

Plan Summary

Northeast Landscape

Forest Resources Plan



Including Carlton, Cook, Lake and Saint Louis counties



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What is landscape-level forest management?

Landscape-level forest management is when public, private, and tribal landowners and citizens cooperatively develop and carry out a coordinated plan for forests covering thousands or millions of acres.



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Purpose of the plan

This summary overview offers a quick look at the basics of the *Northeast Landscape Forest Resources Plan*. The plan is one of six regional plans developed by the Minnesota Forest Resources Council (MFRC), as required by the Sustainable Forest Resources Act.

The purpose of the plan is to provide a detailed framework that allows landowners, local officials, resource managers and other stakeholders to work together to **voluntarily implement landscape strategies to effectively sustain the forests of Minnesota.**

Why a plan for the Northeast Landscape?

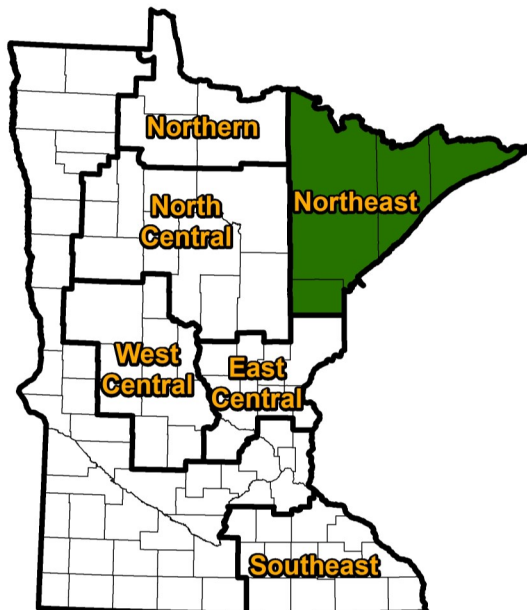
Northeastern Minnesota's forests are owned by a great diversity of interests who's forestland ownership ranges from less than one acre to over one million acres. These forests provide many benefits including timber, habitat, recreation, jobs, clean air and water. To offer these benefits sustainably, the forests need to be managed in a way that reaches across ownership boundaries.

Who the plan is for

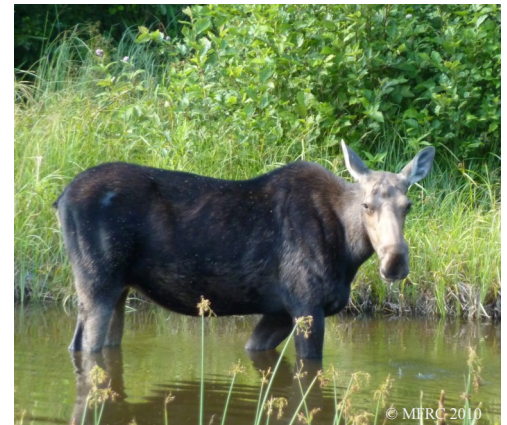
This plan is for anyone concerned about the sustainable management of northeastern Minnesota's forest resources, including:

- Landowners
- Federal, State, County, Tribal, Industrial land managers
- Local officials
- Outdoor recreation enthusiasts
- Foresters and loggers
- Forest products industries
- Resort and recreational business owners
- SWCD and natural resource managers
- Educators and students
- And anyone else interested in the sustainable management of the regions forest resources

MFRC Landscape Regions



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Sections 1, 2, & 3: Introduction, Planning Process, and Background Resources

Sections 1-3 of the Northeast Landscape Forest Resources Plan introduce the concept of landscape planning, review the formation of the Northeast Landscape Planning Committee, and highlight the kind of background information that the committee gathered relating to the history and current status of the Northeast Landscape.

Defining the Northeast Landscape

Located in the Arrowhead Region of Minnesota, the Northeast Landscape covers about 7.3 million acres in four Minnesota counties; Carlton, Cook, Lake, and St. Louis.

