

## Chapter 7

# **Developing Sustainability in the Lake Superior Basin: 2008 Progress Report**



Ice ridge mirage at sunset. Photo credit: Frank Koshere,  
Wisconsin Department of Natural Resources.

Lake Superior Lakewide Management Plan 2008



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## **Chapter 7**

# **Developing Sustainability in the Lake Superior Basin**

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### **7.0 INTRODUCTION**

Through its Lakewide Management Plan (LaMP), the Lake Superior Binational Program (LSBP) is seeking, promoting, and implementing sustainable development approaches that work toward a restorative Vision for Lake Superior—approaches that will ensure the sustainability, or the capacity for continuance into the long-term future, of the basin’s natural and human systems and institutions.

This chapter update:

- Reviews sustainability initiatives and activities conducted by the Sustainability Committee between April 1, 2006, and March 31, 2008;
- Highlights some of the challenges; and
- Ties current initiatives and challenges to future initiatives for sustainability in the Lake Superior basin.

### **7.1 SELECTED ACTIVITIES**

The projects highlighted below represent a sample of sustainability activities recently pursued by the committee, as well as independent community-based initiatives that complement Superior Work Group efforts regarding regional sustainability.

#### **7.1.1 Aboriginal Community Awareness Review and Development**

One significant success is the completion of the Aboriginal Community Awareness Review and Development Project (CARD) in the Canadian portion of the Lake Superior basin. The goal of the project was to better understand the attitudes and awareness of basin residents regarding local sustainability and environmental issues. Thirteen non-Aboriginal communities in both the U.S. and Canada were surveyed in 2005, and since then the Sustainability Committee has surveyed the Canadian Aboriginal communities of Fort William, Pays Plat, Biinjitiwabik Zaaging Anishnabek (Rocky Bay), and Pic River First Nations. Results of the Aboriginal CARD survey indicated that environmental issues ranked behind the top priorities of housing, employment, health, and education. However, most communities ranked water among their top three most important environmental issues. They expressed high levels of concern regarding the impact of industrial activities, tourism, and other development on traditional activities, habitat and wildlife, burial grounds, sacred sites, artifacts, and medicinal and traditional plants. They also identified the lack of recycling opportunities and the burning of garbage as concerns. Future initiatives targeted at Canadian Aboriginal communities will have to include multiple, diverse community benefits; take a holistic approach to addressing environmental, social, and cultural issues using water and land use as priority areas for action; and more personally engage the communities.



Figure 7-1. Water was ranked among communities' top three most important environmental issues in the Aboriginal CARD survey. Photo credit: Frank Koshere, Wisconsin Department of Natural Resources.

The information found in the Aboriginal CARD, like the information gathered as part of the two non-Aboriginal CARD projects conducted in 2005 in Canadian and American municipalities, towns, and cities, is meant to inform and influence the design and implementation of future Superior Work Group initiatives.

### 7.1.2 TRACKing of Community Sustainability

The **TR**ACKing of **C**ommunity **S**ustainability (TRACS) project is a joint initiative between the Lake Superior Binational Forum (the Forum) and the Sustainability Committee. The Forum is compiling community-based sustainability initiatives in five target communities around the lake, including: Ashland area in Wisconsin; Duluth, Minnesota; Marquette, Michigan; Thunder Bay, Ontario; and Wawa, Ontario. The TRACS inventory will assist the LSBP in determining the extent to which LaMP goals and objectives are met and, ultimately, whether Lake Superior residents are moving towards, or away from, sustainability.

In addition to allowing for the tracking of overall sustainability efforts in the Lake Superior basin, the TRACS project:

- Acts as a corporate memory for the Superior Work Group and the Forum's sustainability efforts;
- Assists the Superior Work Group and the Forum in communicating sustainability initiatives and contacts to interested organizations and citizens around the basin;

- Cultivates awareness of the benefits of sustainable living among citizens, organizations, and communities;
- Catalyzes civic action toward sustainability;
- Promotes partnerships for sustainability;
- Serves as a repository of success stories available to the media;
- Demonstrates how various initiatives can function within and in parallel to the regulatory system; and
- Forms the basis for future “Keepers of Sustainability” Map series (see Section 7.3, Next Steps).

