

Chapter 2

Public Outreach and Education



Hartley Nature Center, Duluth, Minnesota.
Photo credit: Carri Lohse-Hanson, Minnesota Pollution Control Agency.

Lake Superior Lakewide Management Plan 2008

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Chapter 2

Public Outreach and Education

BACKGROUND

The Lake Superior Binational Program has a long history of public involvement in the development of the Lake Superior Lakewide Management Plan (LaMP). In particular, the Lake Superior Binational Forum, the primary public group associated with the agencies responsible for carrying out the Zero Discharge Demonstration Project, has been key to establishing an effective multi-sector stakeholder process. The Forum has held many workshops over the years for the purpose of acquiring necessary background information to help develop recommendations and proposals for reducing the sources of nine critical pollutants to the Lake Superior basin. The Forum has also published many documents on key issues relating to the LaMP.

In addition, a separate Lake Superior Work Group Communications/Public Involvement Committee, comprised of staff from government agencies and their partners, was formed to help expand the network of stakeholders and outreach activities. This Committee has produced documents for the purpose of informing the public about all aspects of the LaMP and the Binational Program.

2.0 ABOUT THIS CHAPTER

All the partners involved in the Lake Superior LaMP (i.e., state, provincial, and federal agencies, Tribes/First Nations, industry, the public, and others) have long been committed to an open, fair, and significant public involvement process. One of the main goals of the Lake Superior Binational Program is, in fact, to promote meaningful public participation and education to ensure that the needs and concerns of the diverse population in the Lake Superior basin are met. This section of the LaMP will briefly describe the efforts that have been made to date on public outreach and involvement initiatives.

2.1 PUBLIC INVOLVEMENT

A major tenet of ecosystem management is the necessity of continuous involvement of the public that is respectful of all viewpoints and stakeholders. Public input and support helps to ensure that the actions recommended in the LaMP are carried out, leading the way to restoring and protecting the lake ecosystem. The key to public support and the program's success is effective communication between the government agencies and the diverse population of the Lake Superior basin.

The LaMP 2008 is presented as a working document, based on existing information. It was the goal of the Binational Executive Committee to provide a *current* foundation for discussion of

Lake Superior efforts, not necessarily a *complete historical one*. The LaMP is modified based on new findings and public input. To that end, public input received on previous LaMP documents has been addressed in LaMP 2008. This is a necessary step if we are to institute adaptive management on an ecosystem scale.

A significant project related to public outreach is the Community Awareness Review and Development (CARD) project carried out in 2004-2005, and extended in Canada from 2006-2007. Thirteen communities and four First Nations were surveyed to determine community priorities and awareness of environmental issues. The results of this project will be used to focus future community outreach efforts and engage communities in implementing projects to achieve LaMP goals. See Chapter 7, Section 7.1.1 for more information on the CARD project.

2.2 PUBLIC OUTREACH/EDUCATION EFFORTS TO DATE

When the Lake Superior Binational Program first began, public involvement activities were carried out primarily by the Binational Forum (see Section 2.2.1 below). As the Program matured, it became apparent that the government agencies and their partners needed their own separate public outreach mechanism. Therefore, a separate group was formed entitled the Communications/Public Involvement Committee. Over the years, the two groups have worked together, complementing each other's efforts to involve the Lake Superior basin population.

2.2.1 Lake Superior Binational Forum

Since 1991, the Lake Superior Binational Forum has served as the public body that provides input to the governments responsible for carrying out the goals of the Binational Program. The purpose of the Forum is to promote participation among government, industry, and environmental stakeholders on the restoration and protection of Lake Superior. The Forum is comprised of Canadian and American stakeholders representing diverse community sectors such as environmental, Tribal/First Nation, industrial, business, health, faith community, and academic interests.

The Forum has held technical workshops on various topics including mercury reduction,



Figure 2-1. The Lake Superior Binational Forum donated three books about Lake Superior to five public libraries around the basin, including the Red Cliff Tribal library in Bayfield, Wisconsin. Red Cliff Librarian Gina LaGrew and two young patrons read books about the lake on special display at the library. Photo credit: Lissa Radke, Northland College.

sustainability indicators, PCBs, pesticides, and land use. These workshops provided necessary background information that led to proposals for chemical phase-out schedules and reduction recommendations. For example, recommendations related to the nine critical pollutants may be found in the Stage 2 Lakewide Management Plan (available at <http://www.epa.gov/glnpo/lakesuperior/pubs.html>). A more complete list and description of recent Forum activities may be found in Addendum 2A.

The Forum has focused on a series of projects that are conducted jointly with the Lake Superior Work Group. These have included a newspaper insert on critical Lake Superior issues, the CARD project, an annual environmental stewardship awards program, workshops on mercury and household garbage burning, Lake Superior Day, public input sessions, mercury reduction mentoring, and updates to the monitoring metadatabase. Forum activities are reviewed annually during the preparation of a yearly work plan.