The Northeast Landscape is located entirely within the Laurentian Mixed Forest Province. There are five ECS Sections that cover the region and a total of ten ECS Subsections within those Sections.

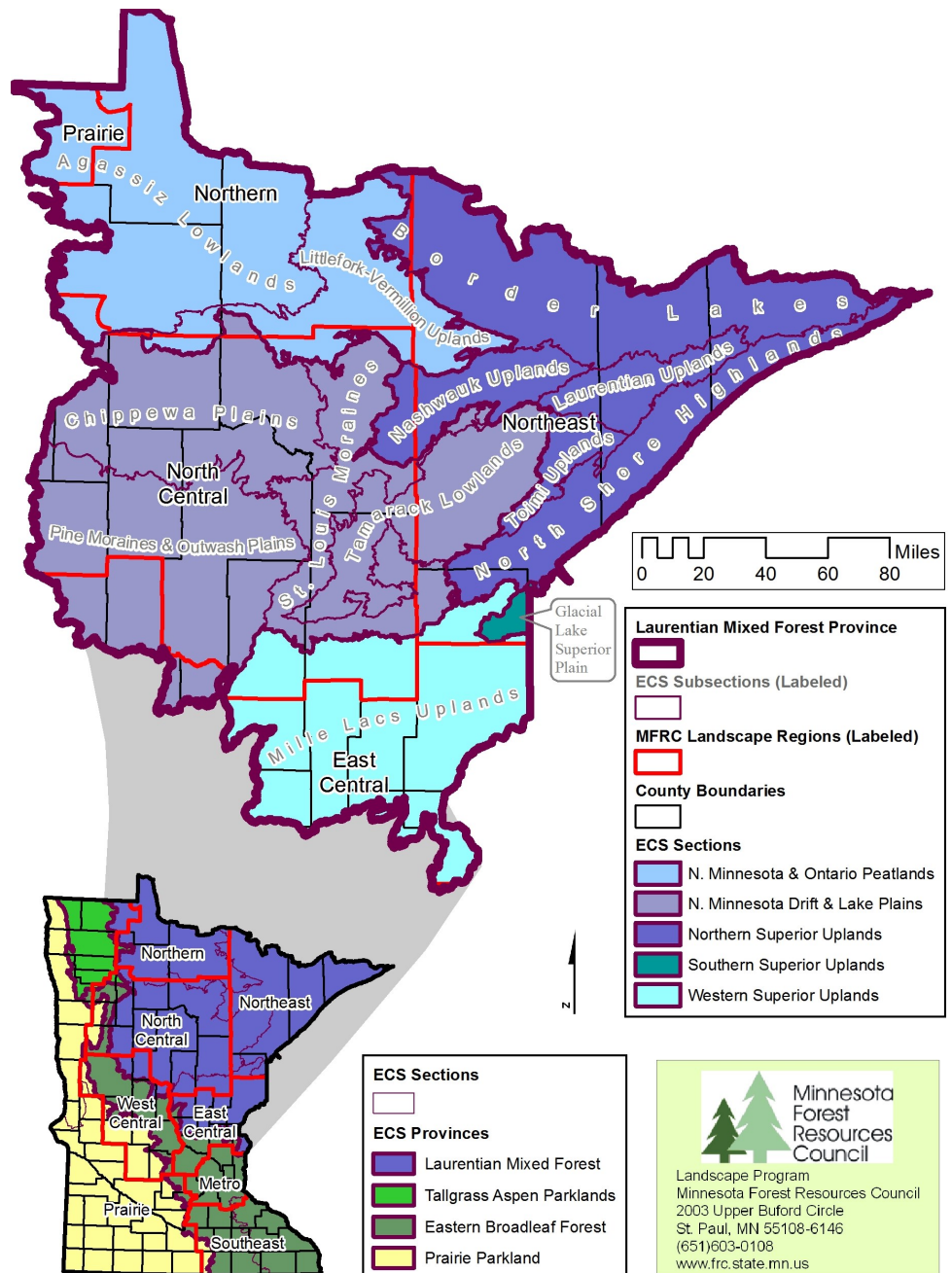
Of the region's 7.3 million acres 7% is water and 85% of the land area is forested (5.8 million acres).



