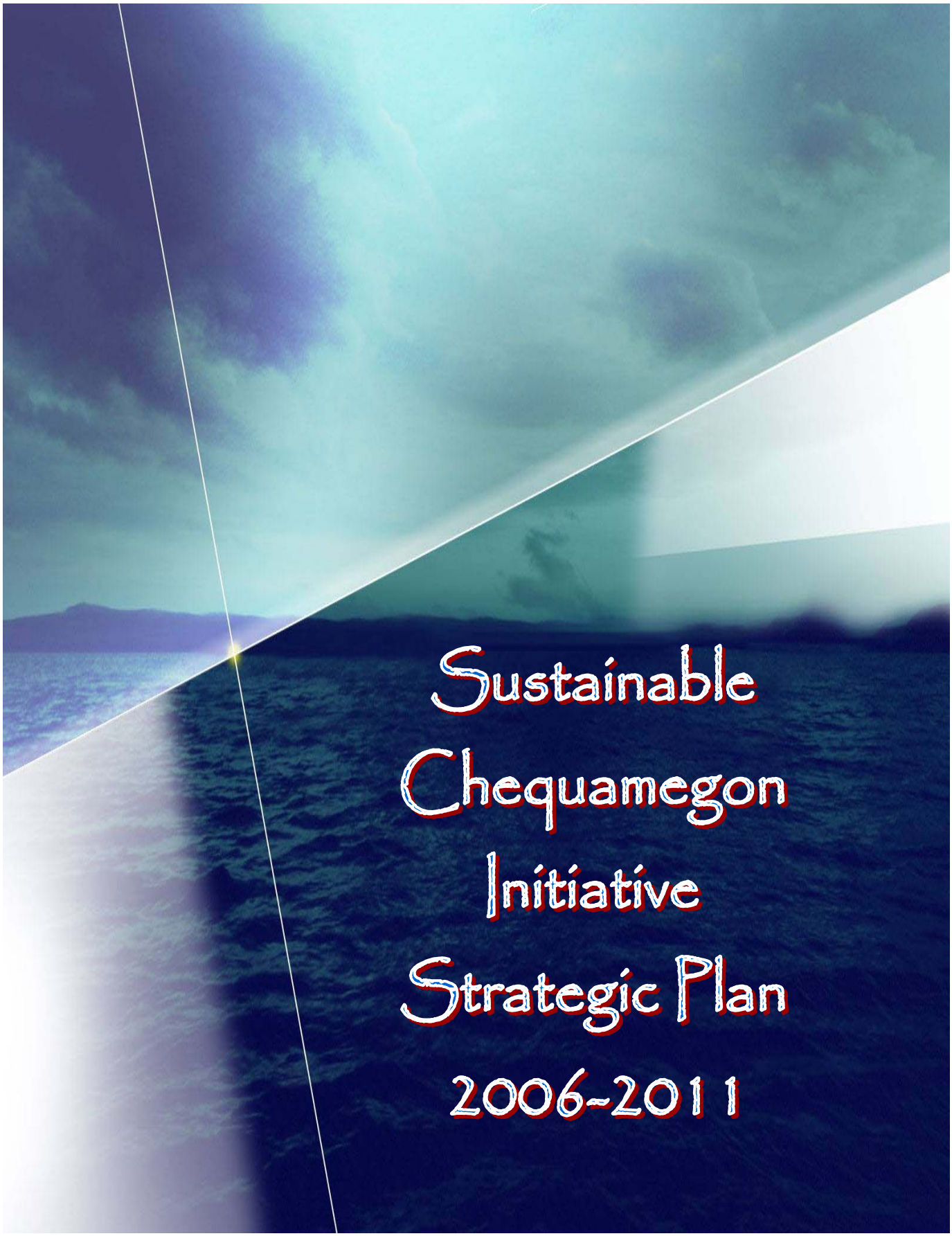


Sustainable Chequamegon Initiative Strategic Plan 2006-2011

Sustainable Chequamegon Initiative Strategic Plan 2006-2011

The Sustainable Chequamegon Initiative: A Project of the Alliance for Sustainability.

Acknowledgements:

Alliance for Sustainability Steering Committee

Jack Beagan
Bill Bussey
Savita Jones
Tim Kane
Bob Krumenaker
Bruce Lindgren
Pete Mann
David Thomas
Mary Rehwald
Nancy Sandstrom
Steve Sandstrom
Roy Settgas
Jane Silberstein
Amy Syverson
Linda Webster
Chris Worth
Mayor of Ashland
Mayor of Bayfield
Mayor of Washburn
Tribal Representative, Bad River
County Representative

Sustainable Chequamegon Initiative Planning Committee*

Beth Armstrong
Jo Bailey
Terry Beirl
Nan Fey
Grant Herman
Lauren Hildebrandt
Matt Hudson
Ted May
Mary Rehwald
Steve Sandstrom
Fred Schnook
Jane Silberstein
David Thomas
Linda Webster
Tom Wojciechowski

*For more information, contact:
Jane Silberstein, 715-682-7017
jane.silberstein@ces.uwex.edu

August 2006

Forward

A group of individuals in the Chequamegon Bay Area of Northwest Wisconsin, eager to advance the principles and concepts of sustainability, established The Alliance for Sustainability (AFS) in 1992. AFS is a 501 c-3 nonprofit organization. In 2005, AFS launched a new project: The Sustainable Chequamegon Initiative. This initiative has engaged hundreds of area residents during the last year who are now ready to further the vision of AFS and establish a Sustainable Chequamegon Center for the region.

This strategic plan is intended to be a working document that should be updated as the need arises.

Vision of the Alliance for Sustainability:

"The Alliance for Sustainability acknowledges its responsibility for leadership in creating a sustainable community. A sustainable community respects its own diversity and accepts responsibility for social, economic and ecological well being of the present and future generations through individual and collective actions."

What do we mean by "sustainable development?"

"Sustainable development… meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development. Our Common Future. The Brundtland Report. Oxford University Press, 1987, p. 43).

It is the understanding of all who authored this document that sustainable development is grounded in the belief that to sustain life on this planet, current generations must retain as many options and resources as now exist for future generations. Sustainability efforts are intended to maintain these options while providing for healthy people, a healthy environment and a prosperous economy.

Sustainability is grounded in three interdependent forms of capital - social, natural and financial. The economy (built environment) and society (human culture) are limited by the carrying capacity of the natural environment (the earth's natural resources) – see illustration below. "Development" in this context suggests improvements in human technology and advances in the human condition, including health, education, economic well-being, wisdom, freedom and overall quality of life.

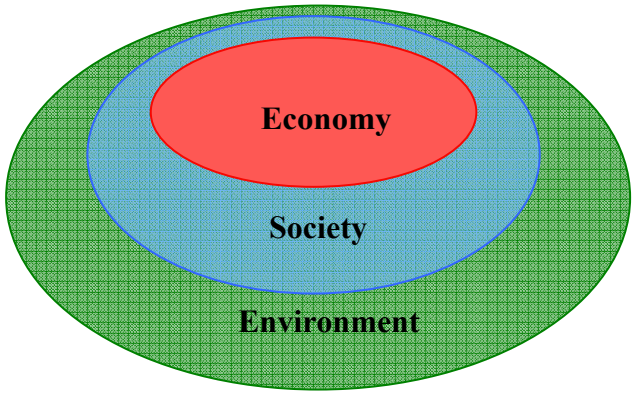
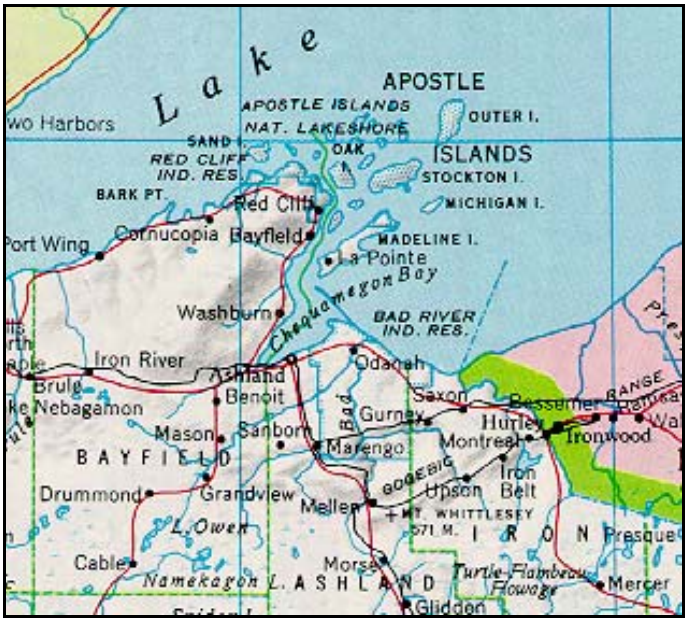