2.2.2 Activities of the Communications/Public Involvement Committee

The Communications/Public Involvement Committee (or the Communications Committee) of the Lake Superior Work Group implements provisions of a strategy reflecting the Lake Superior Binational Program's long-term commitment to communications, public involvement, outreach, and education.

The Binational Program has produced various documents and brochures for the purpose of informing and educating the public. These documents include a general informational brochure on the Binational Program, as well as a brief introduction piece for each committee on the Lake Superior Work Group.

Since the LaMP 2006 Report was released, the Communications Committee has produced a highlights brochure and a 2005 Zero Discharge Demonstration Program and Critical Chemical Milestones factsheet. The first, "Lake Superior Lakewide Management Program (LaMP) Highlights 2006", was based on the LaMP 2006 Report and was mailed to Lake Superior stakeholders and distributed at Lake Superior Day events and various meetings around the basin. The second factsheet was based on the Zero Discharge Demonstration Program and Critical Chemical Milestones Report 2005. This was also mailed to Lake Superior stakeholders and distributed at various meetings around the basin.

In addition, the Communications Committee has coordinated more closely with the US EPA Great Lakes National Program Office (GLNPO) Communications Team so that many Lake Superior highlights are reflected in a quarterly activities report that reaches the highest level of US EPA management.

The Binational Program has developed a traveling display as a tool for outreach and education to the general public. This display is used to publicize Lake Superior and the Binational Program at public meetings, seminars, and conferences. The display includes a large photograph of the lake, with space for fact sheets, brochures, and other documents. The display booth is staffed by members of the Binational Program. In addition, a table-top display developed by University of Wisconsin-Extension is in use around the basin.

The Communications Committee has moved the main program web site to a joint Canada-U.S. site (www.binational.net), which is a site devoted to binational programs jointly led by Environment Canada and US EPA. The committee has also been revising the agency Lake Superior Binational Program web sites (www.epa.gov/glnpo/lakesuperior/ and <http://www.on.ec.gc.ca/greatlakes/default.asp?lang=En&n=E621AE0A-1>), which consist of a home page and supporting pages. This complements the Forum web site, which can be found at www.superiorforum.info.

The Communications Committee continues to participate in joint outreach and education projects with the Forum, such as a Lake Superior Awards program (see Addendum 2A) and Lake Superior Day. Over the past two years, Lake Superior Day has received support from many local governments and non-government organizations around the basin, as well as the following federal and state representatives:

- Rona Ambrose, Minister, Department of the Environment, Government of Canada;
- Stephen Johnson, Administrator, US EPA;
- Jennifer Granholm, Governor of Michigan;
- Tim Pawlenty, Governor of Minnesota; and
- Jim Doyle, Governor of Wisconsin.

A mailing list has been compiled to keep the public informed of new developments in the Lake Superior basin and to provide them with the opportunity to comment. The mailing list includes both U.S. and Canadian government agencies, tribal organizations and First Nations, environmental groups, and other public groups.

Assembling material to inform the public on progress toward restoring and protecting Lake Superior is another role which the committee fulfills. The committee is currently working on collecting success stories for distribution in various newsletters.

As this LaMP 2008 Report is not intended to be circulated extensively to the public, the agencies will produce a separate document, a LaMP 2008 Highlights brochure, to inform the public about activities of the Binational Program.

2.2.3 Lake Superior Pathfinders Program

The Lake Superior Pathfinders program is empowering environmental leadership for its third year!

Pathfinders began in 2002 when educators at the University of Wisconsin-Extension received a grant from the Wisconsin Coastal Management Program (WCMP) to create environmental leadership programs for high school youth and adult audiences. A study group of approximately 12 partner organizations, including Lake Superior Binational Program experts, met over the course of a year to assist with the development of the programs and then conducted pilot versions for both audiences. The youth program was piloted with 38 students in August of 2004, and the adult program was piloted over weekends in September 2004 with 12 participants selected from 59 nominated by UW-Extension educators and partners. In 2005, WCMP provided funding for

the development of a statewide model for the youth program, involving 85 participants (59 from Wisconsin) in three different week-long sessions. Northland College's Sigurd Olson Environmental Institute also became a partner and supplied funds, educators, and in-kind contributions. During the summer 2006 program, 120 students were expected to attend, including 30 Navigators, or returning Pathfinders who focus mostly on service learning. The adult program is still being pursued, but funding is not yet available.

The goals of Pathfinders include assisting participants to learn more about their own leadership styles through the use of tools such as low and high ropes challenge courses, climbing walls, and on-the-water kayak experiences. Educators help participants learn how to better utilize their skills in their communities and to take action on critical lake issues. After attending the program, participants better understand critical Lake Superior issues, as identified by the Binational Program. They more effectively gather, analyze, and evaluate related information, and have the confidence, knowledge, and desire to take action to respond to these issues in a more sustainable way. They recognize their own personal leadership skills and develop a personal "action" plan to complete in their community. When addressing an issue, they understand the Lake Superior basin community and respect different perspectives in seeking a resolution, while networking and forming relationships and partnerships. Participants also gain a sense of place for Lake Superior, as well as insight into the lake's cultural significance and the Anishinabe or Chippewa Tribe's reliance on it as they interact with Tribal elders and educators.