To date, the Sustainability Committee has defined criteria for identifying appropriate actions and programs, and data has begun to be entered into the TRACS database. The database will be completed in 2008.

### 7.1.3 Sustainability Session at the Lake Superior Conference

In collaboration with the Forum, the Sustainability Committee shepherded a one-day sustainability session at the *Making a Great Lake Superior 2007* conference held in Duluth, Minnesota, in October 2007. Titled *Sustainability: A Superior Paradigm for Reframing Knowledge* (SPaRK), the session achieved the following outcomes:

- Increased awareness and knowledge of sustainability challenges and opportunities facing Lake Superior and basin communities. Some identified needs include:
  - Marked improvement and creativity in the arts of citizenship and governance. In other words, sustainability requires effective institutions of governance and a well-informed, democratically engaged citizenry.
  - More accurate models and descriptions to describe the human enterprise in relation to the earth.
  - Enhanced awareness and education for sustainability. This means a society which not only understands its place within larger cycles and trends, but one with the education and skills appropriate to make sustainable living a reality.
  - To learn how to recognize and solve divergent problems, or problems that cannot be solved by logic and method alone.
- Broadened understanding of plans and ideas to track community and basin sustainability.
  - Awareness that any sustainability approach should consider adopting a systems approach to sustainable development.
- Enhanced awareness and understanding of proven and effective approaches to successfully move communities toward sustainability.
  - The next wave of community economic development will, hopefully, have sustainability as its ultimate goal, and will be driven by sustainable development and systems thinking. It will employ a number of strategies, including eco-municipalities, localization, ecosystem services valuation, sustainable agriculture and local food systems, sustainable tourism, and eco-industrial developments.

### 7.1.4 Toward A Sustainable Community: A Toolkit for Local Government

In conjunction with “1000 Friends of Wisconsin” and with the help of “Focus on Energy,” the University of Wisconsin Extension faculty (educators and specialists agents) in Madison, Stevens Point, Superior, Ashland, Barron, and Shawano County co-authored *Toward A Sustainable Community: A Toolkit for Local Government*. The purpose of this toolkit is to provide ideas and descriptions of specific actions that a local government can take to transform itself into a model of sustainable practices. These practices can result in cost savings and increased employment, and can enhance environmental quality and community well-being. The message of this toolkit is simple: local governments can lead by example. The toolkit is intended to address only the internal workings of local government. Specifically, it addresses sustainable approaches to energy, building, transportation, purchasing, investment, and hiring. It provides practical tools for making these functions of local government more supportive of long-term human and environmental health and well-being. It provides strategies that can be implemented through traditional means of policy development, fiscal administration, local government programs, and education.

The toolkit was distributed to all 72 University of Wisconsin Extension county educators (agents). Presentations were also given to different associations, for example the Wisconsin Chapter of the American Planning Association.

The toolkit is available at [www.shwec.uwm.edu/sustk](http://www.shwec.uwm.edu/sustk), and the live links in the document are available on the University of Wisconsin Extension, Solid and Hazardous Waste Education Center (SHWEC) web site as well, under publications.

### 7.1.5 Lake Superior Stewardship/Leadership School Project

The Sigurd Olson Environmental Institute at Northland College and the University of Wisconsin Extension, with help from the Otto Bremer Foundation, operates the Lake Superior Pathfinders program. This experiential learning program aims to develop local leadership skills among adults and youth in the context of Lake Superior basin issues, using sustainability as the overarching theme and a web-based curriculum that supports the needs of the Binational Program.

Through the Pathfinders program, students in grades 9-12 build leadership skills and confidence on low and high ropes courses and climbing towers, immerse themselves in the Lake Superior environment, explore estuaries, kayak to sea caves, and investigate the lake’s critical issues from social, environmental, and



Figure 7-2. Kayaking in the rain. Photo credit: Frank Koshere, Wisconsin Department of Natural Resources.



economic perspectives. They help haul fish nets and fish aboard the *Wolverine II*, a commercial fishing boat that trolls around the Apostle Islands, as well as interact with Chippewa tribal elders and educators as they share their culture along the lake and in sacred fishing and ricing waters.

