





National Theme: Watershed Management

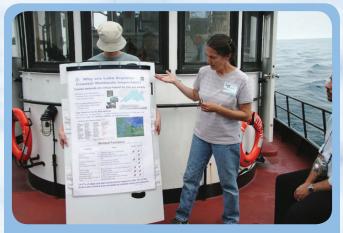
Project Description

Resources have been developed over the past five years that provide information and research on key issues such as shoreline development and land use planning, storm water management, coastal erosion, water quality, aquatic nuisance species, coastal wetlands and fisheries in the Lake Superior Basin. However, many people don't know where to find this information;

those who do find it may be unable to see how it relates to their lives and the overall sustainability of the water resources in their communities. Project staff advertised in local papers, obtained existing mailing lists, published in relevant local newsletters and consulted local contacts to ensure that target audiences were reached. This project addresses the need to inform Lake Superior basin residents and decision makers about land use and water resource issues in their communities by bringing educational programs to them and providing a venue for discussion of local as well as basin-wide issues. The program includes a combination of lecture, discussion and hands-on sampling by citizens along the Lake Superior shoreline.

Project Goals

To increase citizen and local government officials understanding of the Lake Superior ecosystem, watershed processes, and the relationship between land use and water quality in order to make better land use decisions.



Poster session and practical planning/land use exercise aboard the L.L.Smith, Ir research vessel.



PROJECT CONTACTS

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Minnesota DNR

Great Lakes Regional Water Program
Wisconsin DNR

Ashland-Bayfield-Douglas-Iron Counties Land Conservation Department

Great Lakes Aquarium

Lake Superior Research Institute

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Actions

Northland NEMO (Nonpoint source pollution Education for Municipal Officials) is a joint Wisconsin-Minnesota program, which has been adapted for the Lake Superior Basin. The program content includes the NEMO model of watershed-based planning and education about the connection between land use and water quality as it applies to Lake Superior watershed health. Key issues include stormwater management, shoreline development and planning, red clay erosion and sedimentation, exotic species, degradation of coastal wetlands, fish habitat and beach closings due to elevated bacteria levels. After an introductory

lecture, participants board the research vessel L. L. Smith, Jr. for a poster presentation followed by a practical planning/land use exercise and hands-on water sampling and testing. This program is available to communities along the shores of Minnesota, from Duluth to Grand Marais, and Wisconsin, from Superior to Washburn.



Outcomes/Impacts

Through evaluations provided by the repeat participants we were able to assess any behavioral changes that may have occurred due to these programs. Short-term outcomes were measured through these evaluations and included increased understanding of Lake Superior ecology, water quality, non-point issues and management challenges. Mid-term outcomes include requests for additional information for planning committees, such as NEMO presentations, and changes in participant behavior. The long-term outcome will be integration of natural resource inventories into community land use planning, changes in local zoning ordinances and improved water quality in Lake Superior and its tributaries. Initial analysis of participant evaluations showed that their understanding of Lake Superior ecosystem, watershed processes, relationship between land use and water quality increased. The figures below demonstrate that the target audience was reached.

Total participants 2004 - 05 = 859 people, representing more than 100 communities

Participants 2004	Participants 2005
75% were full-time residents	60% full-time residents
10% local government officials	16% local government officials

Other notable changes:

59.5% of 2004 participants and 54% of 2005 participants said their opinion of the lake had changed

43% of the 75 return participants (2005) reported that they had taken some kind of action in their communities.

Over 90% of the elected officials said the information would help them make changes in their communities





Online registration: www.seagrant.uwn.edu/vfl