Table of Contents

Sustainable Chequamegon Initiative



History and Project Design

Alliance for Sustainability
SUPPORTING DIALOGUE

The Setting

The Chequamegon Bay region encompasses a unique population of some 20,000 people around the south shore of Lake Superior. Six communities – the cities of Ashland, Washburn and Bayfield, the Town La Pointe, and two bands of Lake Superior Chippewa (Ojibwe), Red Cliff and Bad River – are situated around the bay. The area abounds with year-round recreational opportunities, and serves as a gateway to the Apostle Islands National Lakeshore, a beautiful 21-island archipelago that attracts boaters, kayakers, sailors, and campers eager to explore its natural wonders.

The natural beauty of the Chequamegon Bay region is perhaps its strongest asset. The local economy has experienced significant changes over the past century. Until the 1960s, much of the region relied on resource extraction, shipping, and manufacturing. After the logging, large sawmills and shipping industries were depleted, the region suffered a severe economic downturn whose effects linger to this day. The two county jurisdictions encompassing the Chequamegon Bay region (Ashland and Bayfield Counties) rank significantly higher in unemployment, and incomes are significantly lower than the statewide average.

Table 1: Economic Data for Selected Areas in Chequamegon Bay Region

Municipality	Poverty Rate	Unemployment	Median Household Income
Wisconsin	8.7 %	5.0 %	$ 43,791
Ashland County	11.9 %	8.1 %	$ 31,628
Bayfield County	12.5 %	8.5 %	$ 33,390
City of Ashland	12.7 %	8.7 %	$ 30,853
City of Bayfield	11.8 %	7.2 %	$ 32,266
City of Washburn	10.3 %	6.7 %	$ 33,257
Bad River Reservation	11.9 %	9.6 %	$ 27,303
Red Cliff Reservation	12.9 %	18.3 %	$ 24,412

Source for Unemployment and Household Income and poverty rate for cities:
2000 Census of Population and Housing, SF3
Source for the Poverty Rate for other entities: www.uwex.edu/ces/flp/cts/index.cfm

With these existing economic challenges in the region, there is a growing diversity of niche-based businesses ranging from small manufacturing, tourism, healthcare, and higher education to sustainable timber harvesting and organic farming. Although many people struggle to make ends meet economically, there remains a strong sense of place and a creative community synergy in the Chequamegon Bay region. People share common values - clean air to breathe, safe water to drink, and healthy food to eat. One thing that draws common ground with area residents, regardless of background or political beliefs, is that Lake Superior and other natural treasures in the area must be protected. These resources are not only vital to the region, they are also extremely vulnerable.

The People

The Chequamegon Bay region is both a destination point for tourists and a home for people who love the natural beauty of the area. Ashland is the largest community in the region (8,000),

and functions as a regional center for a 50-mile radius. Over a thousand people drive to Ashland to work from the surrounding area every day. Ashland is home to two colleges - Northland College and Wisconsin Indianhead Technical College - and a major medical center.

The Red Cliff and Bad River Chippewa reservations lie on the northern and eastern points of the arc that makes up Chequamegon Bay. They each provide leadership in natural resource preservation and treasure their connection to *Aki* (Earth) and their cultural heritage developed in connection with Lake Superior. The Chippewa (Ojibwe) believe that their decisions must consider their impact seven generations into the future.

Bayfield is known for its hillside charm, apple and fruit farms, active marinas, and the Big Top Chautauqua tent that draws crowds from 300 to 900 a night for sixty to seventy live cultural performances every summer. Bayfield, Washburn and La Pointe are small but popular tourist destinations, and are proud of their family-oriented schools, businesses, libraries, and amenities. The Chequamegon Bay region is well served by a daily newspaper that is widely read, a locally-owned television station, and four additional weekly news publications.

As one could predict from the above economic data, "jobs" is a top issue on surveys of the communities. Many people work more than one part-time or seasonal jobs, but permanent, full-time employment is often difficult to find. Many worry about the drain of young people with skills moving away to urban areas that offer higher paying jobs.

The people of the Chequamegon Bay region have a strong sense of community. There is growing conviction among residents that the time has come to develop a new economic paradigm, built around a sustainable model for the Chequamegon Bay that will create more jobs. There is a realization that current systems used to produce energy, get rid of waste, grow food, and transport ourselves from one place to another are not sustainable. Many residents have a vision of this region as a **national rural model** for sustainable development. Future generations can enjoy a life that is equal to or better than what we have today. The enthusiasm of many Chequamegon Bay residents for this **eco-municipality vision** provides a unique opportunity for the region to develop a sustainable economy and lifestyle.

The Sustainable Chequamegon Initiative – A Grass Roots Movement

A new spirit took root among hundreds of Chequamegon area residents in the spring of 2005 following an international conference in Ashland sponsored by the Alliance for Sustainability, entitled; "Sustainable Sweden: the Eco-municipality Movement." The conference was the outcome of many slideshow presentations to local governments and other organizations by an Ashland city councilor who had visited Sweden the preceding summer. She visited several of Sweden's seventy "eco-municipalities" that are known throughout the world for having moved toward a sustainable society over the past twenty years. These municipalities all have adopted *The Natural Step (TNS)* (see Appendix A), a scientific framework based on sustainable principles to bring about systematic changes in business, government, education, energy production, waste disposal, transportation, and agriculture. After hearing these presentations, thirteen local entities, including three city councils, two tribal councils, and four educational institutions, donated at least $1,000 each to co-sponsor the "Sustainable Sweden" conference that was held in February 2005 at the AmericInn in Ashland.

This conference was a **turning point** for the Chequamegon Bay region. Over 200 participants listened to Torbjorn Lahti, father of the eco-municipality movement in Sweden, and Sarah James, co-author of *The Natural Step for Communities*, present their experiences and stories of many communities in Sweden that have embraced and moved toward sustainability. Attendance included elected officials, mayors, city and tribal employees, educators, business owners, builders, planners, and interested citizens. One feature of the conference was to have participants brain-storm, discuss, and prioritize potential local community action projects that would be based on sustainable development principles. In the end, over four dozen projects were identified. Several organizational meetings following the conference moved many of these initiatives forward.

In June 2005, a delegation of Swedish municipality leaders came to present their success stories to 450 area residents in the Big Top Chautauqua tent. They received a standing ovation for their ideas and for the work local citizens had begun. In July 2005, the Washburn City Council received national recognition for passing an eco-municipality resolution. In early fall, the City Council of Ashland followed suit. **Together, Washburn and Ashland became the first two communities in the United States to pass eco-municipality resolutions** (Appendix B).

Washburn City Council and staff with Torbjorn Lahti, summer 2005.

In October 2005, ninety people joined **a first round of Study Circles**. These nine discussion groups, of eight to twelve citizens each, met one night a week for two months in homes, businesses, and libraries throughout the Chequamegon Bay region to discuss the book *The Natural Step for Communities* by Torbjorn Lahti and Sarah James and how the sustainable development ideas described in the book might be incorporated in these communities.

In January 2006, a public celebration of outcomes from these Study Circles led to **a second round of Study Circles** and the formation of three organizational committees, including the **Planning and Organization Committee** which spent two months developing this strategic plan for 2011.

