



Muskegon Conservation District
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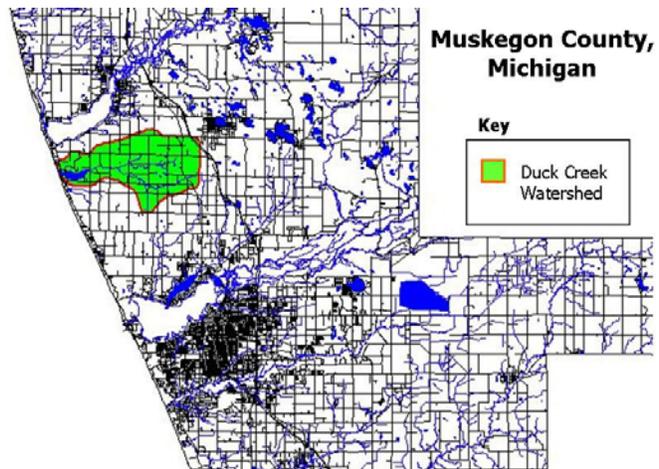


Duck Creek Volunteer Stream Monitoring Program PROJECT FACT SHEET

Grant period: June 2009 – August 2010
Grant Funds Expended: \$6231.03
Matching Funds Contributed: \$5023.29

PROJECT PARTNERS

- Muskegon Conservation District
- Duck Creek Watershed Assembly
- Fruitland Township
- Dalton Township
- Alcoa Foundation



PROJECT LOCATION The 11,500-acre Duck Creek Watershed lies entirely within Muskegon County, 15% in Dalton Township, 85% in Fruitland Township (see map above).

PROJECT SUMMARY

Concerns about rapidly increasing development in the Duck Creek watershed led the Duck Creek Watershed Assembly (DCWA) to institute periodic testing of water quality parameters over the course of several years. This preliminary monitoring demonstrated an increase in water temperature, sedimentation, nutrient load, and overall degradation of fish and wildlife habitat in this formerly high-quality stream. To formalize their monitoring efforts, the Muskegon Conservation District partnered with DCWA to initiate a MiCorps Volunteer Stream Monitoring Program. The ultimate goal of our monitoring efforts is to prevent further degradation of Duck Creek by identifying and proactively addressing the causes of water quality decline in the watershed.

To achieve these goals, we developed the following five objectives for the Duck Creek Volunteer Stream Monitoring Program:

- 1) Recruit, train, and retain a core group of dedicated volunteers (at least 24 new volunteers and 8 experienced volunteer team leaders over the course of the grant period) able to complete stream monitoring tasks according to the approved MiCorps/MDNRE procedures.
- 2) Conduct four habitat assessment and benthic macroinvertebrate data collection events during the grant period, with a minimum of two additional collections to be held after the grant period.
- 3) Ensure the collection of precise, accurate, and reliable data by developing and implementing a MiCorps-approved Quality Assurance Program Plan.
- 4) Establish an effective system for storing, sharing, and interpreting stream monitoring data.
- 5) Disseminate the data for the purpose of encouraging informed land use decisions and implementation of best management practices within the watershed.

PROJECT ACCOMPLISHMENTS AND MEASURABLE RESULTS

- 26 volunteers recruited and trained with 8 volunteers identified as team leaders.
- 6 sites monitored on Duck Creek main branch and tributaries.
- 2 benthic macroinvertebrate collections at 6 sites (Fall 2009, Spring 2010).
- 1 habitat assessment at 6 sites (Fall 2009).
- Family-level identification of all collected macroinvertebrates.
- All data entered into MiCorps Data Exchange website.
- 1 Quality Assurance Project Plan developed and implemented.
- 1 Volunteer Handbook created.
- 1 day-long volunteer training including classroom and in-stream components.
- 2 mini-trainings held directly before monitoring events.
- 1 webpage (muskegoncd.org/Duck_Creek_Monitoring) for ongoing volunteer recruitment
- 2 press releases each published in 4 local newspapers and e-newsletters.
- 1 database developed to record volunteer contact info and participation.
- 1 database developed to store raw data from MiCorps datasheets.



▲ Completing a Habitat Assessment at the headwaters of Duck Creek.



▲ Volunteers pick benthic macroinvertebrates out of newly collected stream samples using a variety of tools.



◀ Sorting and identifying macroinvertebrate samples back in the office.