Through the Lake Superior Navigators, students in grades 9-12 learn about the role research plays in Lake Superior by conducting research with the USGS Lake Superior Biological Station crew aboard the *Kiyi*, a 107 ft research vessel. They explore community sustainability and challenge leadership concepts by engaging in service learning projects in the Ashland area. Past projects have included working with Habitat for Humanity, gardening for a local domestic abuse shelter, creating a Lake Superior mural, and designing and airing a local radio show about critical Lake Superior issues.



Figure 7-3. Wading in the Amnicon River, Douglas County, Wisconsin. Photo credit: Frank Koshere, Wisconsin Department of Natural Resources.

Meanwhile, students in grades 6-9 become better environmental stewards by immersing themselves in the intriguing world of life in wetlands, marshes, ponds, and lakes through the Making Waves program. They explore unique lake environments, including Lake Superior's, each day through hands-on experiments and outdoor endeavors. Making Waves connects their experiences through activities that examine real strategies to sustain healthy lake communities. Students sleep under the stars on the shores of Lake Superior, meet new and exciting people, and wade the shallows of the wetlands.

A medium-term goal is to expand the Wisconsin Pathfinders program to other jurisdictions of the Lake Superior basin. For more information, please see Chapter 2 or visit [www.northland.edu/pathfinders](http://www.northland.edu/pathfinders).

### 7.1.6 Aboriginal/Tribal Cooperation

The Sustainability Committee supports environmental management/sustainability capacity for and between Tribes and First Nations through the building of relationships, sharing of information, and exploration of opportunities for Tribal/First Nations collaboration.

Completion of the Aboriginal CARD project represents an important first step toward developing sustainability in First Nations communities. The building of relationships, increased collaboration, and transfer of environmental skills and knowledge among the Grand Portage Reservation, Fond Du Lac Reservation, and the Anishinabek of the Gichi Gami, a citizen-based

environmental organization from Fort William First Nation, also represent a small but significant development.

Grand Portage Environmental staff have been working with Grand Portage Education and Information Technology staff (from Fort William) who are fluent in Ojibwe mowin to translate information for signs and a web page that are being designed to notify residents and visitors about the beach water quality in Grand Portage. Students from Grand Portage are designing the signs and developing the wording for the web page. A goal of this partnership is to develop a bilingual format for both the web page and signs to ensure that Grand Portage youth will see their work in both languages.

### **7.1.7 Ad Hoc Monitoring Committee**

In August 2006, a Lake Superior Monitoring and Decision White Paper explored options for ensuring that Lake Superior waters and watershed monitoring and research efforts are coordinated, integrated, readily available, and consistent with LaMP priorities and goals. In the fall of 2006, Terms of Reference for an Ad Hoc Monitoring Committee were drafted. The original purpose of the committee is stated below:

To be a “champion” for monitoring, assessment and reporting the status and trends of Lake Superior ecosystems and integrating information on stressors, socioeconomic factors, climate change, and other drivers with ecosystem information. This committee will coordinate with existing standing committees to cross-walk interests in monitoring and reporting on various aspects of the Lake Superior basin ecosystem.

The acquisition and integration of socio-economic data to ecosystem data will remain the Sustainability Committee’s primary interest in this committee.

### **7.1.8 Ad Hoc Mining Committee**

For the past number of years Sustainability Committee members have expressed an interest and concern in the increased level of exploration and mining activity witnessed throughout the Lake Superior basin. Sustainability Committee members have been involved, for example, in numerous environmental assessments, permit applications reviews, and toxics reduction efforts. In June 2006, a memorandum to the Superior Work Group by the Chippewa-Ottawa Resource Authority suggested that the ability of the LSBP and basin resource agencies to quickly link ecologically sensitive data to old, current, or potential ore bodies would protect critical habitat in the Lake Superior basin by enabling decision-makers to make wise decisions.

