

2010 REPORT

Extension Shoreland Education Program

CHALLENGE

With thousands of access points and millions of hours of use each year, Minnesota's water resources face increasing pressure to serve multiple purposes. Expanding residential development, increasing recreational use, loss of habitat, introduction of harmful invasive species, and changing climate patterns are degrading our lakes and streams. Minnesotans want to protect water quality, but they may lack knowledge or inspiration to preserve or improve shorelines, prevent the spread of aquatic invasive plants, or monitor their lake or stream to assess its ecological health.

HOW EXTENSION IS RESPONDING

The University of Minnesota Extension Shoreland Education Program provides research-based, balanced education on restoring shorelines with native plants, reducing stormwater impacts, monitoring water chemistry and aquatic vegetation, improving water quality, and preventing the spread of aquatic invasive species.

In 2010, the Extension Shoreland Program taught over 17,000 Minnesotans through 174 locally sponsored workshops, displays and booths at public events, and professional presentations in 31 of Minnesota's 81 major watersheds. These events generated nearly \$17,000 to cover expenses and expand the program.

From Shore to Shore, our bimonthly newsletter, has a circulation of over 1426, 80% of whom receive it electronically. We also have a monthly electronic mailing, *Shoreland Education News*, to inform subscribers of current water related news items and events.

Shoreland educators are involved with a research project funded by LCCMR (\$150,000), Itasca County (\$10,000), and Otter Tail County, studying the social dynamics of natural shoreland buffer incentives to achieve greater and enduring protection of lakeshores in Itasca and Otter Tail counties. Both of these projects will continue into 2011.

Shoreland educators are also working on two EPA-funded 319 grants: \$208,700 was awarded for a two-year study to adapt Minnesota shoreland best management practices for climate change; and \$134,417 was awarded to develop selection, design, and assessment standards for shoreland bioengineering practices.



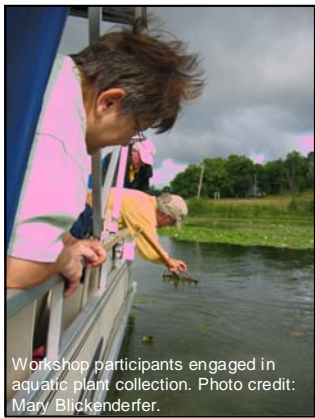
Shoreland educators conducting research on climate change impacts to native shoreland plants. Photo credit: Barb Liukkonen.



Youth learn about aquatic invasive species at River Quest. Photo credit: Duluth Seaway Port Authority.

HOW SHORELAND EDUCATION MADE AN IMPACT IN 2010

- Volunteers who attended Aquatic Plant identification workshops quit harvesting aquatic plants, monitored their lakes for illegal plant harvesting, and provided peer-to-peer training experiences.
- Little Sand Lake Association (Hubbard County) members attended three aquatic plant identification workshops. They then mapped the plant communities in Little Sand Lake, conducted full-lake plant monitoring, and developed an aquatic invasive species detection protocol.
- Lake Washburn Association (Cass County) association members were trained in two workshops on Eurasian water milfoil (EWM) detection and identification of other aquatic, non-invasive plants common to Lake Washburn. As a result, the DNR received fewer reports on mistakenly identified plants.



Workshop participants engaged in aquatic plant collection. Photo credit: Mary Blickenderfer.

- The Stop Aquatic Hitchhikers! campaign reached 13,418 people through 70 events, providing education about invasive species identification, detection, and prevention. Mass media efforts generated 19 story placements on invasive species with a potential audience of 2.2 million people.

HOW WE WORK

Partnerships, capacity, and funding structure

The Shoreland Education Program has three full-time Extension Educators: **Karen Terry**, **Eleanor Burkett**, and **Mary Blickenderfer**. The program is further supported by **Jackie Froemming**, an Extension Educator in Crow Wing County, and educators from Minnesota Sea Grant and Extension's Stormwater Education Team. Primary partners include Soil and Water Conservation Districts, Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, Minnesota Waters, lake association leaders, and local governmental leaders. University resources include the Water Resources Center and Minnesota Sea Grant.

The Extension Shoreland Program uses a diversified funding approach to complete its mission of providing shoreland education and training. Primarily, efforts are supported by Extension and through sponsor-paid fees. The team also secures grants to sustain Shoreland programming and enhance future possibilities.

DISCOVER MORE ONLINE AT EXTENSION.UMN.EDU/SHORELAND

SUCCESS IN STOCKING LAKE

EXTENSION WORKING WITH COMMUNITIES TO DEVELOP SOLUTIONS

Wadena County residents were concerned about the water quality of Stocking Lake. Without data on the source of pollution, discussions on the topic easily became heated.

Extension educators identified the various pollution sources but knew that just sharing the monitoring results wouldn't address the broader concerns of the community, or create a long-term solution.

So, when bringing research findings to the residents for discussion, Extension also invited scientists, farmers, and community leaders to address common misconceptions and develop a plan.

The meeting directly led to action: a farmer reduced runoff from his fields, individuals accepted responsibility for upgrading inadequate septic systems, and the association opened their membership to all watershed residents.

The result will be cleaner water and a sustainable model for the future in which citizens take ownership of the water quality impacts within their watershed.