Figure 2-2. Students paddle and plant wild rice.
Photo credit: Steve Durocher, Cedar Tree Institute.

The Pathfinders program is currently considering options to implement the program in Michigan, Minnesota, and Ontario in an effort to expand lakewide, creating leaders of critical environmental issues all around Lake Superior.

For more information on this program, please visit www.northland.edu/pathfinders. More information and details on the Pathfinders program may be found in Addendum 2B of this chapter and in Chapter 7.

2.2.4 Landowner and Realtor Outreach Project

The Landowner and Realtor Outreach Pilot Project aims to educate realtors and rural residential property owners about environmental issues. In terms of Lake Superior LaMP initiatives, this project is unique because it is not being implemented consistently basinwide, but is instead being piloted on a jurisdictional basis. Property ownership and real estate regulation usually falls within the jurisdiction of provincial, state, or local governments, and funding opportunities and schedules are at the federal level or lower. Various LaMP partners are already engaged in outreach efforts that address some of the same environmental issues addressed in this project, although these existing efforts target a different audience. The project employs a two-pronged

approach that includes a binder containing both LaMP and locally-specific information, in addition to coordinated outreach activities (home visits, realtor workshops, etc.).

For these reasons, the Landowner and Realtor Outreach Pilot Project has adopted an opportunistic, jurisdictionally-specific approach to implementation. This allows implementers to take advantage of existing resources such as funding opportunities, organizational capacity, and ongoing programs. Where gaps exist, knowledge sharing and technology transfer can be done across jurisdictions in order to share information and best practices. Providing jurisdictionally specific information also increases the utility and relevance to landowners and realtors.



Figure 2-3. The Landowner and Realtor Outreach Pilot Project aims to educate realtors and rural residential property owners about environmental issues. Photo credit: Frank Koshere, Wisconsin Department of Natural Resources.

Binationally, the project team has prepared a prototype binder organized into the following tabs:

- Introduction to the Lake Superior Watershed
- What Is In This Guide?
- Wells
- Septic Systems
- Waste Disposal
- Energy Conservation
- Wetlands
- Shorelines
- Habitat
- Stormwater
- Landscaping for Wildlife
- Other References
- Appendix

Each tab includes introductory information outlining the issue and its importance to Lake Superior and the LaMP. This is followed by jurisdictionally-specific information provided by local sources relevant to rural homeowners in the Lake Superior basin. This might include information from federal, provincial, or state agencies; local municipal or county governments; and non-government organizations. The introductory information for each tab is currently in a draft stage.

Ontario

In Ontario, an environmental non-government organization called Green Communities Canada is already implementing an outreach program called Well Aware that is targeted at landowners and realtors. The program addresses many of the same environmental issues that are a priority for the Lake Superior LaMP. The program is implemented at the community level through trained Well Aware service providers who conduct home visits and community forums in their community. In the Lake Superior basin, the only Well Aware service provider is a non-government organization called EcoSuperior that serves the Thunder Bay community.

In support of the Landowner and Realtor Outreach Project, the Ontario Ministry of the Environment has provided EcoSuperior with funding to increase the capacity of the existing Well Aware program. Between September 2007 and March 31, 2008, EcoSuperior will be conducting additional home visits, hosting a community forum in Kakabeka Falls, and undertaking research, review, and development of content for three sections of the binder for completion by March 31, 2008: Shorelines, Burning Garbage, and Household Hazardous Waste. The latter two topics correlate with the Waste Disposal tab in the prototype binder.

EcoSuperior has recently completed 54 Well Aware visits in the Thunder Bay area. Additional home visits will resume in the spring when the climate is more reliable. In March 2008, EcoSuperior held a free information and education night on wells and septic systems in Thunder Bay. This location was chosen based on overwhelming interest in a similar Realtor's Forum held there in June 2007.

Both Well Aware and the additional work for this project have been funded by Ontario Ministry of the Environment. Environment Canada provides in-kind support for the project through the involvement of two staff on the project team.

Minnesota, Wisconsin and Michigan

All three states have participated in the Landowner and Realtor Outreach Project. The Minnesota Pollution Control Agency has contacted local governments for input to the concept, and local government landowner guides have been incorporated in the draft Minnesota version of the binder. Wisconsin supports both the concept and their Lake Superior partners in the project.

The Superior Watershed Partnership, based in Michigan, has worked with the Landowner and Realtor Outreach Project team and is seeking to implement the project in all of the Upper Peninsula counties, not just those in the Lake Superior basin.

2.3 MAKING A GREAT LAKE SUPERIOR 2007 CONFERENCE

From October 28 to 31, 2007, the *Making A Great Lake Superior 2007* conference was held at the Duluth Entertainment and Convention Center in Duluth, Minnesota. Sponsored by US EPA GLNPO, Environment Canada, and Minnesota Sea Grant, the purpose of this significant conference, the first of its kind since 1990, was to allow researchers, land and resource managers, educators, and basin residents to participate in interdisciplinary discussions about the status and successes of Lake Superior as well as challenges and critical issues of importance facing Lake Superior.