At the April 2007 meeting of the Superior Work Group held at Old Fort William Historical Park in Thunder Bay, Ontario, an Ad Hoc Mining Committee was charged with exploring proactive options to educate the public, agencies, and mineral exploration companies in general on the importance of protecting environmentally sensitive habitats. The Sustainability Committee decided that further discussion related to mining in the Lake Superior basin would best be addressed as part of the Ad Hoc Mining Committee.

The Ad Hoc Mining Committee held several conference calls during 2007, the last of which was well attended by representatives of the United States Geological Survey and Ontario Ministry of Northern Development and Mines. There is consensus that a GIS-based tool would be useful to decision-makers and may help to avoid damage to environmentally sensitive areas identified through the LSBP. The Province of Ontario already publishes information in map form, locating geology and current mine workings. The Ad Hoc Mining Committee has discussed the need to find funding to compile and extend that information to the U.S. side of the basin in the coming year. For additional details on the Ad Hoc Mining Committee, see Chapter 6, Section 6.2.1.



Figure 7-4. Hemlock needles surround an oak leaf in Lake Superior waters. Photo credit: Frank Koshere, Wisconsin Department of Natural Resources.

## 7.2 CHALLENGES

There are many sustainability challenges facing the Superior Work Group. Much work remains to be done to effectively protect and restore the Lake Superior ecosystem as well as to support the process of developing sustainability in the basin.

### 7.2.1 Building Capacity

Additional members, including their skill sets, are necessary to the committee's operations. For example, economic development councils/corporations can become real partners in demonstrating sustainability in the basin.

### 7.2.2 Adapting to a Fluid Political Landscape

Efforts to promote sustainability must deal with the constantly changing social and political landscapes within and outside the Lake Superior basin. Seizing upon opportunities in this landscape will be critical to success; for example, an economic recovery program could be the platform for sustainable jobs.

### 7.2.3 Defining, Promoting, and Implementing Sustainability

Sharing the concept of sustainability across the Lake Superior basin, and incorporating it into management decision-making by basin stakeholders, as well as increasing the number and diversity of stakeholders involved in sustainability discussions, remain significant challenges for the Sustainability Committee and the Binational Program.

The development and incorporation of sustainability principles into the daily decision-making processes and operations of organizations throughout the basin is progressing. This is illustrated, for example, by the emerging U.S. south shore eco-municipality movement (see Alliance for Sustainability box), the City of Thunder Bay's adoption of Environmental Principles to guide its corporate decisions impacting the environment, its development of a Community Environmental Action Plan through EarthWise Thunder Bay (see EarthWise Thunder Bay box), and the development of toolkits that provide local governments with ideas and descriptions of specific actions that they can take to transform themselves into models of sustainable practices.<sup>1</sup>



Figure 7-5. Lake Superior wave. Photo credit: Frank Koshere, Wisconsin Department of Natural Resources.

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<sup>1</sup> The toolkit is available at [www.shwec.uwm.edu/sustk](http://www.shwec.uwm.edu/sustk).



## Alliance for Sustainability – Sustainable Chequamegon Initiative

The Alliance for Sustainability (AFS) continued to strengthen and build support for its Sustainable Chequamegon Initiative (SCI) along the south shore of Lake Superior in Wisconsin. The SCI is the result of the efforts of many local residents who have embraced the principles of sustainability and see a bright future for the communities in which they live. AFS drafted an ambitious strategic plan in 2006 with support from many local community members. The plan outlines AFS' goals, objectives, and actions for achieving its sustainability vision. The plan gives AFS a strong document to help guide its activities over the next five years as it strives to develop a model for rural sustainable development. In addition to adopting a strategic plan, some of the many accomplishments of the SCI over the past two years include:

