

## Platte and Betsie River and Northwest Michigan Coastal Tributary Watershed Surveys (2008-2013)

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](http://www.Michigan.gov/waterquality)

Routine sampling of the Platte and Betsie River Watershed occurs every five years to evaluate stream condition or health. Sampling occurred in 2003, 2008, and 2013 and will occur again in 2018. 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 on the opposite side 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 good or excellent in these watersheds (see pie charts). In 2008, a small stream in the Platte River watershed had a poor rating (see map) due to groundwater contaminated with blueberry waste that is leaching into the stream. DEQ is working with the responsible party to re-mediate this issue.

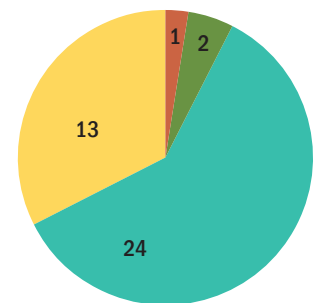


Perid stonefly

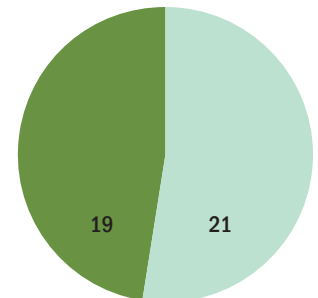
*“A watershed is all of the land that drains into a river, lake or stream.”*

Aquatic Bug and Habitat Health at 40 stations in the Platte, Betsie, and neighboring smaller watersheds (2003-2013)

Aquatic Bug Community



Habitat Rating



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

Watershed	Natural	Developed	Cultivated Agriculture	Hay or Pasture	Water	Other
Platte River	76%	7%	8%	1%	8%	0%
Betsie River	74%	9%	6%	1%	10%	0%
Crystal River, Otter, Herring and Bowens Creeks	67%	8%	10%	3%	9%	3%



Beulah beach

### 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 Platte and Betsie watersheds are dominated by natural land cover, which includes wetlands, forests, shrubs, and other vegetated areas. Cultivated land and developed land area are about 15% of the total land area with an exception in the small coastal areas, which have a slight increase in agriculture. The dominant crops are cherry or apple orchards and corn.

### Water Quality Data

Water chemistry data have been collected as part of the DEQ Water Quality Monitoring Program ([www.michigan.gov/waterquality](http://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.

The Platte Lake Improvement Association (PLIA) also collects data in the Platte River and Platte Lake. This information can be found at: <https://plattelake.org/>

### Fish Consumption Data

Portage, Leelanau, Glen, Ann, and Platte Lakes, as well as other 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:

<https://www.michigandnr.com/fishstock>. **Fish Consumption Advisory Details:** [www.michigan.gov/eatsafefish](http://www.michigan.gov/eatsafefish)

### Beach Monitoring Data

Public beaches in these watersheds (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

Platte Lake Improvement Association: <https://plattelake.org/>

Little Platte Lake Association: [www.littleplattelake.org](http://www.littleplattelake.org)

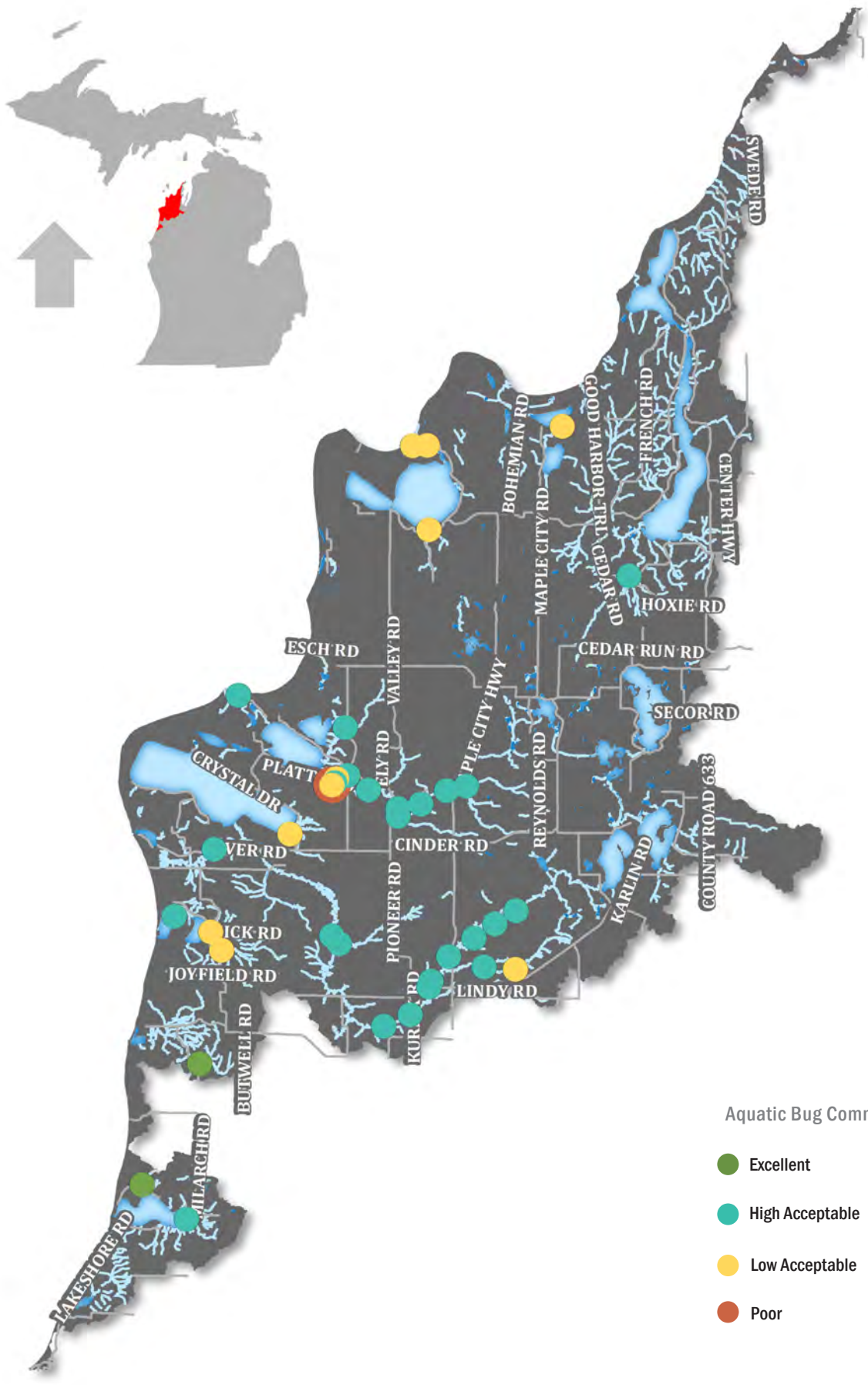
Benzie County Conservation District: [www.benziecd.org](http://www.benziecd.org)

Long Lake Association: [www.longlakeassociation.com](http://www.longlakeassociation.com)

### 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](http://www.michigan.gov/waterquality)). Requests will be reviewed and completed based on staff availability, budget, and other monitoring needs.





Aquatic Bug Community

- Excellent
- High Acceptable
- Low Acceptable
- Poor