The conference was co-chaired by Environment Canada and US EPA, with support from the Lake Superior Task Force, the Work Group, and the Binational Forum of the Lake Superior Binational Program. The conference incorporated presentations from individuals, organizations, governments, academics, non-profits, and citizen groups involved in research, educational activities, or management in the Lake Superior watershed. Conference participants included:

For more detailed information about the *Making A Great Lake Superior 2007* conference, please see Addendum 2C or www.seagrants.umn.edu/superior2007/. Please also refer to Appendix E of LaMP 2008.

- Researchers;
- Educators;
- Government agencies;
- Tribes and First Nations;
- Communities;
- Citizen groups;
- Business and industry;
- Students; and
- Local governments.

This conference provided a significant opportunity to raise awareness about, and educate and engage people in, the Lake Superior Binational Program. The conference format included plenary and break-out sessions, a trade show exhibit and poster area, an awards banquet, field trips, and public events on climate change.



Figure 2-4. The *Making a Great Lake Superior 2007* conference in Duluth, Minnesota, included a kite making session (from recycled materials). Photo credit: Elizabeth LaPlante, US EPA.

The conference attracted over 450 binational participants from around the Lake Superior basin and beyond. A special effort was made to include teachers. Thirty-three teachers attended, most of whom received scholarships, with many more on the waiting list. The teachers received continuing education credits for their participation.

The conference included a facilitated session on Education and Outreach. The session was co-chaired by Environment Canada and US EPA.

One of the most significant ways the conference engaged participants in the Binational Program was by adopting an environmental statement to reduce the overall environmental impact of the conference and respect the spirit of the Lake Superior Zero Discharge Demonstration Program. Specifically, the mission statement stated:

***Making a Great Lake Superior 2007** pledges to reduce the impact to the air, water, and land of the Lake Superior Basin from the transportation, energy demand, and waste created by planning and attending this conference. To this end, **Making a Great Lake Superior 2007** will reduce the overall impact of the conference and respect the spirit of the Lake Superior Zero Discharge Demonstration Program to eliminate the release of toxic substances in the basin, through a pollution prevention approach to all aspects of the conference including:*

- *Offsetting all unavoidable carbon emissions through the implementation of a carbon neutral strategy;*
- *Decreasing the amount of waste produced by the conference;*
- *Reducing energy and water consumption;*
- *Disposing of waste in an environmentally responsible manner; and*
- *Eliminating the use of harmful chemicals at the event.*

The venue made significant efforts toward these goals by providing a food service plan that emphasized locally grown, produced, and when possible, organic products. Over 60 percent of all the food products served at the conference were locally produced. Other waste minimization efforts included recyclable products, dishware, food waste minimization, and composting. The conference web site was used to promote group transportation options, disseminate conference information paper-free, and to broadcast web casts for those unable or unwilling to travel. Participants were encouraged to use sustainable transportation to and from the event, and to bring their own name tag. Awards were provided in both of these categories.



Figure 2-5. Members of the Lake Superior Task Force learned about habitat studies on Isle Royale National Park, MI, in June 2007. Photo credit: Roger Eberhardt, Michigan Department of Environmental Quality.

An evaluation survey was conducted by email following the event in order to quantitatively and qualitatively capture participant feedback and to measure satisfaction. The response rate was 70 percent (281 responded of 402 participants). Below is a summary of the results:

- 97 percent rated their conference experience as good or excellent;
- 86 percent have already used or plan to use information from the conference in the future;
- 66 percent rated the Climate Change session as very useful and were interested in having it as a topic at the next conference;
- 85 percent stated the conference was somewhat or very effective at fostering dialogue and information sharing between researchers, educators, and managers;
- 71 percent felt that the green aspects were very important (another 22 percent stated that it was somewhat important);
- 95 percent recommended a Lake Superior conference be held on a regular basis, with over 81 percent stating that they would attend; and
- Networking was an important part of the conference experience, and the event facilitated interactions between researchers, natural resource managers, and educators.

For more detailed conference evaluation results, please refer to Appendix F of LaMP 2008. Conference results are also available at <http://www.seagrant.umn.edu/suprior2007/>.

More information on the conference can be found in Addendum C.

2.4 CONCLUSION

The partners involved in the Lake Superior Binational Program have many ongoing outreach, education, and communication activities. The partners believe that these will meet the objectives of informing and educating the public about the program, involving the public in the decision-making process, and educating and motivating stakeholders into action. These agencies are mindful that involvement by people representing a wide range of interests is essential to the success of the Lake Superior Binational Program. Public input and support will help ensure that actions recommended in the program are carried out, leading the way to restoring and protecting Lake Superior.

ADDENDUM 2A: LAKE SUPERIOR BINATIONAL FORUM ACCOMPLISHMENTS: 2005-2007

The Lake Superior Binational Forum is a citizen stakeholder group comprised of 24 U.S. and Canadian volunteers working together to provide input and analysis to governments on critical issues. The members also develop strategies to educate the public about how to protect and restore the natural environment of Lake Superior.