- The City of Bayfield and the Town of Bayfield joined the Cities of Ashland and Washburn in adopting eco-municipality resolutions based on the Natural Step framework. The resolutions commit the governments to implement practices of sustainable community development whenever possible in their planning, policy making, and municipal practices.
- AFS hired a full-time staff person to coordinate its efforts in the Chequamegon Bay region, and the City of Ashland donated space at its Vaughn Public Library for AFS to have an office.
- AFS received a three-year grant from the Bremer Foundation to start a Green Team Network of Early Adopters of Sustainability. The Network provides local businesses, schools, industries, tribes, governments, and institutions a time and a place to develop and implement action plans to become more energy efficient. It provides a way to connect these entities to each other and to services available to them to reduce their carbon footprints and ultimately improve their bottom lines. The Network began in 2007 with 10 members, and as of early 2008, it includes 17 businesses, municipalities, institutions, and local governments.
- AFS conducted "Campaign Sustain" during the summer of 2007 with donations from several foundations, individuals and businesses. The theme of the project was "what one household can do." Four interns knocked on over 4,000 doors in six local communities, handing out compact fluorescent lightbulbs (CFLs) to any resident who unscrewed and handed over their most frequently used incandescent bulb. They also handed out free bus passes, rebate coupons for additional CFLs, and refrigerator magnets with 10 tips to save money by reducing energy usage. The impact of Campaign Sustain was estimated at a \$7200 savings to local residents through reduced energy demand, 40 tons of coal saved, and a reduction of 960,000 kilowatt hours of electricity demand per year.
- AFS is sponsoring a Wisconsin Sustainable Business Conference in April 2008 in Ashland, WI.



Alliance for Sustainability presentation (left) and member discussions (right). Photo credit: Alliance for Sustainability.

## EarthWise Thunder Bay

EarthWise Thunder Bay ([www.earthwisethunderbay.com](http://www.earthwisethunderbay.com)) began in the summer of 2004, when the City of Thunder Bay committed to develop a Community Environmental Action Plan (CEAP) to promote a sustainable, healthy environmental community. The CEAP supports a number of resolutions already passed by City Council with the end goal of reducing greenhouse gas (GHG) emissions within the City of Thunder Bay.

The first step toward a sustainable community was the development of an Environmental Policy, which was developed in 2005 through the collaboration of community partners, citizens, and the EarthWise Steering Committee. This Environmental Policy established a foundation of 10 Environmental Principles that offer general guidance for corporate decisions affecting the environment, including: energy conservation; meeting applicable environmental legislation and regulations; using the best available technology economically feasible; re-use and recycling of resources; communicating with stakeholders; supporting environmental education; participating in community initiatives; community environmental action planning; applying the precautionary principle; and strengthening green procurement commitments. The policy requires the city to produce, on an annual basis, an Environmental Progress Report highlighting its progress towards sustainability.

In February 2008, in conjunction with the City of Thunder Bay and ICLEI Energy Services (IES), EarthWise completed its GHG emissions inventory and forecast for the city's operations and for the Thunder Bay community as a whole. EarthWise will integrate this report into its planning for the CEAP, and will present both to the City Council in 2008.

Currently, EarthWise is looking for public input and involvement in a number of working groups—each of which are focusing on specific issue sections of the CEAP. The CEAP will be instrumental in delivering a healthy biophysical and socioeconomic environment to the citizens of Thunder Bay and in creating a more comprehensive, systems-oriented framework for municipal operations.

### 7.3 NEXT STEPS

In conjunction with the Superior Work Group, the Sustainability Committee will be discussing a more comprehensive sustainability framework for the next major LaMP review and revision.

#### 7.3.1 Encouraging Societal Involvement in LaMP

To promote a systemic approach to change in the basin, the LSBP must reach out to businesses, industries, municipalities, educational institutions, not-for-profit organizations, and youth. We will encourage the creation of physical and/or virtual spaces for residents to assemble (videoconferencing, webinars, mini Lake Superior learning events, social virtual networks such as Facebook or My Space, etc.) are other ideas that should be explored by the Superior Work Group and the Forum.

#### 7.3.2 Draft LSBP Green Meeting Strategy

To reduce impacts to the air, water, and land of the Lake Superior basin from the transportation, energy demand, and waste created by planning and attending face-to-face meetings of the LSBP, the Sustainability Committee and the *Making a Great Lake Superior 2007 Green Team*

(<http://www.seagrant.umn.edu/superior2007/statement/>) plan to draft a Green Meeting Strategy. The intent is that organizers of Forum, Superior Work Group, and Task Force meetings will make every effort to reduce the footprints of each event as per the Green Meeting Strategy. Tools and templates will be developed collaboratively to help implement the strategy.