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Background Documents

The first step in the development of the regional landscape plan was to compile a series of assessments and support documents to provide the Planning Committee with a scientific baseline on existing and potential ecological, social, and economic conditions in the region. These assessments give as accurate a picture of the region as possible given the limitations of available information and were continually updated throughout the planning process as the Planning Committee identified new issues and requested more specific information. These reports are all available at: <http://mn.gov/frc/>

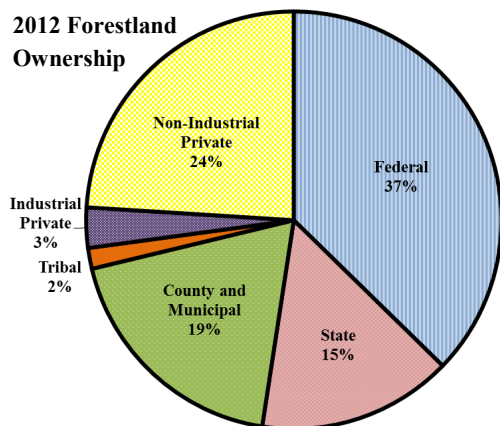


Sections 4: Regional Conditions and Trends Summary

Section 4 presents a summary of regional ecological, economic, and social **conditions and trends** related to seven forest resources topic areas. These seven resource areas are listed below along with a brief summary of these findings. The Committee used this information to guide the development of DFCs, goals, objectives, and recommendations in Part 2 and Part 3 of the plan.

Forest Land Base

- The region is nearly **85%** forested.
- About 200,000 acres have been **developed or converted to agriculture**.
- The region's forests are owned and managed by a **diversity of public and private stakeholders**.



Source: Forest Inventory and Analysis (FIA), 2012.

Vegetation and Terrestrial Wildlife

- The **large contiguous forests** of the region contain a **diversity of ecological communities** and provide habitat for **many of the state's native wildlife species**.
- 80 of the region's 1,273 documented vascular are not found in any other region of Minnesota.
- The **tree species composition, age, and patch size** of the ecological communities in the Northeast Landscape have changed since European settlement.
- Climate projections indicate a **decline in the region's boreal species** and forest ecosystems adapted to a narrow range of conditions or containing few species.

Water Resources and Aquatic Wildlife

- The region contains a range of **high quality water resources** with over 2,600 lakes covering nearly 525,000 acres, more than

150 miles of Lake Superior shoreline, and over 10,000 miles of streams and rivers.

- The region's forestlands are a great storm filter and are a key component in **sustaining high quality water and hydrology**.

Forest Products

- The **forest products industry** supports a large number of good paying jobs and is a significant driver in the region's overall economy.
- Mills with procurement areas within the area report annual consumption of **nearly 2 million cords**.

Recreation

- The region is a nationally recognized all-season **outdoor recreation destination**.
- Tourism and hospitality are a significant portion of the region's economic base.

