Northern Lakes Conservation Region

Final Conservation Template
November 2006
Acres in Conservation Region
8,390,473

Population
240,000 (total)
99,000 (employed)
18 (people per square mile)

Population Change
2000 - 2010  +11%
2000 – 2025  +17.5%
1995 – 2025 Individuals over 65 years of age  +67.3%

Percent of Land in Federal, State, or Local Public Ownership
42.4%

Counties (All or Part)
Aitkin, Becker, Beltrami, Carlton, Cass, Clearwater, Crow Wing, Hubbard, Itasca, Koochiching, Mahnomen, Morrison, Ottertail, Polk, St. Louis, Todd, and Wadena

Natural Characteristics
Coniferous Forests
Deciduous Forests
Wetlands
Lakes

Ecological Classification System Subsections
Pine Moraine and Outwash Plains
Chippewa Plains
St. Louis Moraines
Tamarack Lowlands

The Northern Lakes 50 Year Vision is an articulation of the natural resources that are most cherished in this region, recognition of the challenges they face, and a vision for preserving and enhancing those resources for future generations. The Campaign for Conservation’s goal is to coordinate the many wonderful ideas for and shared concerns about the future of natural resources in our state. Minnesotans outdoor traditions are challenged as never before. The 50 Year Vision is our answering the call and providing answers to meet those challenges head on.

No region of the state better demonstrates the tensions between what defines Minnesota as a place of natural beauty and the unrestrained development pressures associated with population and economic growth. The land use pressures are distinctly different in the southwest area of the region as opposed to the northeast area. However, there is continuity throughout the region in the breadth and quality of its magnificent wealth of natural resources. The Northern Lakes Region is truly blessed with clean lakes, meandering rivers, abundant forests and wildlife. This area of
Minnesota serves as the water source for a great deal of the country. Its clear waters and clean air serve as the cornerstone for a quality of place seldom equaled in the nation and the basis for sustained economic growth. With easy access to trails, parks, hunting and fishing, and an aura of tranquility that conveys what many feel is the unique spirit of the North Woods, the region’s amenities have become a powerful lure for tourists, second homebuyers and retiring seniors.

In the next 50 years, the population is expected to explode in this part of the state. To preserve what makes the Northern Lakes Region so attractive, conservation strategies need to be coordinated with development. When Minnesotans speak fondly of, “Up North”, “to the Lake” or, “to the Cabin” they’re often speaking of the Northern Lakes region. Despite the challenges, it’s not too late for this region to retain its natural character. But it’s not too early either.

I. Why We Live Here

This conservation region is entirely within the Drift and Lake Plain ecological section. No waters flow into this area as it serves as the source of our great Mississippi River. It includes an area containing all or portions of 17 counties with Becker and Clearwater Counties on the west, Beltrami and Itasca Counties on the north, Aitkin County on the east and Crow Wing County on the south.

There are numerous lakes and wetlands with forest types that broadly include deciduous forests, coniferous forests, mixtures of these two types, and large areas of conifer swamp forests. Large areas of unbroken forestlands characterize this conservation region. The Mississippi River flows through the zone with the headwaters located in Itasca State Park on the north boundary. The zone includes hundreds of diverse lakes and associated wetlands, including Leech, Itasca, Ten Mile, Upper and Lower Whitefish, and Gull Lakes.

II. Current Conditions

A. Demographics and Economy

Grand Rapids, Bemidji and Hibbing, and the Brainerd area, are major population centers. The population of the Northern Lakes Region has grown approximately 8% over the last ten years, and is expected to see a significant increase in the next 30 years. From 1990 to 2000, the Brainerd Lakes area grew the fastest -- at nearly 25%. That economic region is expected to grow another 64% from 2000 to 2030.¹ And households are growing faster than the population. Over the past 25 years, households grew by 30% and from 2000-2030, the number of households is expected to increase by an additional 80%.² From 1990-2000, four counties within the Northern Lakes Conservation Region (Aitkin, Hubbard, Crow Wing and Cass) saw a population increase of 24% or more than twice the state average.

This increase in number of households and their location among the relatively small amount of upland in the area will place an enormous strain on the region’s infrastructure and natural resource base.

¹ Intelligent Growth: Regional Planning for the Lakes Area, Regional Business Council of the Brainerd Lakes Area Chambers of Commerce, May 2006
² Ibid
There are several timber mills in the zone that provide markets and employment. Additionally, the government, the service industry, tourism, and retail trade are major segments of the economy with tourism and the service industries that cater to tourism becoming increasingly important. State and county forests land provide wood and fiber to the timber products industry as well as offering recreational opportunities. Thirty-one different State Forests consisting of 1,110,738 acres of state-owned lands are important contributors to the local economy. Within the statutory boundaries of these state forests lie 2,134,382 acres leaving about 1,369,000 acres of inholdings of various types. Within the nine county core area (Aitkin, Becker, Beltrami, Cass, Clearwater, Crow Wing, Hubbard, Itasca, and Wadena) of this region there are approximately 5,213,000 acres of timberlands of which 2,295,000 are privately owned (44.0%). From this timberbase about $47 million of pulpwood and sawtimber were produced in 2004 resulting in a value-added impact of $1.9 billion to the regional economy.

