



FINAL PROJECT REPORT

Project Name: Volunteer Stream Monitoring Program

Project Code: #3003-VSM2005-02

Grantee: Tip of the Mitt Watershed Council
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Goals:

The goal of Tip of the Mitt Watershed Council's Volunteer Stream Monitoring Program is to protect and improve the water quality of the streams of the northern Lower Peninsula of Michigan. The specific objectives include: collecting baseline data, characterizing stream ecosystems, identifying specific water quality problems, determining water quality trends, and informing and educating the public regarding water quality issues and aquatic ecology.

Objectives:

1. Develop and implement a Quality Assurance Project Plan
2. Attend 8-hour training session provided by MiCorps
3. Promote volunteer stream monitoring activities and solicit volunteers and stream access permissions from local community
4. Research and purchase necessary equipment for performing stream monitoring activities
5. Coordinate and conduct volunteer stream monitoring training sessions
6. Coordinate volunteer stream monitoring field data collection sessions
7. Coordinate and implement macroinvertebrate identification sessions
8. Database development, data entry, and data analysis
9. Report generation for volunteers and lake/stream associations and web-page development for data dissemination
10. Development and submission of status reports
11. Development and submission of final reports, following MiCorps guidance at the end of the project
12. Submission of a release of claims statement at the end of the project

13. Provision of products and deliverables. This should include all data collected, in both hard copy and electronic format
14. Project evaluation

Objectives met:

We were able to meet all our project objectives although we far exceeded our budget and could not find enough additional funding sources to make up the difference.

Problems encountered:

1. Developing the protocols and planning the program took more time than anticipated
2. Some monitoring groups could have benefited from additional training
3. We needed more macroinvertebrate “experts”
4. Sampling protocol for collecting follow-up samples for the volunteers
5. We utilized most of our funding by the 3rd quarter of the two year project
6. Temperature readings collected by volunteers varied from those collected by Watershed Council staff. Thermometers should be compared with one another prior to the event.
7. The 300-foot reach was not always practical for the sites chosen
8. Volunteers did not freeze water samples after the first sampling – additional reminders needed by staff and team leaders
9. Data entry and report writing not completed on schedule
10. We are concerned about long-term sustainability due to inadequate funding to cover the amount of staff time necessary for maintaining the program

Summary of training and monitoring events, number of sites monitored, and number of volunteers involved:

Nearly 100 volunteers sampled sites on 10 streams within four watersheds of the northern Lower Peninsula of Michigan. During the two years of the program the number of volunteers nearly tripled from those in the first sampling period in fall 2005. We expanded the original program by adding the Bear River, the Jordan River and Tannery Creek. The number of sites monitored increased from 15 to 23 sites. Events held:

1. Comprehensive indoor training sessions were conducted on three occasions during the grant period.
2. We conducted outdoor training sessions upon three occasions during grant period.
3. Tip of the Mitt Watershed Council staff accompanied volunteer groups into the field to oversee monitoring activities four times during the grant period.
4. Four indoor macroinvertebrate identification sessions were held during course of the grant. Volunteers attended the meeting to sort samples and work with experts.
5. Due to lack of experts in the area, Tip of the Mitt Watershed Council staff worked together to organize and conduct a five-month macroinvertebrate identification course during the winter of 2005-2006
6. Two review sessions with local ‘experts’ to refresh taxonomic identification skills were held

Description of the environmental and other benefits of the project, including lessons learned:

The data collected by the volunteers has been invaluable to determining the health of the streams. Tip of the Mitt Watershed Council staff have already put the data to use, informing one community of a sudden drop in diversity that coincided with construction activities on a nearby stream bank. Perhaps the greatest benefit derived from the program is the connection established between people and water; fostering a sense of stewardship and creating greater awareness of and thus, improving protection of our streams.

During the course of the grant, Watershed Council staff improved program management in a number of ways. With each sampling event, staff improved their abilities to effectively manage and therefore, retain volunteers. Recruitment efforts were improved by expanding the number and type of media outlets and refined in that press releases were modified repeatedly to develop a succinct article that was both informative to the reader and readily acceptable for print by local papers. In addition, staff learned to more efficiently coordinate events to save time and resources (both human and monetary).

1. Any significant information/education or outreach activities or other ways public input was provided
 - a. Attended an 8-hour training session provided by MiCorps
 - b. Expert training sessions
 - c. Attended MiCorps conferences in 2005 and 2006 and sat on panels
 - d. Generated yearly reports for volunteers and public on web page.
 - e. Discussed the project on Radio programs

2. Any other evaluation that was done as part of the project
 - a. Evaluation forms were developed and given to the Volunteer Stream Monitors to evaluate the training and monitoring sessions
 - b. Diversity scores for all three indices for all data collected during the course of the grant were calculated. Data analyses were limited to simple comparisons between sites and sample periods. More complex analyses were not performed as there was insufficient data (at least three years of data needed)

Project Partners & their contributions:

1. Lake Charlevoix Association - provided volunteers
2. Friends of the Boyne River - provided volunteers
3. Friends of the Jordan River Watershed - provided volunteers
4. Mullett Area Preservation Society - provided volunteers
5. Three Lakes Association - provided volunteers
6. Petoskey High School - provided volunteers
7. Riparian owners – allowed permission to access sites monitored
8. Petoskey-Harbor Springs Area Community Foundation - \$2,000 additional funding
9. Charlevoix County Community Foundation - \$2,000 additional funding

Products that were completed:

Monitoring data collected during the grant period has been provided to the Great Lakes Commission for inclusion in the statewide MiCorps database.

Project sustainability:

Watershed Council staff members will continue coordinating and implementing volunteer stream monitoring events after the grant period has ended. The program will be expanded where feasible, which is in large part dependent upon funding to cover staff time and equipment. The Watershed Council will continue providing data to GLC or the appropriate organization for inclusion in the MiCorps database. The program will be regularly evaluated and alterations made as necessary to ensure sustainability and quality control. We are concerned about long-term sustainability due to inadequate funding to cover the amount of staff time necessary for maintaining the program.

Photos of activities and copies of products like brochures, flyers etc that were used to promote or report on monitoring:

These items are enclosed with the final report:

1. Flyer produced and distributed to recruit volunteers.
2. Photographs taken during training, field day, and indoor identification sessions (see Project Fact Sheet, flyers, reports, web pages)
3. Press releases to local media – (7)
4. Newspaper articles printed – (2)
5. Radio interviews to promote program (no copies available)
6. Volunteer Stream Monitoring Program Report 2005 and 2006
7. Volunteer Stream Monitoring Program – Web pages
8. Volunteer Opportunities – Web pages
9. Field sheet data (only on electronic copy)
10. Macroinvertebrate data (only on electronic copy)

Required attachments include:

1. Final Project Report (this document)
2. Narrative Reports for each of eight quarters of the grant period
3. FSR Reports for each of eight quarters of the grant period
4. Itemization of project costs
5. Project Fact Sheet
6. Copy of contract and (1) notice of change NOC of increased funding
7. Copy of approved Quality Assurance Project Plans (QAPPs)
8. Release of Claims
9. Electronic copy of project elements (CD)