During 2005-2007, the Forum accomplished the following milestones:

1. The Forum Participated in the *Making a Great Lake Superior 2007* Conference

The Binational Forum helped organize and conduct the following programs and sessions at the *Making a Great Lake Superior 2007* conference held on October 29-31, 2007, in Duluth at the Duluth Entertainment and Convention Center:

- Members of Planning Committees
Forum members participated on the Executive, Steering, Sessions, Communications, and Outreach committees since late 2006 to help define the overall agenda, set goals, recruit speakers, plan session content, and develop a communications plan.
- Moderators and Speakers at Special Sessions
In cooperation with Work Group members, Forum members facilitated or presented at three special topic sessions: watershed stewardship, environmental and economic sustainability, and a facilitated workgroup on education and outreach.
- Kite Making Workshop
To highlight the main message for Lake Superior Day 2008, several Forum members and volunteers from Northland College (Ashland, Wisconsin) joined Phil Kucera, a kite maker and artist from Ironwood, Michigan, to make kites at the Great Lake Aquarium on the Sunday afternoon before the 2007 conference. The purpose of the workshop was to show how clean energy sources such as the wind contribute to better water quality. Approximately 130 kids and adults made kites at the workshop.
- Art Gallery
A Forum member recruited about 25 artists from around the basin whose visual media represented the aesthetic, spiritual, historical, and cultural aspects of the lake through paintings and photographs, sculptures, and movies. Works by the artists were displayed in



Figure 2-6. Children learned to make kites from recycled materials at the *Making a Great Lake Superior 2007* conference. Photo credit: Elizabeth LaPlante, US EPA.

an art gallery designed and built for the conference, as was a movie theatre that offered films about the lake.

- Local Elected Officials Lunch

The Forum often partners with local elected officials during its meetings in host communities around the lake each year. To increase collaboration with these officials, the Forum partnered with the Great Lakes and St. Lawrence Seaway Initiative to host a lunch and informal meeting to share resources and needs. Mayors, town and county board chairs, tribal leaders, and local government department chairs met together on the last day of the conference to learn about lake issues, local concerns and needs, and how to work together in the future.

2. Environmental Stewardship Awards Program

In collaboration with the Lake Superior Work Group (LSWG) in 2004, the Forum initiated an annual Environmental Stewardship Awards Program to recognize outstanding contributions that help restore or protect the basin's natural environment. Recipients in both the U.S. and Canada were selected from five categories for their innovative or ongoing activities: Youth; Adult Individual; Business, Industry, and Community; Organization; and Tribe/First Nation.

The winners in the last two years were:

In the U.S.:

- Youth – Deb Ganz-Brown's and Laurie Schmidt's 2002 6th grade classes, Pattison School, Superior, Wisconsin (2006);
- Adult Individual – Mary Rehwald, Ashland, Wisconsin (2006); a tie with Bob Olsgard, Spooner, Wisconsin, and Jill Jacoby, Duluth, Minnesota (2007);
- Business – Conservation Technologies, Duluth, Minnesota (2006); Septic Pumping, Ashland, Wisconsin (2007);



Figure 2-7. Jill Jacoby holds her award for being named a U.S. winner of the 2007 Lake Superior Binational Program Environmental Stewardship award for outstanding actions taken by an individual to protect Lake Superior. The "beachscape," handmade artwork with sand and driftwood, was created by Washburn, Wisconsin, artist Jim Radtke (left), and presented to Jacoby by U.S. Co-chair of the Lake Superior Binational Forum Bruce Lindgren (right). Photo credit: Lissa Radke, Northland College.

- Industry – A two-way tie between (1) Memorial Medical Center, Ashland, Wisconsin, and (2) Sappi Cloquet LLC, Cloquet, Minnesota (2006); CG Bretting Manufacturing Company, Ashland, Wisconsin (2007); and
- Community/Organization – A three-way tie among (1) Earth Keepers, Upper Peninsula, Michigan; (2) “A View from the Lake,” a joint Minnesota Sea Grant and University of Wisconsin-Extension project; and (3) Cities for Climate Protection, Duluth, Minnesota (2006); Lake Superior Streams (2007).

In Canada:

- Youth – Anishnabek of the Gitchi Gami, Thunder Bay, Ontario (2007);
- Adult Individual – Jake VanderWal, Thunder Bay, Ontario (2006); Karin Grundt, Wawa, Ontario (2007);
- Business – First Nations Issues (2006); and
- Community/Organization – Zero Waste Action Team, Thunder Bay, Ontario (2006).

The winners and honorable mention recipients for each year since 2004 can be found on the Forum’s web site at www.superiorforum.info.

3. Lake Superior Day

The Forum wanted to elevate the visibility of Lake Superior issues by promoting a celebration of the lake’s importance, uniqueness, and beauty. An annual Lake Superior Day is now held throughout the basin on the third Sunday in July.