Other significant events that took place during the past year included:

1. Ashland Mayor Fred Schnook and Washburn Mayor Irene Blakely signed the U.S. Mayors' Climate Change proposal along with 218 other mayors in the U.S. who want to reduce their contributions to global warming.
2. Bayfield became one of four communities in Wisconsin to pilot a "Travel Green" certification program. Twenty-four businesses volunteered to participate. Sustainable Bayfield, one of several groups created through the Sustainable Chequamegon Initiative, surveyed Apple Fest booth vendors in 2005 to assess the quantity of waste generated at this annual October event that draws thousands of people to Bayfield. With the assistance of Sustainable Bayfield, vendors will reduce the waste stream at the 2006 Apple Fest. The Bayfield group also sponsored a sustainable business seminar and is developing bio-diesel guidelines for city and Apostle Islands National Lakeshore use.
3. In Ashland, one study circle lobbied successfully to increase the Bay Area Rural Transit (BART) bus funding that will improve the frequency and availability of stops in the region.
4. In Washburn, the Public Works Director replaced inefficient showers in the city's parks with a more sustainable, on-demand shower heating systems.

5. *The Daily Press*, the daily newspaper for the region, published a 30-page special section - "Northland Innovations," which told twenty success stories of sustainable enterprises in the Chequamegon Bay region.
6. The Alliance for Sustainability (AFS), a local, non-profit group that has sponsored educational programs for the past fourteen years, created the Sustainable Chequamegon Initiative (SCI) which is seeking to establish a Sustainable Chequamegon Center to be staffed in 2006 (the establishment of a Center/office is part of this Strategic Plan). The AFS board will have oversight of this Center.
7. Washburn Elementary School has developed a school-wide plan to become a Green & Healthy School.
8. The Town of La Pointe organized a study circle that has formed a *Sustainable Madeline* group, is planning a sustainability education series, and is using biodiesel in its dump trucks (summer 2006). The LaPointe School students planted and shared a Three Sister's Garden with the community and are involved in composting school waste. They also planted a small orchard and garden that will be the basis for food preservation activities.

The Vision

The "Sustainable Chequamegon Initiative" (SCI) refers to the sustainable development movement in the Chequamegon Bay region initiated in 2005 by the Alliance for Sustainability. It is a name adopted by a group of "on fire" people who are working together to make significant and positive change. It also is a name to lend a "sense of place" for these regional, collaborative efforts. People on the shoreline view the same night sky and see each other's twinkling lights from around the bay, and an environmental challenge to one community is a challenge to the others. The strong collaborative spirit, rare between small towns, is the core of this growing movement. This is a collaborative, regional initiative.

We see a tremendous opportunity to harness the passion and energy people have for developing a more sustainable way of life. The need for a sustainable economy and a new way of life is becoming apparent in our modern wasteful society. People in this region recognize that we cannot rely solely on outside sources to provide food and energy. We believe that the word "waste" in this region will become known as a "re-useable resource." We no longer want to rely on energy production from fossil fuels that are causing unprecedented changes to our environment. We can move toward a region where people take pride in meeting many of our needs locally, thus creating a feeling of collaboration among its residents – and a strong sense of place. We believe we can meet our regional needs while also protecting the natural resources that provide the base for our quality of life and economy.

We believe the Chequamegon Bay region, with its energetic people, provides a unique setting where we can develop a sustainable community in North America. A significant foundation for sustainable development is already here. We now need the financial resources to move this work forward. Our over-arching vision is to use the emerging techniques and experiences in the Chequamegon Bay region as a strong rural model for sustainable community development in North America.

We want to move the communities in the Chequamegon Bay region to above the statewide poverty and unemployment averages. We see these efforts as an investment in the future economic, social, and environmental sustainability of our region. This investment includes significant opportunities for entrepreneurs to develop innovative service and manufacturing businesses that are based upon the ideas of maximizing energy efficiency, re-using "waste,"

meeting business needs locally, and minimizing environmental impacts. We feel this investment has the potential to create regionally-specific job niches that will add to the current job base in the communities, and move the region from being "economically deprived" to becoming "economically vibrant." The Sustainable Chequamegon Center will help to facilitate this investment.

The Sustainable Chequamegon Center

An interim Sustainable Chequamegon Office opened July 17, 2006, in Ashland. The initial work of paid staff is to secure funding for a Sustainable Chequamegon Center. The purpose of the Center will be to support the regional sustainability initiative and lead collective efforts to create a model for rural sustainable development. We envision a Center that will:

* encourage and support local governments in their local sustainability initiatives;
* serve as a collaborative communications center for community-based sustainability efforts;
* lead regional sustainability initiatives, supporting grant-writing efforts to support broadly-applied sustainability programs and initiatives;
* serve as a center for educational outreach to broaden support for sustainability across all regional population sectors;
* foster and support the establishment and operation of business, residential and other models for sustainability to facilitate educational program expansion for regional and broader application; and
* provide inspiration, vision, direction and continuing support to regional sustainability efforts, and share successes with other communities and regions throughout the state, nation and world.

Operating Guidelines

1. **Adhere to the core Vision for the *Alliance for Sustainability***. We will encourage and facilitate efforts that use the four system conditions within the *Natural Step* framework (see box inset and Appendix A). We will welcome all businesses and organizations interested in seeking funding and finding networking support for innovative sustainable design projects. Adopters of sustainable practices will use the Center to share skills, and find suppliers, markets, and many other connections to improve their operations through publicity and networking formats (*Green Pages*, newsletters, email lists of suppliers and buyers, etc).

Sustainability based upon *The Natural Step* suggests that we develop policies and practices that ultimately:

1. Eliminate our community's contribution to fossil fuel dependence and to wasteful use of scarce metals and minerals.

2. Eliminate our community's contribution to dependence upon persistent chemicals and wasteful use of synthetic substances.

3. Eliminate our community's contribution to encroachment upon nature (e.g., land, water, wildlife, forests, soil, ecosystems).

4. Meet human needs fairly and efficiently.

Source: Planning for Sustainability Policy Guide, American Planning Association

2. **Use a community-based approach to planning.** We will: (a) raise awareness of sustainability needs and interests; (b) build a community-defined vision of a desired future; (c) build connections across all communities by including the full range of community interests, values and perspectives; (d) take baseline assessments of current practices; (e) plan in cycles, while focusing upon the vision and finding agreement upon plans and actions carried out; (f) operate by a process that facilitates citizen actions and allows planning and to evolve over time toward the shared vision.
3. **Use sustainability indicators in the Chequamegon Bay Region.** We will advance the

use of sustainability indicators in the social, economic and natural resource arenas. Building upon the existing efforts of the many regional natural resource agencies, we will use these data and those collected by volunteers and others to create an evolving picture of our progress toward sustainability -- and guide continued efforts.

4. **Emphasize local financial contributions and investments for our efforts.** We strongly believe that a truly sustainable initiative must minimize dependence upon external resources – including financial ones. However, to accelerate progress with major sustainability program efforts we will seek external funding to spearhead such efforts, and expand opportunities to spread our mission beyond regional borders.

5. **Promote economic development**. We will work toward economic development in the Chequamegon Bay region that integrates business practices, environmental quality and community connections and, by so doing, create a prosperous economy while protecting ecosystem health.

6. **Specialize in communicating sustainable development ideas.** We will publish printed and web-based newsletters to outline on-going developments and opportunities. The Center will find inspirational models for local initiatives and help publicize local successes nationally and internationally. We will provide opportunity for expanded "ownership" of the Center, encourage new membership, and welcome loyal supporters to remain with us. We will sponsor conferences, round-table discussions, and meetings with a variety of stakeholders.

7. **Promote healthy working conditions for our staff**. We will offer staff pay that is competitive with other respected nonprofit groups, and support our staff in avoiding burn-out. We will also hire and train interns from colleges and universities to implement baseline research of communities and businesses. We will provide educational workshops and support for our volunteers, professional development for our paid staff, and celebrate contributions of all.

