

**Manistee Conservation District
Final Report to
Great Lakes Commission
2016 Aquatic Macroinvertebrate Survey Grant**

***Lower Manistee River Watershed Volunteer Monitoring Program
(VSMP)***

Project Summary and Goals

In April of 2016, the Manistee Conservation District received grant funding from the Great Lakes commission to develop and implement a volunteer program to collect baseline data on aquatic habitats and stream health. It was designed to encourage local citizens to engage in volunteer stream sampling in the lower Manistee River watershed.

The specific goals of the Lower Manistee River Watershed Volunteer Stream Monitoring Project were as follows:

1. Foster stewardship by educating watershed residents on water quality issues and protection.
2. Engage local citizens and partners as stakeholders to monitor and identify threats to the health of the waterways.
3. Generate water quality and habitat data to identify problem areas within the lower Manistee River watershed where quality has been degraded and best management practices can be implemented.
4. Create a sustainable monitoring project that will transcend the MiCorps funding period.
5. Finalize study plan, site selection, sampling schedule and submit a QAPP to MiCorps for approval.

The VSMP referred to the Michigan Clean Water Corps (MiCorps) Volunteer Stream Monitoring Procedures to complete these goals. VSMP encouraged citizen scientists to utilize MiCorps protocol as a means of collecting consistent data that will directly benefit the watershed's health. The Manistee Conservation District took steps to plan, develop and implement a program that would fulfill the requirements of the grant and to establish a concise program that will be promoted and put into action yearly.

Program Background

The Manistee Conservation District offers assistance to the local community's environmental needs in a variety of ways. MCD created the VSMP to expand on their outreach services and increase communication between environmental government agencies and build partnerships with local citizens. These goals, in addition to improving the quality of the environment, created an opportunity to partner with the Great Lakes Commission and MiCorps to utilize grant monies. This partnership was successful and the goals have been accomplished in the following ways:

Project Milestones and Accomplishments

In late October 2016, Manistee Conservation District staff and volunteers gathered nets and buckets and headed out to 9 sites within the Manistee River watershed to collect aquatic macroinvertebrates and

conduct habitat assessments for their newly established VSMP program. This program was funded by a two-year grant from the Michigan Clean Water Corps (MiCorps).

VSMP events/activities started in October 2016 to fulfill grant consisted of:

- Submitting a finalized QAPP that was approved and then implemented, including selection and evaluation of sampling sites
- Organized and acquired necessary equipment and supplies
- Promoted program and recruited volunteers after attending MiCorps training conference in addition to holding a volunteer training day prior to the initial monitoring event
- Side-by-side sampling session with MiCorps staff to ensure quality data is collected for the duration of the program
- 4 monitoring events completed with one tentative event scheduled to complete the 2018 season
Fall 2016- 15 volunteers
Spring 2017- 16 volunteers
Fall 2017- 19 volunteers
Spring 2018- 17 volunteers
Fall 2018- tentative
- Held identification events following each collection that were attended by local volunteers assisted by MCD staff
- Entered all stream monitoring data into MiCorps database using preferred methods
- Shared results of VSMP with the public via the MCD website, newsletters, newspaper articles, social media and quarterly meetings
- Gathered feedback from post event volunteer surveys
- Submitted quarterly progress and financial reports using preferred methods

Obstacles

Few obstacles were in the way of the success of the project, but some were noted. Inclement weather was a minor factor due to rain during sampling events, but volunteers were not affected by this as they were prepared with adequate gear. Sampling site selection took many research hours, but volunteer insight and the project manager's knowledge of the area made this task much easier.

Partnerships

VSMP partnerships are as follows:

- Benzie Conservation District provided project advisory assistance
- Wexford Conservation District publicly supported the efforts of the VSMP and recruited volunteers
- Mason-Lake Conservation District provided knowledge and experience, equipment, volunteers and staff resources
- Portage Lake Watershed Forever provided watershed members as volunteers as well as assistance with publicity
- Little Manistee Watershed Conservation Council provided volunteers and assistance with publicity and outreach
- USDA-NCRS offered computer support and ArcGIS software

Volunteer partnerships proved to be the most important partnership that was gained through the implementation of VSMP. Volunteers were maintained throughout the funding of the project by continued engagement and enthusiasm. The Program Manager requested volunteer feedback and continually reviewed and improved on the program's relationship with the volunteer base. After the funding period ends, MCD will encourage watershed groups and other trained volunteers to "adopt" streams to ensure that sampling transcends the funding period. The district will seek millage renewal in 2018, securing funds for another four years of stream monitoring. The Project Manager and the Administrator will strengthen current partnerships while building new ones to ensure the long-term viability of this monitoring project. Further, this project has influenced the creation of a citizen science initiative.

Upon completion of the grant, a final report was submitted in addition to a fact sheet and the final financial status. All digital data and documents were organized for quick reference as the grant funded portion of the program came to a close.

The MCD will continue this monitoring program with established volunteers and will continue to solicit the assistance of local citizens who have sampling sites within their place of residence. Promoting investment in natural resources from local property owners will be an ongoing goal for the VSMP. The effectiveness of this program has been highly observable. It not only resulted in measureable environmental improvement as described, but improved community partnerships and support of MCD. It has facilitated a new platform for outreach and has spread awareness of environmental issues. This has better acquainted the watershed's residents with the role that volunteer monitoring can play in environmental protection. Yearly implementation of VSMP by the Manistee Conservation District will monitor the characteristics of the benthic macroinvertebrate habitats as a measure of stream health that will serve as a reference for any future changes. It will also establish where deterioration has and will occur to which remedial actions can be applied in the future.

Manistee Conservation District
Great Lakes Commission Grants Program
Volunteer Stream Monitoring Program (VSMP) Final Report

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Volunteers take part in MCD spring stream monitoring

Posted by MNA Staff on May 20th, 2018



Chelsea Cooper and Dwight Lewis collect material from Fletcher Creek on Saturday during the Manistee Conservation District's spring stream monitoring event. (Chelsea Cooper/Manistee Conservation District/Courtesy photo)

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Water quality results from stream monitoring program released

Posted by MNA Staff on January 7th, 2018



The Manistee Conservation District enlists volunteers for its Lower Manistee River Watershed volunteer stream monitoring program. In May 2017, volunteer Max Bromley and Kayla Knoll, of the MCD, collected material from Bear Creek for volunteers to sift through.

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MCD continues with stream monitoring project

Posted by Ashlyn Karienek on October 1st, 2017



Dwight Lewis, of Manistee, looks for bugs on Saturday along Bear Creek as part of the Manistee Conservation District's stream monitoring project. (Michelle Graves/News Advocate)

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Conservation district sets baseline for water health monitoring

Posted by Dylan Savela on January 20th, 2017



Macroinvertebrates serve as an indicator of a stream's health. Shortly after the Manistee Conservation District's fall collection day, it held a pair of workshops to identify the findings, the results of which were released this week. (News Advocate file photo)