The purpose of Lake Superior Day is to educate residents about their role as trustees of the lake by encouraging them to make thoughtful behavioural choices that eliminate pollution and foster sustainable lifestyles. Lake Superior Day encourages people to pledge to care for the basin’s natural resources and to appreciate the lake’s unique ecosystems.

The main messages have been to educate the public about the LaMP and successful implementation of LaMP goals and to promote sustainable activities that reduce impacts on the lake. Target audiences



Figure 2-8. Barbara Kerkove, a junior majoring in graphic design and biology at Northern Michigan University, created this Lake Superior Day logo in 2007 to symbolize the annual event. Kerkove's design was chosen from almost 30 others entered in a design contest held by the university's Art and Design Department.

have included local elected officials, libraries, environmental groups, anglers and recreational boaters, chambers of commerce, and churches.

The Forum developed a web site that describes activities and events that people can organize in their communities. The day is promoted through special buttons, post cards, placemats, flyers, newspaper ads, and press releases. About 45 groups have organized events for these annual celebrations. For example, several churches in the Chequamegon Bay, Wisconsin, area offered ‘blessing of the water’ services, beach clean ups, special sermons, and potluck meals. A partnership of the Cedar Tree Institute, Superior Watershed Partnership, and area musical groups held a free public concert in Marquette that included a dance, new music composed specially for the event, and a chamber orchestra.

For a list of previous year’s events as well as activity ideas, visit the Forum’s web site at www.superiorforum.info.

4. Public Input Sessions

One of the Forum’s main functions is to serve as a link between the general public and the government agencies that are managing the lake. By holding open meetings in at least four host communities per year and soliciting comments about issues, the Forum can learn what the public wants and needs. The Forum shares this feedback with members of the Lake Superior Binational Program, which uses the feedback to help shape policy regarding lake management strategies.

To enhance this role, in 2004 the Forum initiated a public input session to be held at each of its quarterly meetings. These sessions allow open exchanges between specialists and the public. Time is spent at each session to collect comments from citizens about concerns regarding environmental issues in the Lake Superior basin. The following sessions were held around the lake during 2005-2007:

- February 2005 – Stream restoration in the Upper Peninsula (Marquette, Michigan);
- May 2005 – Impacts of the shipping industry on the lake (Sault Ste. Marie, Ontario);
- September 2005 – Native American/First Nations protection and restoration programs (Grand Portage, Minnesota);
- November 2005 – Citizen Science: Volunteer water quality monitoring opportunities (Thunder Bay, Ontario);
- March 2006 – Mining in the Lake Superior basin: trends and issues (Hibbing, Minnesota);
- May 2006 – Land use in Ontario (Marathon, Ontario);
- September 2006 – Successful Lake Superior protections/restorations in Marquette & the Upper Peninsula (Marquette, Michigan);

- November 2006 – Emerging concerns regarding pharmaceuticals and personal care products in our water (Thunder Bay, Ontario);
- January 2007 – Taking Natural Steps into economic and environmental sustainability (Ashland, Wisconsin);
- May 2007 – Sustainability and impacts of waterfront development (Thunder Bay, Ontario); and
- September 2007 – Sustainability in resource industry: best practices (Wawa, Ontario).

5. The Forum continues to provide input and analysis to governments about LaMP implementation

In addition to holding workshops and public input sessions, the Forum has also written numerous letters to various government representatives about different environmental issues having the potential to negatively impact the Lake Superior ecosystem.

The Forum also worked on two other joint projects with the LSWG: a mercury reduction mentoring program and a monitoring database development project.

Mercury Reduction Mentoring Program

The initial mercury reduction program for Lake Superior was undertaken in Canada between September 2005 and March 2006 as a result of recommendations from a September 2004 joint industry-government-Forum meeting which included providing advice to industry on mercury reduction through industry peers. A contractor, Don Murray, was hired in this capacity.

Of the companies initially contacted by the contractor, three facilities had recently shut down and one was on strike. Of the 15 operating facilities contacted, 10 consented to host a workshop and two were interviewed about the extent of their mercury reduction programs. Seven companies have sent letters to the contractor committing to take part in the mercury reduction program.

Environment Canada will continue to fund this project through 2008.

Objectives for 2007-2008:

1. Fulfill follow-up obligations from the 2005-2006 mercury mentoring project with companies who made commitments to the project;
2. Extend the mercury mentoring project to include facilities that were unwilling/unable to participate in the initial project where possible; and
3. Improve on the workshops and program initiated in the 2005/2006 project by building on the lessons learned from it.

The Forum has played an important role in this joint project with the LSWG by contacting representatives in the industrial and municipal government sectors to invite them to learn how to identify mercury-containing equipment and devices in their facilities, how to dispose of them

safely, and how to purchase mercury-free devices. The Forum is helping to serve as the mentor and motivator to new participants and sectors that have not yet conducted this kind of inventory and replacement process.