Minerals

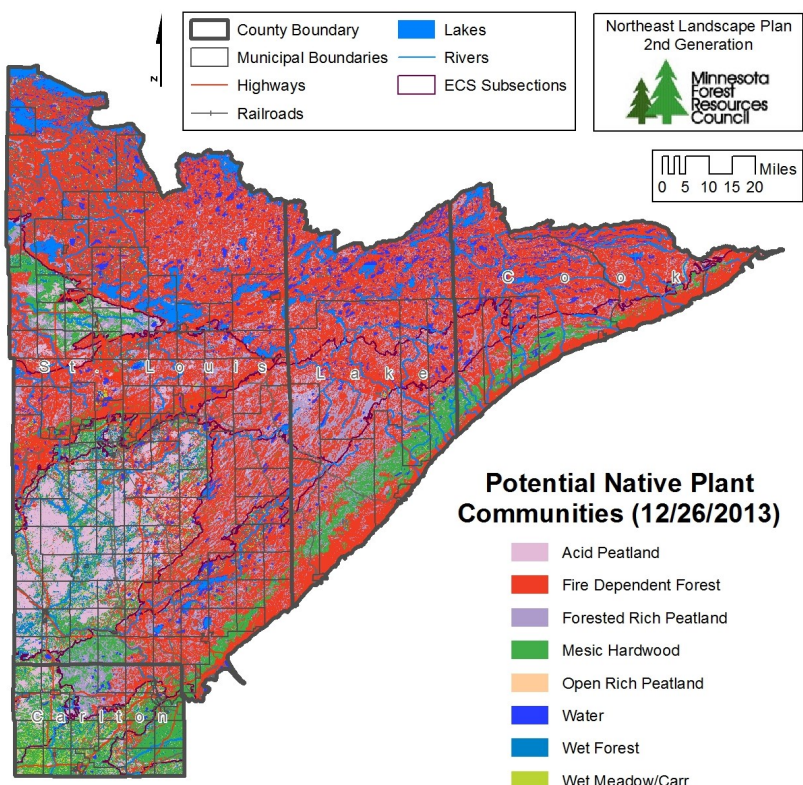
- The region contains one of the **world's largest deposits of iron ore** and several other key minerals such as copper and nickel.

Social and Cultural Uses and Values

- Forests and forest-dependent fish and wildlife, continue to have a **strong cultural significance to the Chippewa Bands** who maintain off-reservation rights in the region.
- The area has a significant **fire history** and increased rural development coupled with climate change could lead to more **frequent and intense fires** and an escalation of control costs.
- This is a relatively **rural region** with a population that is projected to **increase slowly** through the next three decades; however, **mining expansion** could greatly affect the population and rural land demand.
- Population densities **vary seasonally** due to the high percentage of seasonal and recreational homeowners.

Population Estimates			
Age	2010	2040	Change
0-24	79,488	77,156	-2.9%
25-64	131,554	125,565	-4.6%
65+	40,612	64,994	60.0%
Total	251,654	267,715	6.4%

Source: Minnesota State Demographic Center



Section 6: Desired Future Conditions, Goals, and Objectives

Section 6 describes the Planning Committee's vision for the region by providing an outline of the approaches the Coordination Committee and partners can take to promote the management of healthy forests in the region.

The Planning Committee addressed SFRA's legislative directive to give **equal consideration to the long-term economic, ecological, and social needs and limits of the state's forest resources** by organizing the strategic policy framework into seven Resource Topics and integrating relevant ecological, economic, and social components into each of these Resource Topics.

In Section 6, the Planning Committee identified Assets which benefit or support each resource, and Issues which describe problems or unresolved conflicts. **Desired Future Conditions, Goals, and Objectives were then identified to sustain the assets and address the issues identified.**

In some cases, Desired Future Conditions, Goals, and Objectives are very specific to the resource. However, there are also important opportunities to benefit multiple resources by considering multiple Resource Topics together. Managers should consider and weigh the desired future conditions, goals, and objectives identified in all of the Resource Topics when creating plans and projects.

There is a broad array of perspectives, responsibilities, and interests regarding the management of forest resources. **It is recognized that not every plan, project, or acre can contribute to every goal or objective. At the same time, collaboration to achieve common goals will benefit the forest resources of the Northeast Landscape.**

Forest Land Base

Goal 1. Encourage the Retention of Forestland. Encourage the retention of forestland in community and natural resources planning and decision making processes.

Vegetation and Terrestrial Wildlife

Goal 1. Promote Sustainable Forest Management. Maintain forests that support a full range of ecological functions. Use economic and social goals and objectives as a way to help achieve ecological goals.

Goal 2. Maintain, Restore, and Enhance Native Biodiversity, Including Wildlife Habitat and Populations. Promote forest management practices that ensure the protection, restoration, and enhancement of terrestrial habitats in the region. Forest management should provide a variety of young and old age classes and structures to meet the ecological conditions needed to enhance or sustain viable populations of all existing native and desired non-native species.