8. **Follow a systems approach.** We will not only support sustainable projects in multiple sectors (business, agriculture, education, government, healthcare, waste management, housing, natural resources management, energy, and mass transit), we also will help foster links between people working in these different sectors, and help others recognize the necessity of working across these sectors to achieve solutions that may not be addressed independently.

Sustainable Chequamegon Initiative

Strategic Plan
Goals & Objectives

Alliance for Sustainability
SUPPORTING DIALOGUE

Introduction

The amount of resources, regionally and globally, that we consume in our communities is a significant determining factor in our impact on the environment. The other determining factor is the number of individuals who are doing the consuming. Therefore, the size of the population in our community and the amount of resources we consume to maintain a given lifestyle will determine our ecological footprint. Addressing population and consumption issues is fundamental in attaining sustainability. "Upstream thinking" directs us to work more effectively on the causes of problems (population and consumption) instead of reacting to symptoms (more housing, more roads, more resource use, more energy requirements). If indicators begin to show negative trends in our region, then action should be taken to encourage population and consumption levels that are more consistent with environmental protection, more appropriate for a locally based economy, and more conducive to the long-term health of our communities.

We should "be the change we wish to see in the world". With a global population that far exceeds global carrying capacity, our communities should begin to plan sustainably with this in mind and reflect this awareness in our public policy. Just as communities that produce minimal amounts of greenhouse gas should still move towards a renewable energy source, regions that have low population density should still move towards population and consumption levels based on local carrying capacity. This requires community awareness. Understanding these issues is essential for planning a sustainable future. Implementation should be based on effective community education, and be supported by science-based research.

Part of achieving a sustainable community is to be able to measure progress towards achieving sustainability from baseline conditions. This requires the development of appropriate indicators to measure changes in the social, economic, and environmental conditions as sustainability initiatives move forward. Indicators not only provide a foundation for reporting progress towards sustainability, they are also a means to measure whether community social, economic, and environmental goals are being met.

Because the Chequamegon Bay region lies within the Lake Superior basin, it is appropriate that the SCI use sustainability indicators published in the Lake Superior Lakewide Management Plan (LaMP) as the basis for developing its own sustainability indicators. The LaMP is a binational working document published by the federal governments of the United States and Canada in response to Annex 2 of the 1987 Canada-U.S. Great Lakes Water Quality Agreement (GLWQA). The goal of the LaMPs is to provide a framework to restore beneficial uses and reduce the loadings of critical pollutants to the Great Lakes. The Lake Superior LaMP identifies sustainability as a critical component to achieving its "Vision for Lake Superior". Chapter 7 of the LaMP document describes sustainability within the context of the Lake Superior basin, including current status and trends, strategies towards achieving sustainability, and a set of "best bet" indicators that can measure progress towards achieving sustainability.

Therefore, the Sustainable Chequamegon Initiative will adopt the sustainability indicators described in the Lake Superior LaMP to form the framework for developing indicators specific to the Chequamegon Bay region. The SCI will also consult other sustainability indicators that have been published (i.e.) in order to develop the most robust set of indicators for this region. The LaMP "best bet" sustainability indicator framework is developed from the *Ecosystem Principles and Objectives for Lake Superior* document published by the Lake Superior Binational Program in 1995. The framework is as follows:

Sustainability Indicator Framework from the Lake Superior LaMP (Lakewide Management Plan)

1. **Reinvestment in the Natural Capital of the Basin** – Monitor the balance between what is extracted from the natural basis for life in the basin with what is returned to the land, and to promote projects that facilitate an equitable balance in the future. Thus, this suite of indicators includes: the amount of sustainable forestry occurring on the land; the extent of watershed management or restoration programs; native fisheries and wildlife stocking; exotic species control and native plant repatriation; reclamation of mining operations and industrial sites; and replacement of wetlands and biotic diversity.
2. **"Quality of Human Life" Indexes** – The extent to which natural and social forces in the watershed impact upon citizens' lifestyles (e.g., migration patterns, social service demands). This suite of indicators includes: incidence of crime; demographics of migration (especially the loss of extended families in the basin); demands for social services; transportation infrastructure status; extent of recreational and cultural opportunities; citizen involvement in decision making; public access to lakeshores; and population density.
3. **Resource Consumption Patterns** – This suite of indicators includes: availability of recycling programs; amount of forest and mining resources that remain in the basin; types and quantities of electric power generation; quality and volume of aquifers; amount of and stressors related to tourism; depletion of wildlife and fisheries; landfill capacity and incineration volume; degree of urban sprawl; and loss of native flora.
4. **Awareness of Capacity for Sustainability** – Education in formal and informal settings is a necessary component in any drive toward regional and global sustainability. The indicators needed include: depth of environmental and sustainability education curricula in schools; promotion of resource conservation programs; incorporation of ecological design into building codes; extent of zoning regimes; popular support for environmental regulations; community outreach programs by natural resource agencies; and media coverage of sustainability-related
   issues. It should be noted, however, that monitoring trends in this suite of indicators will be difficult given the inherent subjectivity of what actually constitutes "awareness."
5. **Economic Vitality Measures** – Without a healthy economy, social and environmental policies in a democratic system are not in themselves sustainable. This suite of indicators includes: per capita income; cost of living; extent of poverty; local employment trends; regional trade balance; diversity of community economies; facilitation of transitional economics; value-added industry; and regional or local tax bases.

Business

Goal 1:
A majority of businesses in the Chequamegon Bay region will have an understanding of the definition of sustainable development and an awareness of the principles of The Natural Step (TNS).

Objective A:
Develop a **business mentoring program** to assist area businesses in the development of sustainable business practices in their existing businesses or new business ventures.

Actions:
1. Develop a list of business owners and employees who have already incorporated sustainable practices into their business and are willing to act as mentors to other business owners who are interested in doing likewise.
2. Develop and distribute a directory of sustainable business mentors that is readily available to area businesses. (i.e., AFS and Chamber of Commerce websites and other business related websites, as well as a printed version.)
3. Provide training to those interested in being mentors.

Objective B:
Ensure that area businesses and employees will have the skills and knowledge necessary to effectively follow the core principles of TNS and sustainable business practices.

Actions:
1. Acquire and/or develop and distribute informational materials that support the premise that environmentally sound business practices are also economically sound. (For example, renewable energy alternatives and energy conservation decrease expenses for businesses.)
2. Develop a TNS Tool Kit for Business and make it available to area businesses.
3. Acquire and/or develop and distribute informational materials that provide regional, national and global examples of sustainable business practices that local businesses can incorporate locally.
4. Collaborate with Chambers of Commerce and Bayfield and Ashland County Economic Development Corporations to develop an annual Sustainable Business Conference.
5. Insure that one-day workshops on sustainable business practices are offered on a regular basis.
6. Collaborate with Northland College, WITC, UW-Extension and LCO Community College to develop and implement a "Natural Step for Business" course, seminars and other programs.
7. Insure that a TNS course and course fee structure is developed by winter 2007 and offered on an ongoing basis.

Objective C:
Design a program whereby Study Circles are taking place within and for businesses in the Chequamegon area.

Actions:
1. Provide training, and consultation on how to create study circles to area businesses that are interested in offering study circles.

2. Create and schedule "Train the trainers" workshops to train additional study circle facilitators.
3. Annually publish a schedule of Study Circles available to area businesses.

Goal 2:
Economic development in the Chequamegon Bay region will integrate business practice, environmental quality, and community connections to create a prosperous economy and healthy ecosystems.

Objective A:
Promote the adoption of sustainable business practices by assisting area businesses in developing marketing strategies that highlight their sustainable practices.

Actions:
1. Research and establish criteria and annually publish Chequamegon Green Pages (Green Business Directory).
2. Encourage participation in the Wisconsin Travel Green program.
3. Publish and reward "Best Practices" to highlight area businesses that are taking the lead in adopting new sustainable practices.
4. See Goal 2, Objective E, Action d.