To participate jointly in the LSWG's focus on monitoring since 2006, the Forum has been conducting a search of Michigan, Minnesota, and Wisconsin to find all private, corporate, municipal, tribal, and non-profit organizations' natural resource monitoring programs at the local, regional, and state levels. The Forum is developing an inventory of who is monitoring which indicators in what region, and will produce a map of these programs.

Based on this list and map, the Forum will conduct a gap analysis of indicators that are missing and where monitoring is needed. Although the Binational Executive Committee (BEC) has developed a database of state, federal, and provincial monitoring programs, the Forum's focus will be on non-governmental efforts. This joint investigation of who is monitoring what elements in an ecosystem will help produce a comprehensive overview of Lake Superior monitoring efforts.

6. Involving Youth in Leadership Activities

The Forum's Outreach Committee is seeking greater youth involvement in Forum activities. The Forum has organized a model monitoring assessment program to involve college and university students from around the basin, together with their faculty mentors in exploring, evaluating, and expanding the citizen science movement around the basin. Northern Michigan University (NMU) in Marquette has expressed support for this program; Forum members are working with the NMU interdisciplinary Environmental Science Program to develop details and funding sources.

ADDENDUM 2B: PATHFINDERS PROJECT UPDATE

Lake Superior Pathfinders launches its 4th year of programming with exciting additions!

The Lake Superior Pathfinders program of the Sigurd Olson Environmental Institute at Northland College now offers three distinct residential summer experiences for young people to learn more about Lake Superior. Using the Lake as a living classroom, students learn through experiential, life-changing experiences!

Making Waves is a new program for students in grades 6-9. Partnering with the Conserve School in Land O' Lakes, Wisconsin, and Northland College in Ashland, Wisconsin, the program focuses on aquatics both inland and on Lake Superior, and is designed to assist students in learning about and discovering aquatics. Making Waves also enhances students' knowledge through activities that examine real strategies to sustain healthy lake communities, and by developing skills to become better environmental stewards.

Lake Superior Pathfinders continues to offer an Environmental Leadership and Social Justice program to students in grades 9-12. The Pathfinders program assists participants in learning more about their own leadership styles through such tools as low and high ropes challenge courses, climbing walls, and on-the-water experiences. After attending the program, participants understand critical Lake Superior issues, as identified by the Binational Program.

The Lake Superior Navigators program is designed for those students who have attended Pathfinders, or have exceptional leadership experience in grades 9-12. Participants network with other amazing leaders and develop relationships and build capacity through focused experiential activities, exceptional speakers, and skill sharing. They explore community sustainability and leadership concepts by engaging in community service projects in the Ashland area.

All programs are taught by Northland College professors, professional educators, Sigurd Olson Environmental Institute staff, Chippewa tribal elders and educators, community leaders, and field counselors.

To date, Pathfinders has had 266 participants, and educated over 7800 students through school visits and events. Pathfinders serves as a potential model to be instituted around Lake Superior and the Great Lakes basin.

Information on this program can be found at www.northland.edu/pathfinders.

ADDENDUM 2C: Making a Great Lake Superior

The “Making a Great Lake Superior 2007” Conference started with a bang and smoke, or more precisely, the throb of drumming and an Ojibwe pipe ceremony. Designed to increase collaboration among people and organizations that are invested in Lake Superior’s well-being, the conference exceeded organizers’ expectations with 450 attendees. “Making a Great Lake Superior,” which spanned the last three days of October in Duluth, Minn., attracted scientists, government officials, natural resource managers, educators, the media, and citizens from around Lake Superior.



“We’re incredibly pleased with the momentum this conference generated,” said Jesse Schomberg, Minnesota Sea Grant’s coastal communities educator, who took a major role in organizing the conference on behalf of the Great Lakes Sea Grant Network and with the help of the U.S. Environmental Protection Agency (Liz LaPlante and Janet Keough), Environment Canada (John Marsden), and others. “The feedback has been terrific. A lot of important, useful, and diverse information about Lake Superior was exchanged.”

Polar Explorer Will Steger and Minnesota Governor Tim Pawlenty answer reporters’ questions about global warming at a news conference during the “Making a Great Lake Superior 2007” Conference.

The conference focused on 12 priorities including human health, invasive species, Areas of Concern, and fisheries. Climate change and the most recent Lake Superior research findings grabbed headlines due to their emphasis during the conference and two media briefings. During one briefing, Minnesota Governor Tim Pawlenty stood beside polar explorer Will Steger to announce their plans to tour the state together talking about global climate change’s impacts and advocating for solutions.

In the other briefing, three Lake Superior experts gave reporters sweeping overviews of contaminants, fisheries, and research opportunities before hustling across the hall to deliver a more in-depth address to a full audience of conference attendees. Deb Swackhamer, professor of environmental



Families fly kites made from homemade materials off the deck of the Great Lakes Aquarium in Duluth. The event was one of several free pre-conference opportunities open to the public.

chemistry at the University of Minnesota said, “I’m going to tell a story about the ghosts of contaminants past.” After talking about lingering legacy pollutants like PCBs, DDT, and toxaphene, she said that the impacts of today’s chemicals are harder to see and measure, which makes studying them more challenging.