The second major economic driver in the Northern Lakes region is tourism. The Minnesota Department of Trade and Economic Development estimated that in 1995 the value of domestic travel and tourism in the nine core counties was $967 million.

B. Land and Habitat

Forestry and outdoor recreation are the most important land uses in this area today. Agriculture is not widespread, especially in the eastern portion of the region. The current land use is:

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest/shrubland</td>
<td>48.6%</td>
</tr>
<tr>
<td>Wetlands</td>
<td>23%</td>
</tr>
<tr>
<td>Lakes/Rivers/Streams</td>
<td>8.8%</td>
</tr>
<tr>
<td>Pasture/hay</td>
<td>10.8%</td>
</tr>
<tr>
<td>Row crops/small grain</td>
<td>06.7%</td>
</tr>
<tr>
<td>Bare rock/quarries/gravel pits</td>
<td>01.1%</td>
</tr>
<tr>
<td>Urban</td>
<td>00.8%</td>
</tr>
<tr>
<td>Cultivated grasses</td>
<td>00.2%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Additionally, the area contains a significant amount of public land, approximately 42%, with approximately 9% owned by the federal government, 17% owned by the state and managed by the counties and 7% owned and managed by the state with the vast majority of this state ownership in two of the 31 State Forests in this region. The more than 1.1 million acres of State Forest lands are an important part of the local economy and when combined with the more than 1.3 million acres of private state forest inholdings, it is clear that managed forestlands are a dominant component of the landscape. Also, there are 132 Wildlife Management Areas in the region. Federally owned land includes the Chippewa National Forest.

C. Lakes, Rivers and Wetlands

Water quality of lakes, wetlands and rivers is increasingly impacted by lakeshore development. Marginal lakeshores, once determined unsuitable for residential development, are now being developed. The high percentage of wetlands puts an even greater strain on the upland acres yet undeveloped. The increase of impervious surfaces, as well as increased erosion when steeper slopes are developed, increases runoff into lakes and is a significant concern.

Groundwater quality and quantity is also a pressing concern. Currently, many of the region’s landfills, feedlots and known leaky underground storage tanks are in areas considered vulnerable
to contamination of the groundwater resource. Most the larger towns in the area are also situated in areas with high potential for groundwater contamination due to soil conditions. Very little of the areas identified as susceptible to groundwater contamination are publicly owned.

For the Northern Lakes Region, the Minnesota Pollution Control Agency has identified 53 stream and river segments and 182 lakes as impaired waters mostly the result of nutrient enhancement and mercury contamination.

D. Fish and Wildlife

This conservation region encompasses the bulk of Minnesota’s famed “lakes region” and has significant fisheries for all of the state’s major game fish species including walleye, northern pike, largemouth and smallmouth bass, muskellunge, bluegill, and black crappie. It includes a number of Minnesota’s most prominent fishing lakes including Leech, Winnibigoshish, Cass, Upper Red, Ottertail, Gull, Whitefish, Bemidji, and Bowstring. Rivers such as the Mississippi and Ottertail also have significant multi-species fisheries. Nearly 9% of the surface area of the region is covered by lakes, streams, or rivers.

Although not broken down by region, as of 2001 there were over 1.6 million anglers in Minnesota who expended $1.3 billion dollars in fishing related activities. Since the Northern Lakes region contains such high quality fisheries resources, it is safe to assume that a significant portion of this activity took place in the region.

Game species are abundant throughout the region. Whitetail deer are dominant. Ruffed Grouse, Spruce Grouse, small game and bear round out the most popular species. Most of the zone is north of the pheasant range and wild turkey range, but as those ranges creep northward, that could change. Forest development patterns can be greatly impacted by certain wildlife species, especially deer when the population is high. In 2001, there were 597,000 hunters in Minnesota who spent $483 million.

There are over a hundred wildlife species of greatest conservation need in this zone, including the Sharp-tailed Grouse, Red-shouldered Hawk, Bald Eagle, Common Loon, Cerulean Warbler, the lynx, the Blanding’s turtle and the wood turtle. Key habitats for the Northern Lakes region were identified in the Minnesota Comprehensive Wildlife Conservation Strategy as being non-forested wetland and upland coniferous forests. This area is also home to the Timber Wolf and other “watchable wildlife” species such as the Bald Eagle and Osprey. The Northern Lakes are also known for the vast areas of wild rice that is important for waterfowl and the growing market for human consumption. While the MN Duck Plan does not cover the entire region, focusing mainly on the Prairie Pothole area of the state, the many shallow lakes of the region, particularly in its northern section, are important habitat and are particularly vulnerable to the effects of development.