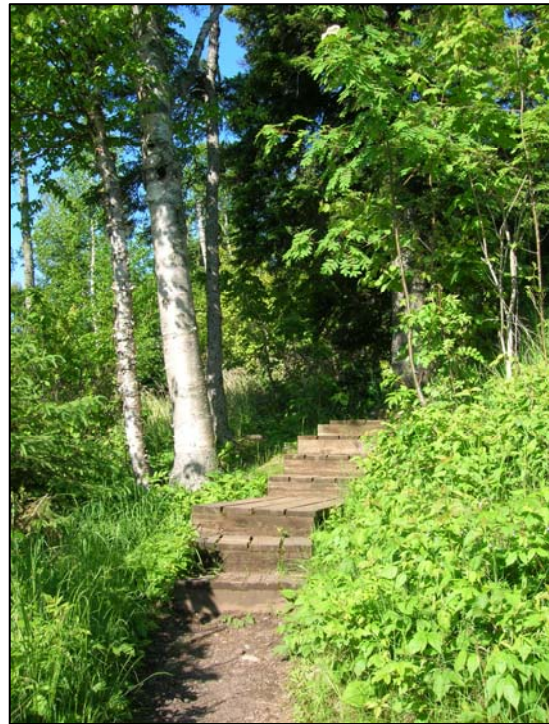


Figure 7-6. Top of Shovel Point. Photo credit: Carri Lohse-Hanson, Minnesota Pollution Control Agency.

#### 7.3.3 TRACKing of Community Sustainability Plus

In collaboration with the Forum, the Sustainability Committee will continue adding community-based sustainability initiatives throughout the basin to the TRACS database. The TRACKing of Community Sustainability Plus (TRACS+) inventory will be an ongoing initiative to assist the LSBP in determining the extent to which LaMP goals and objectives are met and, ultimately, whether Lake Superior residents are moving towards, or away from, sustainability. Potential use of the WiserEarth community directory and networking forum ([www.wiserearth.org](http://www.wiserearth.org)) to map and network non-governmental organizations (NGOs) and individuals addressing sustainability issues should be investigated.

### 7.3.4 Keepers of Sustainability Map Series

Using the TRACS database as a starting point, a “Keepers of Sustainability Map Series” for the Lake Superior basin could be created. It would include, for example, sectoral maps (institutional, educational, business/commercial, etc.) which depict the location and contact information of basin organizations working on sustainability initiatives. Another option would be to create one map only, with different icons representing different sectors. The main purpose of the Map Series would be to inform citizens of the positive events occurring in the basin, as well as to facilitate networking and information exchange. The creation of an online version should be explored as well. Lastly, this project should be coordinated with another idea discussed by the Superior Work Group—watershed fact sheets that provide basin residents with basic information about the place they live.

### 7.3.5 Landowner and Realtor Outreach Project

In collaboration with the Superior Work Group, Well Aware, EcoSuperior, Green Communities Canada, and the Lake Superior Partnership, the Sustainability Committee is contributing to the development of education and outreach materials for realtors and homeowners. The materials are aimed at improving realtors’ and homeowners’ understanding of environmental concerns related to rural, residential properties. It is hoped that, through the project deliverables—which include a Lake Superior Best Management Practices (BMP) manual, professional and community outreach sessions, and home visits—the target audience will begin to change its attitudes and approaches to activities, as well as the use of these types of properties.



Figure 7-7. Outreach and education materials are being developed to help improve realtors’ and homeowners’ understanding of environmental concerns related to rural, residential properties. Photo credit: Frank Koshere, Wisconsin Department of Natural Resources.

Due to property ownership and real estate regulation that usually falls within the jurisdiction of provincial, state, or local governments; uncoordinated funding opportunities at all levels of governments; and varying local and regional organizational capacities and programs, this unique project is being implemented differently across the basin’s various jurisdictions. However, cross-jurisdictional knowledge transfer and collaboration occur when appropriate.