Mark Ebener, fishery assessment biologist with the Inter-Tribal Fisheries and Assessment Program, told reporters that fish, especially whitefish and lake herring (cisco), are thriving in Lake Superior. He called it a “siscowet lake, not a lean trout lake” despite noting that it probably contains more lake trout now than it did in the 1920s -- the heyday of the trout fishery.

Carl Richards, director of the U.S. Environmental Protection Agency’s Mid-Continent Ecology Division, faced the press to describe how advances in technology, like robotic sensors, have significantly changed the way research is conducted. “We can move beyond educated guesses,” he commented. “The types of questions we can ask have changed, and how we look at questions has changed.”

Several facets of the three-day conference broke the confines of tradition. One was the deliberate effort to mix science, management, policy, and education perspectives. Another was the emphasis put on “greening” the meeting and the venue. Conference organizers sought to reduce the resources required to transport, feed, and inform participants. The Duluth Entertainment and Convention Center staff served local and when possible, organic, food; recycling and composting continued as habit. After calculating the amount of carbon consumed beyond the daily norm for 450 people, the conference organizers intend to purchase 75 tons of carbon credits. The credits will go toward alternative energy projects including a solar array, wind turbines, and methane production from dairy farms and wastewater treatment plants. This \$900 offset should push the conference beyond carbon neutral to carbon negative.

Several participants even won awards for their efforts to attend the conference in a sustainable manner.

Small Footprint Award (for farthest sustainable modes of travel)

- John Jereczek, Roller-skied 5 miles
- Julene Boe, Walked 1 block (judges erred thinking “1” meant “1 mile”)
- Matt Hudson, Biked 140 miles round trip

Reuse Award (for inventive reuse of nametags)

- Marnie Chauvin
- Ann McCammon-Soltis
- Gary Gulezian
- Carri Lohse-Hanson

During the ceremony, the Lake Superior Binational



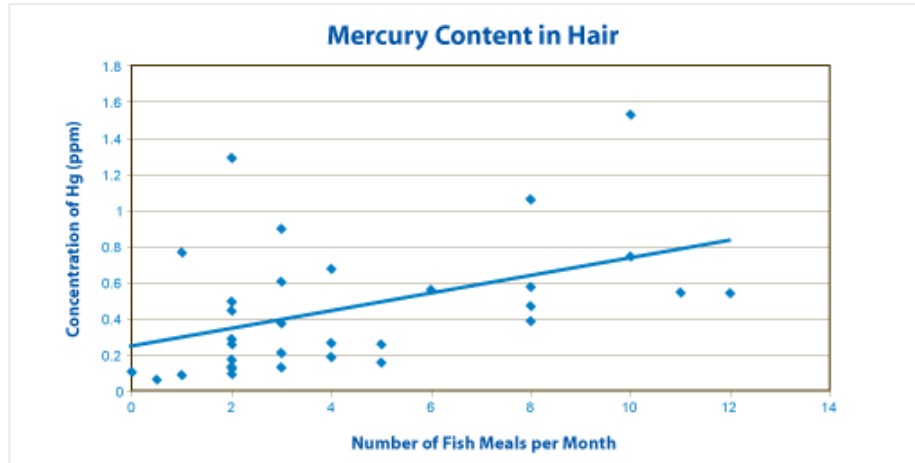
Carri Lohse-Hanson snips a sample of Minnesota Sea Grant Editor Sharon Moen’s hair for mercury testing.

Program also honored Jake Vander Wal from Thunder Bay, Ont., with a Lifetime Achievement Award and acknowledged their Environmental Stewardship Award recipients.

In addition to an art exhibition, vendor booths, poster and oral presentations, and think-tank sessions on topics such as research directions and management issues, 30 conference-goers left with an estimate of their mercury load. In exchange for a chunk of hair and information on the number of fish meals eaten per month, Carri Lohse-Hanson of the Minnesota Pollution Control Agency showed that people who consume more fish tend to have higher concentrations of mercury in their hair, which is consistent with more scientific studies.

The consensus of the presenters and attendees seems to be that people need to remain vigilant about protecting Lake Superior from the consequences of coastal development, invasive species, and climate change.

“I feel that people left the conference with a new energy and new sense of urgency,” said Schomberg. “Achieving our regional -- let alone global, environmental, and economic goals -- requires both.”



The Minnesota Pollution Control Agency reports that 30 conference participants, who consumed an average of 4.3 fish meals per month, had an average of 0.45 parts per million (ppm) of mercury in their hair. Although the health threshold for mercury levels is debated, the U.S. EPA sets the bar at 11 ppm.

Visit the conference Web site (www.seagrant.umn.edu/superior2007) in the coming months to find out what participants had to say about their experience at the “Making a Great Lake Superior” Conference.

Source: Moen, S. 2007. Making a Great Lake Superior. Minnesota Sea Grant. Available at http://www.seagrant.umn.edu/newsletter/2007/12/making_a_great_lake_superior.html. Reprinted with permission.