There have been a number of efforts to identify critical biodiversity lands within this region. The Minnesota County Biological Survey identified 48,321 acres in 69 sites of significant biological diversity although the survey work is still underway in Itasca, Hubbard, Wadena, Becker, Clearwater, St. Louis, and Beltrami counties and the data is not completely analyzed for others. Of these ecologically significant lands, 23.1% is in public ownership. The Nature Conservancy conducted statewide ecoregional planning and identified 16 large areas (portfolio sites) comprising 2,145,014 acres that contained important biodiversity features. These portfolio sites are 49.3% publicly owned.
E. Recreation

Recreational activities tend to be centered on water and there are numerous resorts in the zone. Itasca Park, Minnesota’s first state park, is a major tourist attraction. There are five other state parks, Scenic, Lake Bemidji, Schoolcraft, Savanna Portage, and Crow Wing, which are located in this region. Together with Itasca they consist of over 53,000 acres. The Chippewa National Forest (620,470 acres), along with 31 state forests (1,110,738 acres), provides a variety of year around recreational activities. The Minnesota Legislature has authorized 246 miles of state trails, of which 191.6 are currently developed and in use. The popular Heartland and Paul Bunyan Trails are located within this region.

The North Country National Scenic Trail that is slated to run from Lake Champlain in New York to Lake Sakakawea State Park in North Dakota crosses the region. There are 110 miles of existing trail, mostly within the Chippewa National Forest and Itasca State Park, but in the future the trail is planned to cover over 243 miles in total across the region.

The Paul Bunyan Scenic Byway traverses a circle of 54 miles around the lakes area consisting of portions of Highways 11, 3, 15, 16, 66 and 1. Established in 1999, the byway is a part of the National Scenic Byways system and widely promoted by the state and local businesses. More and more, byways are becoming a target destination for travelers and other scenic byways in the region continue to gain interest.

Minnesota’s Scientific and Natural Areas, the state nature preserve system, includes 12 sites from the Northern Lakes Region. Together they total 11,223 acres that protect significant natural communities and rare species.

Within the state of Minnesota in 2001, there were 1.5 million wild bird observers who spent $531 million. While this region rightly receives a great deal of attention for its abundant game species, the non-game species serve an important ecological and economic role in the area. There are a number of high quality bird-watching sites in the region that attract not only local birders but enthusiasts from other parts of Minnesota and nationally.

Approximately 45% of this region is open to hunting assuming access is available on public and corporate-forest lands minus lands such as state parks and SNAs where hunting is limited. The primary species hunted are deer, Ruffed Grouse, various waterfowl species, and black bear. Over 107,300 acres of land are managed within the 132 WMAs found in this region. Over half of the region or more than 4 million acres have been identified by Ducks Unlimited in their Living Lakes Initiative as important habitat for migratory waterfowl.

Fishing is an important recreational draw and contributes to local economies. There are 686 lakes of over 150 acres and 639 lake access points to service them and other smaller lakes. Within this region there are also 581 miles of designated trout streams. Access to these streams is provided by some of the stream and river access areas found in the region.

The western portion of the Northern Lakes Region is identified by the State Park Land Study as having some of the highest recreational needs in the state. Despite the presence of Itasca State Park, a significant portion of this zone includes areas where there is no state park with a 30-mile radius. However, the Minnesota State Park System Land Study did not call specifically for any new parks to be located in this region. The State Park study did suggest that the 2,223 acres of inholdings within existing statutory state park boundaries do need to be acquired. The Brainerd Lakes Area Conservation Collaborative (BLACC) has noted that there are surprisingly few
managed public recreation opportunities in the area despite the abundance of lakes and tracts of publicly owned land.

In addition to the increased need to accommodate passive recreation, there is the ongoing issue of accommodating active recreation such as all-terrain vehicles (ATVs) and snowmobiles on the public trails. The balance between conflicting recreational activities will become increasingly difficult in the years to come.

III. Conservation Challenges

A. Growth Management & Patterns

Economic growth provides jobs, prosperity and adds to Minnesotans’ quality of life. But it must be coordinated with conservation to be lasting and widespread. Essential natural resources such as lakes, wetlands, forests and wildlife are reduced in quality and quantity when growth comes unhampered.

Many communities seek to preserve their rural character by mandating relatively large minimum lot sizes (2.5-5 acres). Unfortunately, this often has the unintended consequence of inducing fragmentation and diminishing the natural resource values the community sought to preserve. Without a clear vision of the long-term impacts of land use decisions, the region will not be able to sustain its cherished quality of place.

The population has grown approximately 8% over the last ten years. The populations of Cass and Crow Wing counties are projected to increase by over 60% by 2030. This is a major reason for the increased development pressure especially on shoreline and riparian corridors throughout the region.

The area around the city of Brainerd swells in population dramatically each summer. Termed “amenity migration” by demographers, this phenomenon will continue to draw people interested in living in areas with high natural amenities such as forested and lake areas. Year-round residents are becoming more common and are increasingly converting small lake cabins into larger homes. Planned highway improvements are expected to decrease the commute time from the Twin Cities area and may further contribute to population growth and housing density.

While only a small percentage of the landscape (0.8%) is classified as urban, this figure can be deceiving. Development in this area tends to be concentrated in the most vulnerable areas, adjacent to important natural resources. An increase in the percentage of developed land by only a few tenths of one percent may lead to alarming impacts to important natural areas. The urban areas also put added stress upon the service and utility infrastructure leading to a potential rise in property taxes to pay for the new roads and sewers.