Water Resources and Aquatic Wildlife

Goal 1. Maintain and Enhance Water Resources. Forest management policies, programs, projects and practices will help maintain or enhance water resources and watershed health in the region.

Forest Products

Goal 1: Enhance Forest Health and Productivity. Enhance forest health and productivity to ensure a sustainable supply and availability of forest resources suitable for the region.

Goal 2: Retain, Expand, and Diversify the Regional and Local Forest-based Economies. Encourage the retention, expansion, and diversification of regional and local forest-based economies by fostering increased collaboration and cooperation.

Recreation

Goal 1. Promote High Quality Forest-based Experiences for People Recreating in the Region. Promote high quality forest-based experiences by focusing on supporting and protecting significant regional assets including cultural values, recreation opportunities, historical land-

scape features, natural resources, and aesthetic qualities of the forest that contribute to northeastern Minnesota's social and economic vitality.

Goal 2: Enhanced Visitor Experience and Increased Visitor Knowledge of Outdoor Recreation Opportunities. Public and private recreation providers work together to enhance visitor experience and increase visitor knowledge of the wide range of available opportunities.

Minerals

Goal 1. Forest Resources Issues are Considered in Minerals Exploration, Mining Development, and Associated Land Use Planning. The potential positive and negative impacts of minerals exploration and mining development on the region's forest resources are considered during the permitting and planning process.

Social and Cultural Uses and Values

Goal 1. Promote High Quality Forest-based Experiences for People Living, Working, and Visiting the Region. Promote high quality forest-based experiences by focusing on supporting and protecting significant regional assets including cultural values, recreation opportunities, historical landscape features, natural resources, and aesthetic qualities of the forest that contribute to northeastern Minnesota's social and economic vitality.

Goal 2. Encourage Sustainable Land Use. Encourage the integration of sustainable forest resources management concepts including wildfire management into community planning and decision making processes.

Goal 3. Strengthen Public Awareness. Increase awareness about the importance and benefits of sustainably managed natural resources in the region.

Section 7: Vegetation Management Framework

Section 7 provides a more detailed series of goals and strategies for land managers implementing this plan. These goals and strategies are based on the MN DNR's **NPC Classification Framework** at the system and class-levels. NPC Systems were used when they provided an adequate level of specificity to guide landscape-level management whereas the NPC Classes were used to provide more specificity in some of the larger ecological communities (those estimated to be > 100,000 acres).

This NPC based vegetation management vision updates and replaces the range of natural variation (RNV) framework established in the 2003 Northeast Landscape Plan. The science of forest resources management has evolved since the late 1990s and the Planning Committee sought to **utilize this new information while maintaining the course established in the original plan.** The Planning Committee used several sources of information including, but not limited to: NPC descriptions and disturbance regime history, climate change projections, Public Land Survey interpretations, Forest Inventory and Analysis data, and MN DNR Tree Suitability Tables, in addition to social and economic considerations to determine if the 100 year goals and strategies from the 2003 Plan should be maintained, amended, or eliminated.

Land managers and owners are encouraged to adopt and implement these more specific goals and strategies **while acknowledging the voluntary nature of this, and all components, of the Northeast Landscape Plan.**

Fire-Dependent Forest/Woodland System

FDn32: Northern Poor Dry-Mesic Mixed Woodland

- Increase jack pine component throughout all growth stages.
- Manage forests to ensure defensive spaces around communities and infrastructure.

FDn33: Northern Dry-Mesic Mixed Woodland

- Increase the red and white pine components in all growth stages.
- Increase the paper birch and red pine components in the young growth stage (0-35 yrs).
- Increase characteristics found in the mature (55-125 yrs) and old (125+ yrs) growth stages of the community.
- Manage forests to ensure defensive spaces around communities and infrastructure.
- Increased private land stewardship plans and cross-boundary implementation.