Objective B:
Provide businesses with the opportunity to collaborate and develop innovative solutions for business development by coordinating the development of Business Innovation study groups.

Actions:
1. Survey local businesses and research area economic data to identify businesses and business owners that are interested in participating in the groups.
2. Develop a clear and concise communication plan to effectively inform area businesses on the purpose of the groups and meeting schedules.
3. Develop business innovation groups to specifically address the needs of individual business sectors such as; agriculture, forestry, tourism, downtown retail, manufacturing, and business services (accounting, legal, finance, etc.).

Objective C:
Businesses in the region will use the Eco-industrial development model -- an approach to economic development that promotes connections within and across industries, as well as interaction and cooperation with the communities where businesses are located. This is an approach that encourages businesses to change inefficient practices and processes that cause wasted energy and resources and fosters an understanding of waste as a useable resource.

Actions:
1. Collaborate with existing economic development organizations to promote the eco-industrial development model and the development of innovative solutions.
2. Develop informational materials to support the eco-industrial development philosophy.
3. Educate financial institutions for business development and business expansions (commercial and investment banks, revolving loan fund administrators, angel investors and venture capitalists) to understand the principles of TNS and other sustainability initiatives so they may be more supportive of business ventures incorporating the eco-industrial development model.

Objective D: Determine a baseline status for community change by surveying current business practices and attitudes regarding energy use, green products, recycling, etc.

Actions:

1. Develop and conduct surveys of business practices and attitudes regarding resource use and other sustainable practices.
2. Utilize data to propose and implement strategies for community change.
3. Establish benchmarks to measure progress.
4. Develop focus groups with area businesses on topics such as Fair Trade practices, green purchasing, energy conservation techniques, and other topics.

Government

Goal 1:
The municipal governments of Ashland and Bayfield County and tribal governments of the Red Cliff and Bad River Tribes operate according to the guiding principles of *The Natural Step (TNS)* and the region is an eco-municipality model for other areas of the state, the country, and the world.

Objective A:
Provide the necessary support/services to ensure that government entities adopting *TNS* incorporate this framework in all phases of governance.

Actions:

1. Develop a toolkit for governments that wish to become "green" or sustainable or follow the principles of *TNS* and introduced to all local governments in the Chequamegon Bay area. This should serve as an invitation to those governments that have not yet adopted resolutions and a practical guide for those which have.
2. A Sustainable Chequamegon Initiative committee will work with the League of Women Voters and other organizations to promote citizen participation in government. Participation in government is key to "sustaining sustainability".
3. Provide or ensure training in *TNS* for local governments – elected, appointed officials and all employees.

Education

Goal 1:
All Chequamegon Bay educational institutions have adopted *The Natural Step (TNS) s*ystem conditions as operational guidelines and infuse sustainability principles into and throughout their curricula.

Objective A:
Collaborate with regional schools and the CESA #12 office so that 75% of CESA#12 schools are recognized as Green & Healthy Schools.

> Note: The Green & Healthy Schools program utilizes guidelines designed through a DNR/DPI collaboration which outlines operations and goals for ten different sections: Chemical Management, Community Involvement, Energy, Facilities & Grounds, Indoor Air Quality, Integrated Pest Management (IPM), Mercury, Transportation, Waste & Recycling, and Water. We would add Wellness to this list, which would include encouraging school districts to utilize more regionally-produced food for their school meals and adding more physical activity and time outside as part of their daily curriculum. In addition to operations, sustainability principles can be infused into the curriculum at each grade level for all eleven of these topical areas.

Actions:
1. Continue support for the Washburn Elementary School to become the region's first Green and Healthy School.
2. Support (letter of support, part of a grant or other) regional/state efforts to establish a Regional Place-based Curriculum Specialist who works out of the CESA #12 office to help area schools incorporate health and sustainability practices into district operations and infuse wellness and sustainability into a comprehensive spiral place-based K-12 curricula.
3. Assist with publicity to illustrate the benefits of becoming a Green & Healthy School and to help the larger region understand how intimately connected Green & Healthy Schools are with overall regional sustainability efforts.
4. Facilitate networking among the school personnel and regional Green Businesses and resource agencies so there is more community collaboration for place-based education in the schools.
5. Develop an expanded pool of speakers and educational program volunteers who would be available for school district in-services to support sustainability operations and curricula.

Objective B:
Extend the cross-societal benefits of K-12 sustainability efforts by enabling schools to serve as sustainability centers for people of all ages throughout the region.

Actions:
1. Encourage regional businesses and entrepreneurs to provide programs for students on sustainable agriculture, green building, alternative energy, etc.
2. Evaluate societal benefits of the eleven sections of Green & Healthy Schools as a framework for sustainable operations for businesses – to broaden the benefits of Green

& Healthy Schools across society and work to further enhance student engagement within the community.

3. Convene school representatives to discuss the potential for a Tour of Sustainable Schools to be opened to the public for idea-exchanges. Develop an annual Tour of Sustainable Schools that highlights sustainable practices within the schools. The tour may include:
    - Washburn Elementary School with its new rooftop array of solar panels – some for solar electricity generation, and others for solar hot water.
    - Ashland, Bayfield and Washburn School Districts with their locally adapted schoolyard restoration efforts composed of a variety of northern native plants. These are complemented and/or patterned after display gardens in Bad River and Red Cliff - where there is additional emphasis upon Native uses of these plants.
    - Washburn Elementary School with its school garden where they are growing vegetables used in the school lunch program.
    - Ashland Elementary and High Schools "community gardens", which use their expansive open space to provide families the opportunity to grow their own vegetables at the school site. The expansion is paid for by contributions from those using the garden sites.

Objective C:
Collaborate among all educational institutions (K-12 schools, (public and private), Wisconsin Indianhead Technical College (WITC), Northland College, Ashwabay Outdoor Education Foundation (AOEF), Lac Courte Oreilles Community College (LCOCC) and Clearwater Folk School) to work toward enhanced regional sustainability.

Actions:

1. Expand visibility of *TNS* in schools, and facilitate the adoption of the *TNS* system conditions as operational principles in the educational institutions.
2. Serve as a center for educational networking in support of sustainability initiatives and collaborative grant writing among institutions.

Objective D:
Provide educational leadership in the form of summer sustainability institutes and major higher-education areas of study in Environmental Leadership and Sustainability.

Actions:

1. Collaborate with Northland College, WITC, LCOCC, regional agencies, tribes and other partners to offer summer institutes and other conferences to teach people from throughout the nation about the principles and practical applications of sustainability. The first one could be held in the summer of 2007.
2. Explore the variety of Environmental Leadership and Sustainability programs across the nation to identify common attributes and unique elements of each. Work with interested faculty from each institution to review other programs, reflect upon specific institutional strengths and interests, and design a program specifically for the northern Wisconsin and Chequamegon Bay area.
3. Encourage Northland College, WITC and LCOCC to collaborate to offer Environmental Leadership and Sustainability as major areas of study, which include service learning and other practical applications throughout the region. Provide assistance as needed for program design and marketing to enable the program to become a reality.

Energy/Waste

Energy

Goal 1:
The Chequamegon Bay region has reduced total fossil fuel consumption for electricity and heating by 30% since 2006 through the use of renewable and alternative energies, green building techniques and city-wide policies, coordinated by SCI's Energy Conservation and Awareness Program.

Objective A:
Partner with Bayfield Electric and Xcel Energy to produce cleaner energy.

Actions:
1. Gain technical and financial support for small scale renewable energy generation.
2. Assist utilities and new producers in providing 20% of energy from alternative sources including five commercial scale wind turbines in the region.
3. Work with Xcel Energy and City of Ashland to provide heat for businesses on main street Ashland from Xcel Energy's hot water line.
4. Lead coalition of partners that enables the Xcel Bayfront plant to convert to 75% bio-based fuels.
5. Create an inventory of current energy sources and total usage in region.
6. Develop an online energy use database that is automatically updated for each billing cycle; providing homeowners, businesses and government offices the ability to receive their monthly energy use and bills online and monitor their energy use.