With this influx of new citizens comes an influx of new values. The newcomers want the beauty of the natural surroundings and the quaintness of small-town America, but also the conveniences of the urban areas they fled. This sudden cultural shift can make brittle the bonds of civility and create tensions that are foreign and unwelcome. These tensions make the fine balance between healthy economic growth and natural resource preservation even more difficult and the ability to create a common vision that much more elusive.

B. Declining Water Quality
Along with development there are increased threats to water quality. Lakeshore development often leads to loss of riparian buffers necessary to preserving the quality of lake water. With a decline in water quality comes a subsequent decline in property values. To target conservation actions, the BLACC report identifies lakes that are vulnerable to degradation from encroaching development. Also, the BLACC report identified a viability score for each of the lakes in their study. In addition to using these two measures, the BLACC was able to establish “potential priority conservation lakes” based on the following characteristics:

- Highest percentage of buffer in natural cover types
- Lowest percentage of buffer in converted land use types
- Highest amount of watershed in public ownership
- Highest amount of buffer rated by MN County Biological Survey as high or moderate
- Presence of species of concern
- Relative absence of invasive exotic species
- Fewer number of public boat ramps
- Water bodies listed as impaired by MPCA

Atmospheric mercury contamination is an ongoing problem that is made more difficult with the sources being predominantly remote.

In addition to the importance of protecting surface water, there is also a pressing need to ensure that the groundwater is protected. Nearly all drinking water in the region comes from shallow wells that can become contaminated in these sandy soils. Groundwater also serves as the primary source for most of the lakes and wetlands in the area. Increased development pressure and compromised or ill-conceived septic systems will pose a threat to both the quality and quantity of groundwater in the Northern Lakes.

C. Aquatic Invasive Species

Aquatic invasive species threaten the ecological integrity of the regions lakes as well as the economies and recreation that these waters support. Climatic change in the region will likely exacerbate the threat. For instance, curly leaf pondweed is an invasive aquatic plant that has been present for about 100 years and is already widely distributed. Milder winters may be favoring this plant and allowing it to increase in a number of lakes. Additionally, activities such as recreational boating serve as conveyance mechanisms for these invasive species. Eurasian water milfoil was first discovered in Minnesota in 1987 and has since spread to 188 lakes, including a number of lakes in this region. Zebra mussels have also been present in Minnesota since the late 1980s, but had been largely restricted to the lower Mississippi, St. Croix, Zumbro, and St. Louis rivers, and Lake Superior until the past few years when they have been discovered in Mille Lacs Lake, Lake Ossawinnamakee, and the Mississippi River near Brainerd.

D. Terrestrial Invasive Species

Terrestrial invasive species threaten the future of forests, wetlands, prairies, and other natural habitats in Minnesota. Insect pests such as gypsy moth and emerald ash borer have the potential to harm or kill large numbers of trees impacting forest health, recreational opportunities and the forestry industry. Invasive plants such as common buckthorn and garlic mustard can out-compete native plants, degrade wildlife habitat, and contribute to erosion by shading out other plants that grow on the forest floor. The earthworm is a foreign invader to the north woods and its voracious appetite is changing reforestation patterns and threatening rare and sensitive plant communities. This all leads to the challenge of trying to reduce the impacts caused by invasive species by
preventing their introduction, halting their spread and managing infestations to protect the health of our natural communities.

Another looming challenge comes from genetically modified organisms (GMOs). Not typically classified as invasive species, their effect could be even more catastrophic to the native wild rice population.

**E. Forest Fragmentation**

Sale and subdivision of large blocks of forest leads to fragmentation of the forest resource and of wildlife habitat threatening the many keystone species require large contiguous expanses of healthy forestlands. With fragmentation comes an imbalance between old and young forest age classes as well as reduced conifer composition raises a long-term threat to forest biodiversity and habitat preservation. Fragmentation also increases the likelihood of invasive species gaining a foothold and facilitating their penetration deeper into a forest stand. Fragmentation also makes reestablishing fire as a management tool increasingly difficult. The subdivision of large blocks also has the effect of reducing the amount of forestland available for timber harvest or public recreation. All these factors, in turn, make conservation even more difficult as we try to put the pieces back together again.

**F. Climate Change**

Climatic evidence indicates that winters are getting progressively warmer over the past century than they were prior to industrialization and spring arrives almost one week earlier on average. New patterns of summer temperature and precipitation can also be expected. These changes may have startling and dire consequences for this conservation zone’s flora and fauna particularly in forest tree composition. The native species may give way to generalists and sensitive species will be lost. Any conservation planning in this area must ensure that active monitoring of these climatic changes and its impacts leads to adaptive management techniques and necessary course corrections in conservation strategy.

**G. Mineral and Aggregate Extraction**

As growth pressures increase, a commensurate pressure to find local sources of aggregate, minerals and peat will also increase. These mining operations may lead to groundwater depletion and contamination that, in turn, can lead to the degradation of surface waters. Also, exposure of the groundwater can lead to an increase in the water temperature that is supplying a nearby coldwater fishery, such as a trout stream. While restoration of these pits may be required, that restoration may be many years in the future or never for pits constructed before protective laws were put in effect. Given this region’s rich reserves of these products, it is imperative that the long-term impacts of such activities be examined.