To date, the binational project team has prepared the common elements of the BMP manual. In the spring of 2008, all jurisdictions will be researching, reviewing, and developing content and artwork for their portion of the BMP manual. Completion of the manual is targeted for the summer of 2008. In Ontario, EcoSuperior conducted 54 Well Aware visits in the Thunder Bay area in the summer of 2007. EcoSuperior is also planning a Community Forum in Kakabeka Falls to promote proper management of rural properties. In all jurisdictions, further work on the development, printing, and distribution of the BMP manual, as well as promotional events such as community fora, will depend on the availability of funds.

The design of this project was influenced by the CARD Project that the Sustainability Committee conducted in 2005. The LaMP Chemical Committee has also contributed to the landowner and realtor outreach project (see Chapter 2, section 2.2.4 and Chapter 4).

### 7.3.6 Aboriginal/Tribal Cooperation

Grand Portage Reservation, Fond Du Lac Reservation, Fort William First Nation, and the Anishinabek of the Gichi Gami, a citizen-based environmental organization based on Fort William First Nation, hope to build on their growing relationship and will seek to pursue collaborative activities.

### 7.3.7 Climate Change Action at Fond du Lac Reservation

The Fond du Lac Reservation has recently convened a climate change work group comprised of Resource Management Division staff. This group is gathering information about reservation-wide and building-specific energy efficiency, fleet fuel efficiency, and other opportunities to reduce carbon emissions.

Fond du Lac has also invested in research on renewable energy, primarily wind and biofuels, and plans to install a biomass generator in 2009.

The tribal council passed a resolution in 2007 signing on to the Kyoto protocols and will seek to reduce GHG emissions 25 percent by 2020. The climate change work group will bring recommendations to the tribal council on purchasing policies, energy efficiency improvements, and other tools for reaching the reduction goals. The work group will continue to reach out to the tribal community to solicit residents' concerns and ideas for mitigating the effects of climate change on tribal resources.



Figure 7-8. Fond du Lac Reservation is considering ways to reduce carbon emissions and mitigate the effects of climate change on tribal resources. Photo credit: Frank Koshere, Wisconsin Department of Natural Resources.

### 7.3.8 Sustainability Resource Mobilization

The Sustainability Committee will endeavor to stabilize and expand its membership, and will be looking for additional partners both within and outside the LSBP. This should make it easier to leverage a variety of resources, thus helping develop and implement sustainability initiatives. Particular focus will include recruiting university expertise as well as economic development councils/corporations to demonstrate sustainable economies.

### 7.3.9 Baseline Sustainability Indicators – Phase 2

The Sustainability Committee will analyze previously conducted CARD projects to look for common themes to be pursued. Using the resources mobilized in the above action, the committee will build a work plan and project sets to address what we have learned.

#### Lifelong Ecological Consciousness Community Learning Program

As ecological systems are continually being degraded, humanity is facing very serious challenges. Solutions exist, but they are complex and often muddled by a great deal of misinformation, myth, and ignorance about ecological systems. The Lifelong Ecological Consciousness Community Learning Program (LECCLP), a program of the Forum for Ecological Education and Action ([www.feea.ca](http://www.feea.ca)) based at Thunder Bay's Lakehead University, assists citizens in becoming ecologically literate and ecologically conscious. By building the knowledge and skills they need to make ecological changes in their own behaviors and those of their family, and by empowering them to influence broader community systems through action and leadership committed to sustainable policies and practices, LECCLP protects and preserves life for future generations.

LECCLP consists of a four-part course in which citizens develop the skills of anticipatory learning, self-directed learning, co-learning, and life-cycle systems-based thinking. The inaugural *Part 1: Introduction to Ecological Literacy* was successfully completed from May to June 2007 and in November 2007. The next course is scheduled to begin May 1, 2008. *Part 2: Extending Our Ecological Literacy* is scheduled to begin April 16, 2008. *Part 3: Ecological Location-based Systems Learning* was completed in November 2007. *Part 4: Ecological Leadership* is slated for either September 2008 or the spring of 2009.