the Looking Glass River Watershed: <https://lookingglassriverfriends.org>
Clinton County Conservation District: www.clintonconservation.org
Shiawassee County Conservation District: www.shiawasseeccd.org
Middle Grand River Organization of Watersheds: www.mgrow.org

Sampling Requests

If you have a water body that you would like the DEQ to consider sampling, you can fill out a Monitoring Request Form (www.michigan.gov/waterquality). Requests will be reviewed and completed based on staff availability, budget, and other monitoring needs.



- Excellent
- High Acceptable
- Low Acceptable
- Poor
- Site Visit