**H. Land Values**

Lands values in this area have soared in the past decade. Investors have capitalized upon the rising demand for second homes and Baby Boomers seeking a place to eventually retire. The consummate rise in property tax revenue may be a boon to some counties historically strapped for financial resources, but this infusion of money comes at the quantifiable cost of an increased need for infrastructure and the irrecoverable cost of losing the character of the North Woods. Presently, the economic forces are in favor of development and subdivision of the land with little, if any, financial incentive to conserve.
As land prices of forestland have soared in the past decade, a new threat to traditional timber harvest practices and forest sustainability has emerged. There are currently an estimated 325,000 acres in corporate ownership in this region that are part of the timber base. Throughout the state these corporate lands are being bought by Timber Investment Management Organizations (TIMOs). TIMOs often will first harvest much of the timber from the land, but instead of holding the land for a future harvest, they sub-divide it for small acreage recreational or residential sites – a trend called parcelization. They chose this course of action as the land is currently more valuable for recreational and residential uses than traditional timber harvest. This trend will not only make conservation more expensive, but also make the area susceptible to a “land rush” of second-home buyers.

I. Conflicts of Recreational Needs

As the permanent and transient population increases along with the demand for recreational opportunities, the conflicts between the various types of recreation become more acute. Bird watching does not coexist well with ATV use. Jet skiers conflict with sailors and fishermen. Likewise, those that enjoy cross-country skiing for its serenity do not mix well with those seeking the thrill of snowmobiling. There are also the long-term ecological impacts that some recreational activities have upon the land and how to mitigate for these impacts. Providing for the enjoyment of these disparate activities means separating them in time and space. This can only be accomplished by increasing the land base for recreation in a manner proportionate to the population increase.

J. Public Attitudes Toward Conservation & Current Institutional Infrastructure

It is often difficult to illustrate to the general public the long-term consequences of short-term thinking when it comes to land use decisions. It may appear that all is well, especially to those that have not been tracking the sometimes subtle detrimental changes that can come with ill-conceived development. However, all too often, not until there is sense that we are losing something in the collective consciousness do we choose to act and, often, this is too late. While public opinion polls routinely reveal that the general public cares deeply about the quality of their environment, there is seldom a clear answer to the environmental problems and hardly ever an answer that doesn’t come with some degree of sacrifice. This is not a message often welcomed by society.

In turn, the pubic and private decision-making systems that create the built environment impacting our natural environment awkwardly attempt to translate the public desire to protect our land and water into viable conservation. This disconnect between desire and action is a substantial obstacle to creating the communities we seek.

IV. Status of Current Planning Efforts

This area has benefited from excellent planning efforts among a variety of groups. The BLACC represents a model for local area planning and cooperation. Started as a multi-agency and non-governmental organization (NGO) effort in 2002, the BLACC, while focusing primarily on Crow Wing County, sought to look at the entire region to catalog the natural resource base and threats to its viability. The BLACC also sought to establish goals and recommendations for decision-makers in an effort to promote sustainable, high quality communities in the area. These goals and recommendations are included in the final BLACC report published in 2004, Inventory and
Assessment of Natural Resources in Crow Wing County, and it lays the foundation for future conservation efforts in the region.

In addition to this hallmark effort of collaboration, there are ongoing efforts by the various counties and cities in the area to amend their Comprehensive Land Use Plans to be more mindful of the growing threats to their current high quality of life. For example, the Cass County Comprehensive Plan seeks to protect large tracts of forestland as one of its top priorities. Many other communities are attempting to address the need to preserve the natural amenities of the region and need the support of government and NGOs if they are to succeed.

A great deal of effort has gone into the Upper Mississippi River Basin Water Quality plan (2003). Let by the Minnesota Pollution Control Agency, this comprehensive effort was conducting in coordination with a wide array of stakeholders and puts forth a number of recommendations for improving water quality in the area and for each subwatershed. When combined with local water management plans, this lays the foundation for successful wastewater and stormwater management in this conservation region.

From 2000-2003, the Minnesota Forest Resources Council produced a series of reports that described the current conditions and specific goals and strategies for ensuring a sustainable forest and forest products industry.

The Forest Legacy Program has protected an area of nearly 4,800 acres in the region with the purchase of conservation easements. These easements are meant to serve as buffers to Crow Wing and Pillsbury State Forests by limiting development, ensuring public access and allowing for sustainable forestry. In all, these easements will create a contiguous block of more than 22,000 acres of undeveloped forestland. This will protect one of the areas premier trout streams, Peterson Creek, as well as numerous high quality lakes and wetlands. To date, more than $3 million Federal dollars have been appropriated to this effort that is to be matched by approximately $1 million of non-federal funds. Additional Forest Legacy projects, some of much larger scale, can be expected in the future.

