



Citizen Based Monitoring Project Report

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By

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Sponsors and Supporters

The Fox-Wolf Watershed Alliance (FWWA) along with the Wisconsin Department of Natural Resources (WDNR) funded this Citizen-based Monitoring (CBM) project.

Purpose and Objective

FWWA began a Citizen Water Monitoring Program in 2009, in cooperation with the Stockbridge-Munsee Community (SMC). This program taught lake residents how to monitor and collect water quality data. It brought Tribal and Non-tribal residents together with the common purpose of protecting shared waters.

The success of the 2009 program prompted FWWA to expand the CBM project to other area lakes in 2010-2011. The purpose of this project is to provide training on how to monitor, collect, and record water quality data on lakes in the Shawano Lakes region for use by peers and professionals. These lakes are all part of the Fox and Wolf River watershed and the quality of these lakes greatly affect the water quality of the Fox and Wolf Rivers and, ultimately, Lake Michigan. This project provided information on the perception of the water resources and the quality of the water resources in the Shawano Lakes region.

Methods and Educational Efforts

The FWWA Project Coordinator, JaNelle Merry, compiled a list of waterfront property owners at Beaulieu Lake, Koonz Lake, Misson Lake, Malone Lake, Mud Lake, Upper Red and Lower Red Lakes, and White Clay Lake in the Shawano Lakes region (area shown on Figure 1). A survey was created and sent to the waterfront property owners. An example of this survey is attached as Figure 2. This survey resulted in a group of people interested in participating in the CBM program.

On June 5, 2010, the FWWA, along with SMC and the WDNR sponsored a Citizen Water Monitoring Kick-off Event at Captain's Cove on Island Lake. This event provided opportunities for interested residents to mingle with their neighbors, to learn about water quality monitoring and to discuss other fun projects such as Loon Watch, Shoreline Habitat Restoration, and Rain Barrels.

The event provided training on how to monitor, collect, and record water quality data for use by peers and professionals. Jay Schiefelbein of the WDNR presented information on the use of the Secchi Disc for monitoring water quality. JaNelle Merry of the FWWA provided additional information on monitoring for water quality, Secchi Disc equipment for participants, and information on the Loon Watch and Shoreline Habitat Restoration project sponsored by the FWWA. Stockbridge-Munsee Hydrologist and FWWA Board Member, Luke Hennigan, provided hands on training in the boat on Island Lake.

Ten people attended the event, representing four different area lakes: Big Lake, Beaulieu Lake, Koonz Lake, and Mission Lake.

In spring of 2011, a survey was sent out to waterfront property owners around White Clay Lake and, as a result, JaNelle trained new volunteers on White Clay Lake and monitoring began.

The participants gathered water quality information using the Secchi Disc out on the lake every 7-14 days, recorded their observations on a data sheet and submitted the data sheet to FWWA to enter or entered the data on the WDNR Citizen Water Monitoring network website themselves. The information that was collected and submitted to the website is or will be available for anyone to see.

Part of the educational efforts of this CBM project included educating volunteers and waterfront property owners on the contributors to poor water quality. To reach landowners in the Fox-Wolf Watershed and expand awareness of water quality issues, FWWA created an educational display called Water's Edge Education (WEE) display. This display provides resources and information on what landowners can do on their property to improve local and regional water quality. It discusses and displays the importance of lakes, water quality issues, and water conservation. See Figure 3 for photos of this display. This display was used at various events in 2011 such as Walleye Weekend in Fond du Lac, Appleton's Green Market (every third Saturday in summer), the Calumet County Fair and Outagamie County's Field Days, so far. The Small-scale Lake Planning (SSLP) Grant program, the CBM program, the Northeastern Wisconsin Stormwater Consortium (NEWSOC), and the FWWA paid for the creation and production of this display. It is estimated that approximately 20,000 people (or more) in 2010-2011 will be reached with this traveling WEE display. This display will also be used at various lake association events and schools.

FWWA also created a tri-fold color brochure for use in educating people and recruiting volunteers for CBM projects in the Fox-Wolf region (Figure 4). FWWA's long-term goal is to reach more and more lakes covering the Fox-Wolf Watershed, having citizens monitoring water quality wherever possible.

Results

The results of the surveys sent to waterfront property owners in the Shawano Lakes region are as follows:

- The first round of surveys to residents at Beauleau, Koonz, Moon, Mission, Malone, Big, Mud, Island, Upper and Lower Red Lakes had a twenty percent response rate (46 out of 230 surveys sent).
- The second round of surveys to White Clay Lake residents had an eleven percent response rate (12 out of 109 surveys sent).
- Most respondents describe their lake's water quality to be fair to good. They also responded that they believe that the greatest impacts to water quality are excessive aquatic plants and algae.
- Most respondents would be motivated to change how they manage their land if it provided better habitat for fish and wildlife, increased the natural beauty of their property, or increased their property value.
- Most respondents value the peace and quiet, scenery, and fishing on the lakes.

As a result of the surveys, new participants in the CBM project were recruited and additional lakes were added to the monitoring list. Beauleau, Koonz, Mission, and White Clay Lake residents are now actively participating in the CBM program.

As a result of the surveys, three interested lake residents agreed to meet with FWWA and discuss shoreline habitat restoration. The FWWA Project Coordinator met with two of the lake residents at their residence to review the potential for shoreline habitat restoration and discussed the applicability of doing a project at their property. Two shoreline habitat restoration projects are currently in process.

The result of the creation, production and use of the WEE display and the CBM brochure is an increase in public awareness. At the Appleton Green Market in July alone, over 175 people were reached and talked to about water quality issues, CBM, rain gardens, and rain barrels.

The result of the creation and production of the WEE display is thousands of people in northeastern Wisconsin educated as NEWSC members utilize the display in their community outreach efforts. It is the intent of the counties and municipalities that are members of NEWSC to use this display for their Information and Education (I and E) efforts for years to come.

Result: Four lakes in the Shawano Lakes region currently being actively monitored.

Result: Residents are interested in improving water quality by increasing native shoreline habitat.

Result: Reaching thousands of people each year with the use of the WEE display.

Result: Recruiting CBM participants at additional lakes using the CBM brochure.