

Final Project Sheet

Hatlem Creek Benthic Invertebrate Monitoring Program June 2006- June 2009

Glen Lake Association
P.O. Box 245
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Grant amount: \$6546
Match funds: \$3895

The GLA, beginning in 2006, implemented the Hatlem Creek Monitoring Initiative (HCMI); A comprehensive plan to implement ongoing water quality monitoring, evaluate and repair bank erosion sites, educate riparian owners on best land use practices, protect threatened endangered species and create a community interest in the area and project. The Benthic Invertebrate Monitoring Program is one very important part of the HCMI.

The purpose of the Hatlem Creek Benthic Invertebrate Monitoring Program was to train volunteers in benthic invertebrate identification and provide volunteers with the equipment and education needed to carry out the project as well as expand awareness of the Glen Lake/Crystal River Watershed.

There were many steps that needed to be implemented to insure a successful project; Training and QAPP development. The QAPP was submitted with revisions and accepted. The project manager attended an 8 hour training session at MSU on rapid assessment macro invertebrate identification. Supplies were purchased and volunteer training was established. A side-by-side training session for team leaders in the project was completed and a database was created by the GLA as well as data being uploaded into the MiCorps database. Data development was used to create project awareness, a goal of the project. Press releases, newsletters and T.V and radio spots promoting the HCMI were very successful promoting the project.



The goals of the project were met and exceeded. We have a bi-yearly sampling that has plenty of volunteers. And we have created tremendous awareness of Hatlem Creek corridor: An extremely sensitive area of the watershed. The benthic monitoring program jumpstarted several other testing projects that has led to cleaner healthier watershed. We now monitor the creek for several parameters and are in the process of cleaning up an E.coli problem. The program continues to be strong and will continue in to the foreseeable future thanks in large part to the strong base of the Glen Lake Association.

6 sites were monitored during the grant period and each sample site had 2 volunteers testing the site. Throughout the grant cycle, we had approximately 20 different people helping. Our testing program has been reduced to 3 sites and we expect to retain about 10 volunteers each sampling period. Each monitoring event went well with the exception of one site during one event. A section of creek dried up and we were unable to monitor the section. Action was taken to restore flow and the section is scoring better than ever. Each sampling event followed the same protocol. All the volunteers met and were given a 30-60 minute in stream training on how to sample macroinvertebrates by our lake biologist. After the training, volunteers were assigned to a sampling site and given the necessary equipment. Each site that was sampled was marked by the project manager to assure 300 ft of creek of was measured and the appropriate place was measured. Sampling took place for 30 minutes and volunteers headed back to a lab to assess the samples and final score was given by Rob Karner, the GLA lake biologist. Samples were placed under a microscope for identification as well as project on a screen so volunteers could see the fine detail of macros. The process of showcasing the macros was a huge success and helped to dramatically increase project enthusiasm.

The Glen Lake Association started the benthic monitoring program to help create awareness in the watershed and focus on protecting a sensitive and overlooked section of the watershed. There have been many groups that have helped with the project; The MDNR, the Leelanau Conservancy, the MDEQ and the Glen Lake Association. Todd Kalish, a biologist from the MDNR, offered help writing the grant and has given expert advice regarding the data and ongoing projects within the watershed. The MDEQ was involved with the remediation project that helped restore flow in the creek. The Glen Lake Association supplied volunteers and is the responsible party for the grant. John Hayes, the grant project manager, has given talks about the project at 2 Micorps annual meeting as well as during the annual Glen Lake meeting were approximately 200 people attend. Rob Karner, the lake biologist, has given expert assistance and offered lab space in the classroom at the Leelanau School. Additionally, there have been newspaper articles in the Leelanau Enterprise and radio spots on Interlochen Public Radio.

The overall result of the project has been a favorable one. Community awareness of the watershed has gone up a lot. Thousands of people have heard about the project and in particular, the Glen Lake Association constituents, have been informed of the purpose and progress of the grant. That enthusiasm of the community is high which has led to more monetary donations and future work on hatlem creek including enhanced E.coli testing, habitat restoration and water quality measurements.