The WMA report notes a 50-year goal of 33,700 additional WMA acres in this zone. Of these, 23,240 acres should be directed at completing the acquisition of existing WMAs and 10,460 will be acres for new WMA lands. Focus areas would include critical wild rice lakes and waterfowl migration staging areas located in this zone that need protection or enhancement.

In addition to the aforementioned reports and plans, the area is included in the following statewide studies and programs:

- Minnesota Duck Plan, DNR & several partner agencies/NGOs, 2006
- Minnesota Forest Legacy Program, DNR, Potlatch Corp., local government and NGOs, 2006
- Minnesota State Comprehensive Outdoor Recreation Plan (SCORP), DNR, 2002
- Minnesota State Park System Land Study, DNR, 2000
- Minnesota Wetlands Conservation Plan, BWSR, DNR and other MN state agencies, 1997
- North Central Minnesota Lakes Project: [http://www.dnr.state.mn.us/lakes/ncml.html](http://www.dnr.state.mn.us/lakes/ncml.html)
V. Goals

In reviewing the plans at the state, region and local level for the Northern Lakes Conservation Region, there is an encouraging degree of commonality. There is recognition among seemingly all parties, particularly at the local level, that conservation action must be aggressively pursued to ensure the viability of the significant natural resources this region contains. At the same time, it is important to develop and manage outdoor recreation in this region that will create a sound and sustainable economic future. The following goals and strategies represent a summary and an amalgam of what has been stated in existing plans for the region.

Key industries that can enable a sustainable conservation vision for the region should be maintained. Outdoor recreation, tourism, real estate and the service economy can continue to flourish. Forestry and manufacturing practices can and must be made compatible with conservation goals, with many good examples already occurring in the region today.

1. Conserve High Value Forested Uplands, Wetlands, Lakes and Streams.
   - Develop a Conservation Team for the region to expand upon the work of BLACC, North Central Minnesota Lakes Project (NCML) and others
   - Reconvene members of BLACC and work in collaboration with NCML and Minnesota Forest Resources Council to expand process to other areas of Northern Lakes Conservation Zone
   - Develop and refine natural resource inventories in the area
     i. Consolidate inventory information into a centralized administering agency
     ii. Distinguish between state-owned land and county managed tax-forfeited lands in GIS database
     iii. Identify gaps and pursue data collection to fill needs
   - Identify and target priority lakes for conservation
     i. Use existing natural resource inventory and monitoring data to set initial priorities
     ii. Set schedule for threat assessment for each priority lake using Total Maximum Daily Load (TMDL) process for impaired lakes
     iii. Develop conservation strategy for each lake using threat assessment as tool
       1. Establish “Sustainability Committees” within each lake association in the region that focuses on long-term conservation tools
     iv. Develop and implement conservation strategies for shallow lakes that have high ecological value, are increasingly threatened and are particularly vulnerable to manmade perturbations
• Develop conservation targets and permanently protect high priority sites

  i. Using existing plans and input from state tribal, and local stakeholders, identify areas that should receive permanent protection and recommendations for suitable land use practices adjacent to these targeted areas

    1. Expand Wildlife Management Areas in accordance with WMA plan calling for approximately 23,000 acres to be acquired to complete existing WMAs and an additional 10,000 acres of new WMA lands

    2. Complete Scientific and Natural Area (SNA) acquisition targets

    3. Look to protect and enhance important waterfowl habitat to compliment the Minnesota Duck Plan’s goal of 2,000,000 acres statewide

    4. Complete the acquisition of 2,200 acres of inholdings within existing Minnesota State Parks boundaries

    5. Complete connection of Cuyuna Range Recreational trail with Paul Bunyan State trail

    6. Use and refine targets developed in Minnesota Comprehensive Wildlife Conservation Strategy as basis for prioritizing unique and vulnerable habitats

    7. Refine targets developed in Audubon Important Bird Areas, The Nature Conservancy ecoregional planning process, and the Minnesota County Biological Survey significant biodiversity sites to protect key areas for the conservation of biological diversity

    8. Complete and refine existing assessment of Aquatic Management Areas (AMAs) and target priority sites for protection

    9. Permanently protect 200 miles of critical undeveloped lake and river shoreline in the region

   10. Assess trout steams in each watershed to identify current and likely future threats and implement strategies to ensure watershed protection

        a. Examine role of beaver dams in warming trout streams and take appropriate steps to control beaver populations where necessary

        b. Examine impacts of irrigation on stream volume as well as thermal pollution and nutrient concentration
11. Enhance conservation value of United States Fish & Wildlife Management Areas in manner that compliments conservation goals of state tribal, and local government

12. Identify important potential restoration sites that compliment overall conservation strategies for the region.
   a. Use and enhance existing mitigation policies and practices as primary tool for restoration
   ii. Develop budget for conservation and stewardship costs associated with the protection of high priority sites as well as timeline for their protection
   iii. Determine most suitable ownership and management of targeted lands seeking to integrate the land bases and goals of various local, tribal, state and federal land management divisions (as well as private conservation organizations) into a holistic conservation vision for the region