Objective B:
Reduce dependence in region on imported forms of energy by 20% from 2006.

Actions:
1. Promote energy efficiency through the formation of a Chequamegon Energy Conservation Program, which provides education and awareness by working with residences and business to improve building and business efficiency.
2. Facilitate energy audits and energy load assessments to businesses and residents as part of the energy program so that 50% of businesses and 50% of homes have had an audit completed by 2011.
3. Develop an energy inventory and monitoring database connected to the web that allows homeowners, businesses and government buildings to enter their monthly energy use in order to record and observe trends and progress.
4. Identify and publicize financial assistance opportunities for energy efficiency.
5. Provide technical assistance for citizens interested in seeking funding for energy efficiency remodeling projects.
6. Partner with Wisconsin Focus on Energy program to enlist state expertise and funds to further energy efficiency.
7. Investigate and promote opportunities for utilizing Combined Heat and Power (CHP) systems.

Objective C:
Produce a *Green Home Bulletin*, a tool for homeowners wanting to connect with others in the region who have incorporated green designs into their homes; lists a contact number and

description of projects as well as a guide for green building materials and builders in the area (see Housing section, Objective C, Action b).

Actions:

1. Research format and content for bulletin.
2. Identify volunteers to write and distribute the bulletin.
3. Solicit contributors and 'subscribers'.
4. Develop a business plan for the bulletin.
5. Develop an online web page where homeowners can post their information and link to a local used material bulletin web page.

WASTE – Reusable Resources

Goal 1:
The concept of "Waste" has been replaced with "reusable resources." This conceptual change occurred over the past five years through education as well as practical applications of new technology. Almost no "waste" in the region is land-filled.

Objective A:
Assess how the region is managing its waste stream.

Actions:

1. Convene a meeting with cities, towns and the tribes to get an overview of waste management practices in the region.
2. Coordinate an assessment of the current systems with waste contractors.
3. With assistance from contractors and municipalities quantify the annual waste generated in the region by type.

Objective B:
In cooperation with the Chequamegon Institute, install a low- or no-emissions waste-to-energy system that re-uses non-recyclable waste in the region to create synfuels for local transportation needs.

Actions:

1. Research best practices and assist in securing grants for pilot project.
2. Assist in conducting a comprehensive inventory of biomass resources in the region.
3. Encourage and promote involvement of cities, tribes and counties in bio-based energy projects.

Objective C:
Support creation of a compost collection center located in all towns as part of a region-wide contract with a new reusable resource management company.

Actions:

1. Secure a grant that provides education on composting and enables establishment of centers and distribution of bins.
2. Provide compost generated at each center to local citizens and farmers.
3. Encourage and facilitate the development of community gardens, available in all towns, where compost is also available and wooden raised beds for senior citizens allow for easier gardening.

Objective D:
Provide comprehensive recycling centers in all communities of the Chequamegon Bay region (see Housing, Objective C).

Actions:

1. Encourage drop off and resale of used lumber and other construction and building materials.
2. Create the used material bulletin, print and web based -linked to the new *Green Home Bulletin* - that allows citizens to list any building materials or other used items for sale, exchange or give-away.
3. Assist small businesses in starting repair and reuse shops for items that had previously been sent to landfills.

Agriculture & Food Security

Goal 1:
Strong, sustainable, and local food systems that ensure access to affordable and nutritious food for people in the region have been established.

Objective A:
Follow the lead of F.E.A.S.T.* in our agricultural outreach.

Actions:

1. Collaborate with our well-established Chequamegon Bay Sustainable Agriculture Coalition (F.E.A.S.T.), to carry out baseline inventories of who our regional farmers are, what they produce, what they would like to produce, how far away their markets are, how they access transportation, and what barriers they face in selling to local markets.
2. Collaborate with F.E.A.S.T. to secure funding to train local farmers in sustainable agriculture techniques and to develop local distribution networks.
3. Provide on-going support for F.E.A.S.T.'s 2035 goal of creating a regionally self-sufficient food system within the Chequamegon Bay area which can provide an adequate, affordable, nutritious and fresh diet from local producers for all citizens at all times.
4. Publicize community gardening projects (Odanah Gitiganing Gardens, Ashland Green Thumb Gardens, public school gardening projects, Northern Great Lakes Visitor Center Three Sisters Garden, and Red Cliff raspberry gardens), and encourage more community and home gardens.
5. Support and promote local Farmer's Markets.
6. Collaborate with F.E.A.S.T. in grant-seeking for expansion of the Mobile Farmer's Market, a pilot project to serve locally grown produce in local schools, and for expansion of agriculture production in the region.

Objective B:
Collaborate with Ashland and Bayfield counties to develop the Experimental Agriculture Station in Ashland into a bio-based, economic development research facility.

** F.E.A.S.T.(Food, Education, Agriculture, Sustainability & Tradition)*

Housing

Goal 1:
Builders, contractors, designers, homeowners and municipalities in the Chequamegon Bay Region understand and embrace green building techniques.

Objective A:
Coordinate design and construction of a Green Model Home that will provide the region with an example of an affordable green building design and techniques.

Actions:
1. Raise funds for design, construction and land/lot purchase. Develop a contract with local designers and builders that includes an established project outline, supplies and costs for design and construction.
2. Complete construction of the home.
3. Develop an educational tour with materials and information on different aspects of the green-building techniques used in the model home.

Objective B:
Educate builders, contractors, designers and homeowners about green building techniques in both new construction and remodeling projects.

Actions:
1. Coordinate green building workshops for training and certification of trade members; and "how-to" workshops for homeowners through Wisconsin Green Building Association, Wisconsin Green Built Home and the Midwest Renewable Energy Association.
2. Provide information defining green building to these trade members, encouraging them to adopt green building techniques and to be listed in the *Green Pages* (See Business section, Objective B).
3. Provide green building reference stations at libraries with "how-to" books and guides, brochures, information on workshops, and copies of the *Green Pages*.

Objective C:
Make green building and reusable materials affordable and readily available.

Actions:
1. Develop section of *Green Pages* that lists local green building contractors and designers, businesses that supply or sell green building materials and sustainably harvested wood, and a glossary defining such materials with the certification requirements (Energy Star, ISO, ERG, Smart Wood, etc).
2. Develop the *Green Materials Bulletin*; a printed and online reference providing people with contact information of local homeowners/builders that have materials and supplies that can be re-used/recycled (See Energy/Waste section, Objective C).
3. Encourage distributors of green building materials in the upper Midwest and Great Lakes regions to consider outlets in the Chequamegon region on the basis of the new markets created by the eco-municipality commitments in the area.
4. Encourage more businesses to offer local green building materials including sustainably harvested wood.

5. Support efforts of local and regional sustainable forestry cooperatives to educate managers of local forests not currently meeting sustainability standards so that they can provide green material resources to the region.

Objective D:
Encourage government to adopt standards for green building practices in building codes, permitting processes, and offer incentives to homeowners to use green building techniques.

Actions:
1. Encourage ordinances that require recycling of all possible building materials whenever a demolition is approved.
2. Encourage ordinances that promote LEED or WI Green Built Home guidelines that set standards in energy conservation for homes and buildings.
3. Reward green building with tax incentives and/or reduction in utility fees.
4. Provide information to homeowners on financial incentives through various programs including Focus on Energy.

Objective E:
Encourage local municipalities to adopt land use plans that utilize compact development and encourage the preservation of natural areas.

Actions:
1. Establish density ranges for local development that encourage compact development and traditional neighborhoods.
2. Map natural areas to be preserved, and specify the criteria (e.g. steep slopes, agricultural land, wetlands, etc.).
3. Designate areas for transit-oriented development and locate denser development in those areas.

Goal 2:
Affordable and energy efficient housing is available in each community.

Objective A: Encourage municipalities to develop standards for affordable and sustainable housing, and encourage these standards to be included in new developments.

