

MiCorps Volunteer Stream Monitoring Program

Fact Sheet

Project Name: Upper Escanaba River Volunteer Stream Monitoring Program

Funding: \$11,220.45 awarded; \$11,407.45 match pledged

Project Duration: June 2014 - May 2016

Project Contact:

Renee Leow

Marquette County Conservation District

780 Commerce Dr. Suite C.

Marquette, MI 49855

906-226-2461 ext.102

Project Location: Marquette County, Dickinson County



Project Partners:

Alger Conservation District

Dickinson Conservation District

Escanaba River Association

Greenstone Mapping

Marquette Senior High School Wildlife & Natural Resources Management

Marquette Township

Northern Michigan University

Superior Watershed Partnership & Land Trust

Trout Unlimited

USDA-NRCS

Stream Team Volunteers

Yellow Dog Watershed Preserve

Project Summary:

The overall goal of the volunteer monitoring program is to protect and improve the water quality in the streams of the Escanaba River Watershed. Through the monitoring program, MCCD and volunteers will collect baseline data on aquatic habitats and stream health of the Upper Escanaba River Watershed.

The goals of the Upper Escanaba River Watershed Volunteer Stream Monitoring Program (UERW VSMP) are as follows:

1. Foster local stewardship of water resources and awareness of water quality issues through education.
2. Engage local citizens and partners as stakeholders to identify threats to and monitor the health of our streams.
3. Acquire useful water quality and aquatic habitat data through volunteer monitoring events and to make that data available to the general public, government officials and local stakeholder groups.
4. Ensure the monitoring project is sustainable beyond the MiCorps funding period.

To accomplish these goals, the UERW VSMP utilizes the Michigan Clean Water Corps (MiCorps) Volunteer Stream Monitoring Procedures (Latimore 2006). Specific objectives of this project include increasing citizen awareness and participation by training volunteer monitors to collect baseline data; identifying water quality problems and determining water quality trends; making monitoring results available to local residents; and educating the public about water quality issues.

MiCorps Volunteer Stream Monitoring Program

Fact Sheet

Monitoring Activities:

- The program recruits and trains a minimum of eight volunteer monitors that are trained by program staff in macroinvertebrate collection and identification, and habitat assessment techniques.
- Program staff and volunteers conduct spring and fall monitoring at eight sites in the streams and tributaries of the Upper Escanaba River Watershed. Data collected by volunteers includes benthic macroinvertebrate diversity and physical habitat.
- Aquatic macroinvertebrates are the primary data focus of this monitoring program. Aquatic macroinvertebrates are collected and identified stream-side to the order level primarily. Samples are also identified in-lab to family level by a volunteer macroinvertebrate expert, as determined by the MiCorps protocols. The macroinvertebrates are allied to determine diversity in the benthic community and gauge the health of the stream reach.
- Volunteers conduct a habitat assessment at least once a year every fall to get an indication of the physical characteristics of the stream reach.
- Streams are sampled annually in the spring (mid-May, preferably before leaf out) and fall (early-October or after leaf drop). Sites are sampled during the same two-week time frame each year to minimize seasonal variability in macroinvertebrate distribution and abundance. Sites are monitored more frequently if a habitat appears to be changing. The project is intended to continue indefinitely. New sites are added on an irregular basis, as volunteer and community interest occurs or problems are detected.
- The final step in monitoring is to make monitoring results available to interested parties. Data are entered into the MiCorps Data Exchange and results are summarized for use by interested stakeholder parties. Program staff distribute monitoring findings in the Marquette County Conservation District Annual Report.

Monitoring Results:

<u>Stream Monitoring Site</u>	<u>Spring 2015 SQI Score</u>	<u>Fall 2015 SQI Score</u>	<u>Spring 2016 SQI Score</u>
Warner Creek	Fair	Fair	Fair
Schweitzer Creek_1	Good	Good	Excellent
Schweitzer Creek_2	Good	Good	Excellent
West Branch_1	Excellent	Excellent	Good
West Branch_2	Good	Excellent	Good
West Branch_3	Good	Good	Fair
East Branch_1	Excellent	Excellent	Good
East Branch_2	Good	Good	Excellent

Project Photos



Stream-side macro sorting, identifying, and tallying to order level.



Volunteers working as a team to collect macros from a stream site.



In-lab macro identification to family level.