• Seek to eliminate the infestation of invasive species and mitigate their impacts to natural systems
   i. Develop systematic methods for assessing the presence of invasive species
   ii. Assess impact of ATV use in relation to introduction and spread of invasive species and take appropriate action to ameliorate these impacts
   iii. Enhance regulations and enforcement actions prohibiting the import of invasive species
   iv. Work with research institutions to assess best practices for exotic and invasive species management
   v. Continue to educate the public to be diligent in preventing invasive infestations
      1. Work with lake associations on plans and funding to deal with aquatic invasive species

• Develop financial incentives for conservation
   i. Reform tax structure to incent conservation
      1. Investigate tax incentives for shoreline protection
      2. Assist in paying closing costs for donations of easements
      3. Tax credits for the donation of conservation easements
      4. Property tax incentives for the creation of lakeshore buffers
ii. Expand incentive tools beyond Forest Legacy for the protection and restoration of forestlands

1. Develop and enhance existing tax incentives for sustainable forest management

- Empower local and tribal units of government to adopt policies and ordinances that will protect important conservation areas

i. Consolidate county/city comprehensive plans into a regional plan for Northern Lakes

ii. Designate conservation overlay districts in areas of high natural value

iii. Explore need for additional and enhanced watershed management organizations in the region

1. Use Total Maximum Daily Load (TMDL) assessments as tool for development of regulation and mitigation techniques (e.g. “cap and trade” programs) that will allow for economic development without sacrificing environmental health

2. Ensure state-of-the-art stormwater management techniques are being employed as new development comes in

   a. Seek means to retrofit old and inadequate stormwater treatment systems

iv. Develop suite of ordinances specifically tailored to the unique resources of the area for possible adoption by Local Units of Government (LGUs)

v. Develop community-based restorative fire initiative for fire dependent ecosystems

1. Coordinate and conduct fire learning network to build capacity among forest managers for the use of fire as a forest management tool

2. Use forest inventory data to develop forest management plans that incorporate ecological logging, fire and other practices to accomplish the objective

3. Ensure that local ordinances are conducive to fire management techniques

vi. Explore the possibility of using Transfer of Development Rights (TDR) programs or mitigation tools, as well as other innovative mechanisms, to enable development interests to implement the conservation vision for the area
vii. Expand use of conservation easements as a tool and ensure that the resources are in place to monitor and enforce the easement restrictions

viii. Explore strategic land exchanges with counties and DNR to enhance natural resource base

ix. Develop ordinances and incentive programs that promote conservation design

x. Expand some form of BLACC’s development suitability indices throughout region to direct development

• Ensure that habitat conservation priorities take into account the importance of groundwater recharge areas

  i. Use vulnerability indices developed by BLACC to map entire region for areas susceptible to contamination

  ii. Identify important recharge areas for lakes and wetlands as well as for human consumption

• Develop mechanisms to preserve forested lands that can also ensure sustainable harvesting of timber integrating goals and strategies set forth in the 2004 North Central Landscape Region report

  i. Seek to preserve large, contiguous blocks of forest land

  ii. Develop incentives for enhancing diversity of stands of merchantable timber

  iii. Integrate Chippewa National Forest Plan conservation goals into state, tribal and local conservation goals

  iv. Work closely with the forest industry to identify and capitalize on opportunities for collaboration and accomplishment of mutual goals

      1. Refine and develop economic incentive tools for working with corporate forestland managers to protect natural resources while maintaining forest harvest levels

  v. Continue to foster and promote programs such as Forest Legacy and Forest Certification

• Develop local funding mechanisms for conservation that would leverage federal and state funds

  i. Seek more federal funding including but not limited to highway mitigation funds

  ii. Work with conservation non-governmental organizations (NGOs) to explore funding opportunities
iii. Explore use of Conservation Buyer program (purchase of land that has environmental benefit with subsequent resale of land to private parties with restrictions)

iv. Explore possibility of local bonding or taxing mechanisms that could generate the necessary resources for local match to state and federal funds

v. Determine the extent of private sector financial resources in the Northern Lakes Region
   1. Conduct assessment of private donors to determine capacity and potential opportunities for expanding private support of conservation

• Educate and empower local landowners on land stewardship principles
  i. Educate landowners on proper septic system management
  ii. Educate landowners on proper land management practices on lands adjacent to streams, wetlands and lakes
  iii. Monitor toxic substances, especially mercury, in the waters of the region and encourage state action if levels increase

• Support efforts to reverse global climate change
  i. Educate so people know climate change is happening
  ii. Design communities to reduce car use
  iii. Promote alternative energy use
  iv. Ensure that local, regional and state plans consider climate change
  v. Build coalition with industries that will be negatively impacted by climate change (e.g. tourism, forestry)
  vi. Invest in economic developments that reduce climate change

• Keep Northern Lakes Conservation Region free of genetically modified organisms (GMOs) that can contaminate the genomes of native species (e.g., wild rice and fish)
  i. Educate people about the risks of GMOs
  ii. Develop framework of stakeholder-based risk assessment before any GMOs that may impact native species can go to market (e.g. wild rice)
  iii. Work toward full disclosure of proprietary information held by private companies
iv. Support legislative efforts to regulate GMOs and work with tribal
governments to prevent genetic contamination of native species