Actions:
1. Support ordinances that allow a percentage of any new development to be available specifically to residents with income below county median levels.
2. Encourage municipalities to support the rehabilitation of existing housing with energy efficient improvements.
3. Create a fund for rehabilitation of existing housing to be used by owners who plan to use energy efficient building materials and techniques.
4. Adopt standards for the energy efficiency of existing housing.
5. Encourage municipalities to allow alternative forms of occupancy, such as co-housing and cooperatives.

Imagine In 2009…
"Lakefront Nature Condominiums" were completed in Ashland. Adding 30 units to Ashland's residential base, the development drew enough buyers to fill the units in the first year of opening. Built with techniques that enabled the buildings to use 60% of standard energy requirements, they have won two national awards and are a major enhancement to Ashland.

Transportation

Goal 1:
The transportation system for the Chequamegon Bay region includes diverse modes of sustainable travel and increasingly sustainable fuel sources, resulting in a 30 percent reduction in fossil fuel consumption by 2011.

Objective A:
Compliment, expand and enhance public transportation services.

Actions:
1. Work with Bay Area Rural Transit (BART) to continue developing a comprehensive regional service network.
2. Foster the integration of BART services with tribal and elderly and disabled population transportation networks.
3. Research and develop in-town electric vehicle shuttle service that accommodates student, worker and senior activities.
4. Research the potential linkage between the BART system and area school buses for providing after-school and weekend activities.
5. Identify "Park and Ride" or Walk and Ride" stations located in each community to allow for non-BART travelers to access public transportation in the communities - especially for area events.
6. Work with Travel Green Wisconsin to develop packets and website descriptions of "Sustainable Chequamegon" transportation options for vacationers and summer residents for area Chambers of Commerce.
7. Promote long-term planning for a two-car light rail system that could eventually reconfigure the BART system.

Objective B:
Provide personal transportation options to compliment BART services for customers and community members who need temporary transportation.

Actions:
1. Encourage public purchase of high efficiency, low emission vehicles at BART drop off sites. These vehicles could use the same public access lanes as bicycles.
2. Encourage local business entrepreneurship related to the provision of a community fleet of co-op cars leased by the hour, day or week to co-op members.
3. Coordinate carpooling, park and ride stations and car co-ops.

Objective C:
Create a system of non-motorized travel routes for bicycles, pedestrians and skiers.

Actions:
1. Promote the design, funding, acquisition of easements and construction of non-motorized linkages connecting Chequamegon Bay communities.
2. Work with Ashland, Bayfield and Washburn to identify, mark and enforce bike lanes for safe urban travel.
3. Develop and promote bike-to-work incentive programs with corporate support (e.g., lockers and showers at work, reduced insurance co-pays, technical support).
4. Research the economic viability of three-wheeled bike taxis that are linked with other non-bicycle services that compliment the BART system.

Objective D:
Support development of transportation corridors among the five communities to promote natural landscapes, minimize roadside advertising and include more roadside rest areas for tourists and bikers.

Actions:

1. Work with the Wisconsin Department of Transportation and Wisconsin Scenic Byways Program to develop and implement design standards for roadside aesthetics in the Chequamegon Bay region.
2. Market sustainable transportation initiatives at roadside rest, historical markers and park-and-ride sites.

Objective E:
Provide fossil fuel alternatives to area consumers.

Actions:

1. Work with area communities and the Wisconsin Department of Transportation to provide incentives for using public transportation (fossil fuel tax and road maintenance surcharges, etc.). The value of the surcharges could be returned through "complimentary" tickets for BART.
2. Encourage the provision of storage and access to bio-diesel and/or other alternative fuels for city vehicles; BART buses and Apostle Island water craft (Apostle Island National Lake Shore, Bayfield ferry line, U.S. Coast Guard). Locally produced sources would be given priority including Ashland Agricultural Experiment Station.
3. Develop a new vision for gas stations/convenience stores. Research and identify tax incentives for businesses to provide access to alternative fuels, especially bio-diesel and its future fuel cousins. These stations could provide both fuel, and locally produced convenience items from green sources and provide the maintenance functions for the co-op cars, electric carts and bike taxis.
4. Secure funding for 12-volt generators and inverters attached to exercise bike at the health center, retirement homes, schools, college, etc.

Objective F:
Link area sustainable transportation opportunities with the Midwest.

Action:

1. Work toward establishing linkages with transportation systems in Superior, Duluth, Madison and eventually Minneapolis/St. Paul.

Population and Consumption

Goal 1:
Educate community leaders, elected officials, and the general public on population, consumption, and carrying capacity issues.

Objective A:
Integrate discussion of these concepts into existing AFS/SCI presentations on Housing, Transportation, Natural Resources, and Energy, for example, and emphasize that all these issues are inter-connected, and that programs designed to affect one issue will impact all the others.

Actions:
1. Create a committee to organize training and workshops and report directly to AFS/SCI leadership on work and progress.
2. Conduct in-house training and workshops on population, consumption, and carrying capacity issues for those who will present the SCI five year plan to the public.
3. Develop stand alone presentations for specific audiences that directly focus on these issues.
4. Take these presentations on the road to engage in discussion and Q & A with targeted audiences.
5. Observe reaction and response from public and fine tune presentations for clarity and effectiveness.

Goal 2:
Establish partnerships with Northland College, Sigurd Olson Environmental Institute, and other appropriate institutions to develop a research project for the purpose of obtaining up to date information and current data on local and regional population, consumption, and carrying capacity levels and trends.

Objective B:
Create a data-base of per capita food, housing, transportation, economic activity, and energy consumption by our local and regional population and determine the impact on our local and regional environment.

Actions:
1. Create a committee to conduct and oversee a research project, with individuals acting as liasons to the various institutions, and report directly to AFS/SCI leadership.
2. Use research and data base to support Goal 1 education efforts.
3. Share information with local communities to assist them with their comprehensive planning and their efforts to move toward sustainability.
4. Work with the American Planning Association and the Wisconsin Towns Association, and other public and private organizations and agencies for information and guidance.
5. Develop long term community planning initiatives and programs based on research, current data, and projections.

Natural Resources

Goal 1:
Watershed protection and land use management within the Chequamegon Bay region focus on **protecting** critical aquatic and terrestrial habitats, biodiversity, air and water quality, **promoting** sustainable agriculture and forest management, and **limiting** forest fragmentation, soil erosion, invasive species and community sprawl.

Objective A:
Facilitate collaboration among the many agencies and volunteer organizations working on behalf of regional watershed protection and land use management.

Actions:
1. Encourage the UW-Extension Basin Educator to assure that effective collaborative plans are in-place and operative for watershed and source-water protection efforts throughout the Chequamegon Bay region.
2. Encourage or support the establishment and monitoring of stormwater management plans in all Chequamegon Bay communities that comply with national stormwater regulations.
3. Help to restore or revitalize the lakefront in each community with recognition that it is a social, environmental, and economic asset to each community.
4. Support efforts by FEAST to promote and enhance conservation agriculture programs.
5. Support UW-Extension offices and other regional agencies in their work with Counties and Towns to establish effective zoning regulations, programs and policies which result in bringing a close to forest fragmentation.
6. Encourage and support strong regional involvement and grant-writing to advance the Great Lakes Regional Collaboration (GLRC) and the Lake Superior Lakewide Management Plan (LaMP).
7. Support any municipality efforts in their efforts to develop strategies and policies to minimize community sprawl throughout the region.

Goal 2:
Develop a suite of indicators to measure progress towards achieving social, economic, and environmental sustainability.

Objective A:
Use sustainability indicators published in the Lake Superior Lakewide Management Plan (LaMP) as the basis for developing sustainability indicators for the Chequamegon Bay region.

Actions:
1. Consult with LaMP (Lakewide Management Plan) sustainability experts on indicator development.
2. Look to other published sustainability indicators for additional guidance.
3. Consult with other regional experts on feasibility of specific indicator development in the Chequamegon Bay region.
4. Seek grant funding to develop and implement sustainability indicators.