• Local planning and economic development efforts recognize natural resources and
recreation as a cornerstone of local economy and quality of life and incorporate
conservation needs of the community into local decision-making

  i. Enhance partnerships with tourism industry

  ii. Share local successes (i.e. ordinances working elsewhere)

  iii. Quantify value of natural resources and ecological services so that LGUs
can make informed land use choices

iv. Better coordinate forest management across regions and agencies

v. Develop process for routine and mandatory training of planning and boards
of adjustment

vi. Evaluate current or proposed ordinances to ensure strong basis in
conservation

2. Promote and Manage Natural Resource-based Recreation in Harmony with Long-term
Natural Resource Conservation

• Create Parks, Trails and Recreation Master Plan that coordinates work of federal,
tribal, state and local governments and is compatible with long-range conservation
goals for the region

  i. Identify current recreational resources and identify areas lacking in
accessible natural resource-friendly recreation

    1. Work toward development of public access to low impact recreation
every 10-15 miles along waterways and for every lake greater than
150 acres in size, except when unique ecological situations warrant
greater protection.

  ii. Separate incompatible recreational activities for the enjoyment of all

iii. Develop integrated trail system (federal, tribal, state and local levels) that is
interconnected and allows for multiple use but separates incompatible
activities

iv. Use county, city and township growth projections to develop targets for
parks and trails that connect with other local or regional recreation areas

    1. Use goals of Minnesota State Outdoor Recreation Plan (2003-2008)
as foundation for local plan development

v. Site new parks to serve as buffers between develop and developing areas
vi. Complete the 246 miles of state trails authorized by the legislature

vii. Acquire and manage public beaches within each county to assure recreational access to public waters

viii. Complete the missing 133 miles of the North Country National Scenic Trail as it crosses the region

• Develop strategies to sustain hunting and fishing opportunities
  
i. Inventory hunting and fishing opportunities on private lands and determine where opportunities for access are lacking
    
    1. Develop strategies for enhancing access to private hunting and fishing lands using successful programs in other states as potential models
    
    a. Acquire lake and stream easements that allow fishing access
    
    b. Target fishing piers for areas that are historically good fishing spots

  
  
ii. Work with tourist industry to continue to promote region as destination for sporting interests

• Develop and enhance park dedication ordinances at local level
  
i. Explore using principal of 10% of developable land base or 10% of market value of developable land base as minimum for park dedication funds charged to development interests

• Through Comprehensive Plans and Zoning Ordinances, create communities that promote physical activity

• In close collaboration with tourism industry, promote region’s wealth of outdoor recreation opportunities
  
i. Ensure that conservation efforts take into account and augment natural resource-based tourist industry

VI. Opportunities and Strategies

While we look to the future in developing a 50-year vision for the Northern Lakes Conservation Region, we need to be mindful of more immediate threats and, with these threats, opportunities for conservation action. As a component of a series of three town hall meetings conducted at three different locations around the region, attendees were asked to identify pending threats and opportunities. The following is a summary of their input.

A. Development Suitability Assessment
Given the areas large amount of wetland, lakes and important forested areas as well as the premium put upon shoreline property, the designation of areas more suited to development is an important consideration. The BLACC report used a variety of metrics to create a development suitability index. This information helps to illustrate the possibilities for economic growth in a region rather than dwell on the impediments to growth and as such, serves an important role in local planning efforts.

B. Potential Influx of New and Expanded Industries

New industries from steel mills to power plants are contemplating locating facilities in this region. Mining for minerals and aggregate within the region, as well as the iron mining that exists just outside the region, poses both direct and indirect threats. Forestlands are increasingly being sold or converted including approximately 700,000 acres currently held by Potlatch and about 300,000 acres owned by Boise Cascade. These changes in land ownership or management policies by private owners of large expanses of forest can also impact hunting and fishing access as several companies are now seeking to limit visitation. Additionally, growing emphasis on bio-fuels may encourage the destruction of marginal forests in favor of growing crops that can be readily converted to ethanol. These potential shifts in the economic base of the region can have profound implications on sustainable conservation of the area.

C. Impaired Waters

Many of the region’s lakes and streams are currently regarded as impaired and corrective action will need to be taken to improve their water quality. The opportunity exists to incorporate the goals and strategies of improving water quality with the goals and strategies for managing growth in the region.

D. Policies and Laws Regarding Land Use

Recent and contemplated changes to government policies as a reaction to growing concern over the impact of regulations upon landowner’s rights creates a political environment that can make conservation difficult. When combined with the lack of thoughtful long-range planning in many areas, an opportunity exists to create an integrated and equitable plan for preserving the region’s treasured natural resources. As an example, an opportunity exists with the pending federal Farm Bill such that federal policies and funding programs could be a powerful tool for improving water quality by enhancing buffer areas along lakes, wetlands and streams.

E. Land Acquisition

Attendees to the workshops mentioned the chance for conserving several thousand acres on Lake Mille Lacs as well as possible opportunities along Leech Lake. There also exists an opportunity to acquire shoreland along some of the smaller, shallow lakes and wetlands especially at a time when the real estate market is slowing.