Appendix A

The Natural Step Framework

The Natural Step Framework

The Natural Step was founded in 1989 by Swedish oncologist Karl-Henrik Robèrt. He developed a scientifically-based framework, based upon the laws of thermodynamics and natural cycles. The core of the framework lies in the four **System Conditions**:

1) **In order for a society to be sustainable, nature's functions and diversity are not systematically subject to increasing concentrations of substances extracted from the earth's crust.**

   Explanation: Human activities such as the burning of fossil fuels and the mining of non-renewable metals and minerals must not lead to an increase of these substances in the environment. When these substances increase beyond certain threshold levels, there are negative impacts upon living organisms and ecosystems. These problems include the increase of greenhouse gases which leads to global warming, contamination of surface and ground water, acid rain increasing leaching from water and terrestrial ecosystems and so forth.

   Suggested Actions: This condition suggests the need to profoundly reduce our consumption/ dependence upon fossil fuels, and implement comprehensive metal and mineral recycling programs.

2) **In order for a society to be sustainable, nature's functions and diversity are not systematically subject to increasing concentrations of substances produced by society.**

   Explanation: Humans have a great capacity to generate new substances in response to perceived societal difficulties. Such efforts can be benign, but have often generated many more problems in the form of persistent substances such as DDT, PCBs and freon. Synthentic substances can remain in our biosphere for many generations, bioaccumulating in the tissue of organisms up the food chain. Such substances can directly cause cancers, effect nervous system and upset other biological functions.

   Suggested Actions: Humans need to find more benign alternatives to persistent human-made substances that remain outside the natural cycles of nature.

3) **In order for a society to be sustainable, nature's functions and diversity are not systematically impoverished by physical displacement, over-harvesting or other forms of ecosystem manipulation.**

   Explanation: At this point in the Earth's history, much of the global energy stores are used to support a single species - *Homo sapiens*. The Earth has a tremendous variety of animals and plants found in nature - the foundation of ecosystem health and stability, essential to sustain life on this planet. People have encroached upon nature by destroying the habitat of other species.

   Suggested Actions: Humans need to develop and implement strategies to retain biodiversity, and maintain and restore the capacity of nature to renew itself and rebuild waste into resources.

4) **In a sustainable society, resources are used fairly and efficiently in order to meet basic human needs globally.**

   Explanation: If several billion humans lack adequate nutrition while millions of others have more than they need, there is lack of fairness regarding basic human needs, which can lead to social instability.

   Suggested Actions: This system condition suggests a need to address both human population growth - regionally and globally – as well as per-capita resource consumption.

Source – *The Natural Step Story* by TNS founder, Karl-Henrik Robért

Appendix B

Eco-municipality resolutions adopted by the Cities of Washburn and Ashland, WI

RESOLUTION #05-021

City of Washburn, Wisconsin

Adoption of Sustainable Community Development Policy

WHEREAS, in the sustainable society, nature is not subject to systematically increasing concentrations of substances extracted from the Earth's crust, because human society mines and brings into use substances from below the Earth's surface, that along with their emissions are steadily accumulating at levels far greater than their natural occurrence and cannot break down further; and,

WHEREAS, in the sustainable society, nature is not subject to systematically increasing concentrations of substances produced by society, because human society has been manufacturing synthetic substances faster than these materials can be broken down, and,

WHEREAS, in the sustainable society, nature is not subject to systematically increasing degradation by physical means, because human activity is breaking down natural systems—land, water, forests, soil, ecosystems—by depletion and destruction faster than these natural systems can renew themselves; and,

WHEREAS, in the sustainable society, human needs are met wordwide, because if people around the world cannot meet basic human needs—air, water, food, shelter, means of livelihood, mobility, equal treatment, equal access, safety, participation in decisions that affect our lives, the right to peaceful enjoyment of life, a connection with nature, and psychological and spiritual connection and meaning—then this inequality will continually undermine the goals identified above; and,

WHEREAS, by endorsing sustainable community development, The City of Washburn is joining an international network of eco-municipalities, and taking the initiative to become one of the first four eco-municipalities in the United States; and,

WHEREAS, the City of Washburn has a pledge of support through mentorship and consulting from The National Association of Swedish Eco-Municipalities;

NOW THEREFORE BE IT RESOLVED that The City of Washburn hereby endorses the principles of sustainable community development, as proposed in The Natural Step Program, and agrees to apply these principles in its planning, policy making, and municipal practices.

Adopted by the Common Council for the City of Washburn, Wisconsin this 11th Day of July, 2005.

_____

Irene Blakely, Mayor

RESOLUTION # _____

City of Ashland, Wisconsin

Eco-Municipality Designation Resolution

Adoption of Sustainable Community Development Policy

WHEREAS, the City of Ashland has adopted a Comprehensive Plan (2004 – 2024) that calls for "The Making of an Exceptional City", and includes dozens of references to sustainable practices; and

WHEREAS, the adoption of the four systems conditions of the Natural Step can provide a framework that will assist city employees and elected officials in moving in a more sustainable direction; and

WHEREAS, the willingness of the city to move in the direction of becoming an eco-municipality can serve as a model for others and encourage economic development along similar lines in our city and region; and,

WHEREAS, the City of Ashland has a pledge of support through mentorship and consulting from The National Association of Swedish Eco-Municipalities; and

WHEREAS, the following four guidelines were developed by the American Planning Association to help communities implement sustainable practices:

1. Reduce dependence upon fossil fuels, and extracted underground metals and minerals.

2. Reduce dependence on chemicals and other manufactured substances that can accumulate in Nature.

3. Reduce dependence on activities that harm life-sustaining ecosystems**.**

4. Meet the hierarchy of present and future human needs fairly and efficiently.

NOW THEREFORE BE IT RESOLVED that The City of Ashland hereby endorses the principles of sustainable community development described herein, and agrees to apply these principles whenever possible in its planning, policy making, and municipal practices.

Adopted by the City Council of Ashland, Wisconsin this 13th day of September, 2005

_____ _____
Fred Schnook, Mayor Date

_____ _____
Attorney Date

_____ _____
City Clerk Date

Office of the Clerk and Mayor

125 South First Street - P.O. Box 1170
Bayfield, Wisconsin 54814
Phone (715) 779-5712
cityclerk@charter.net

RESOLUTION #360

City of Bayfield, Bayfield County – Wisconsin
A Resolution: A Commitment to Sustainability in the City of Bayfield

WHEREAS, The City of Bayfield acknowledges that the people of Bayfield, Wisconsin desire to create a stable, sustainable future and acknowledge that such a future is not certain. We recognize that it will take the goodwill and determined work of individuals and communities around the world to achieve this goal. We wish be part of this international network and declare sustainability to be a goal of this City. We wish to integrate our economy, environment, society and governance in ways that foster vibrant
social and economic conditions, and a healthy ecosystem. To that end, we commit ourselves to creating the conditions necessary for a sustainable future. By seeking innovative and flexible solutions to the challenges that confront us, by sharing our knowledge, and by coordinating our actions, we strive to:

1. Reduce and eventually eliminate our contribution to the progressive buildup of materials (and their associated wastes) that are extracted from the Earth's crust.
2. Reduce and eventually eliminate our contribution to the progressive buildup of synthetic materials produced by human society.
3. Reduce and eventually eliminate our contribution to the ongoing physical degradation of the Earth.
4. Reduce and eventually eliminate our contribution to conditions that undermine people's ability to meet their basic needs.

THEREFORE, BE IT RESOLVED that the City of Bayfield declares its commitment to sustainability as outlined above.

Adopted this 13th day of December in the year 2006 and signed.

Larry MacDonald, Mayor: _____
Joe Lievois - Councilor from District 1: _____
Tom McMullin - Councilor from District 2: _____
Eric Fredenberg - Councilor from District 3: _____
Mark Musolf - Councilor from District 4: _____

THIS IS TO CERTIFY THAT the foregoing is a true and correct copy of a resolution duly and legally adopted by the CITY OF BAYFIELD at a regular meeting held on the 13th day of December in the year 2006.

Billie Hoopman, Clerk: _____