FDn43: Northern Mesic Mixed Forest

FDn43a: White-Red Pine Forest

- Increase the white and red pine component.
- Increase the mature and old growth stage of red and white pine.

FDn43b: Aspen-Birch Forest

- Increase the white pine and white spruce component.
- On suitable sites where viable markets exist, manage forests for short-lived species such as aspen and paper birch to provide perpetuation of the aspen/birch community.
- Manage forests to ensure defensive spaces around communities and infrastructure.
- Increased private land stewardship plans and cross-boundary implementation.



Mesic Hardwood Forest System

MHn35: Northern Mesic Hardwoods and MHn45: Northern Mesic Hardwoods (Cedar)

- Increase and/or maintain the white pine, yellow birch, paper birch, white spruce, and white cedar components.
- Expand or favor mesic hardwood forest types.
- Improve maple timber health and quality.
- Maintain critical habitats such as upland cedar.
- Increased private land stewardship plans and cross-boundary implementation.

MHn44: Northern Wet-Mesic Boreal Hardwood-Conifer Forest

- Increase the white spruce component in the mature and old growth stages.
- Maintain a healthy and productive aspen component in the young growth stage.

Acid Peatland System

- Maintain this community on the landscape.



Forested Rich Peatland System

- Maintain forest cover in this plant community.
- Reduce tamarack mortality.

Wet Forest System

- Increase tamarack and white spruce component.
- Manage black and green ash within the context of the spread of emerald ash borer.
- Protect critical forest habitats, especially white cedar cover types and riparian forests along cold water streams.
- Maintain forest land cover in order to protect and maintain water table levels.

Sections 8 & 9: Coordination, Implementation, and Monitoring

Section 8 outlines the organizational structures and **coordination strategies** that the Planning Committee believes are necessary to support the successful implementation of this Plan.

How the plan will be implemented

This is a **voluntary plan** and its success will be based on the **cooperation, coordination, and collaboration** of regional partners and the commitment and imagination they bring to the overall landscape management process. In general terms, the MFRC Landscape Plans are implemented through four basic approaches including:

- Encourage consideration of the landscape-level context by all agencies, organizations, industry, and private landowners when developing their resource management plans and implementation projects.
- Coordinate and support projects by partnering organizations that promote sustainable forest management practices in the Landscape.
- Develop and implement regional committee led projects that proactively address the goals and strategies outlined in the Landscape Plans.
- Monitor activities and outcomes of projects implemented by the regional committees, as well as those by partnering organizations and landowners across the landscape.



Coordination Strategies

1. Reconvene the Coordination Committee
2. Review Coordination Committee Membership and Operations
3. Promote Implementation of the Landscape Plan through Partners' Plans
4. Actively Support the Forest Policy Development Process
5. Develop Regional Priorities to Guide Implementation in the Region
6. Promote Cross Boundary Projects and Geographic Area Collaboration
7. Expand and Sustain Outreach

Section 11 serves as an initial outline for **monitoring and evaluating** the implementation of this Plan over the next ten to twenty years. The Coordination Committee will be responsible for developing and implementing a monitoring and evaluation program. This committee will periodically review progress made towards the implementation of this plan based on information provided by partners in the region and report their findings to the Minnesota Forest Resources Council.

Monitoring Program

The Planning Committee has proposed a two-part monitoring program which includes monitoring completed actions intended to attain plan goals and objectives and to the extent possible, measure the overall trends or outcomes of those actions on the landscape.

The Planning Committee recommends the following questions



be addressed to evaluate the implementation and effectiveness of this Plan:

1. **Implementation Monitoring:**
Are management actions being carried out in a manner that is consistent with the plan?
2. **Resource Trend Monitoring:**
Are management actions moving the Northeast Landscape towards the goals outlined in the plan?

It is important to emphasize that implementation of this, and all MFRC Landscape Plans, is voluntary and that the proposed monitoring program should be viewed as a means to improve and enhance coordination in the management of forest resources on the landscape to sub-landscape levels. This process is not intended to subject partners to any type of enforcement or regulatory action.

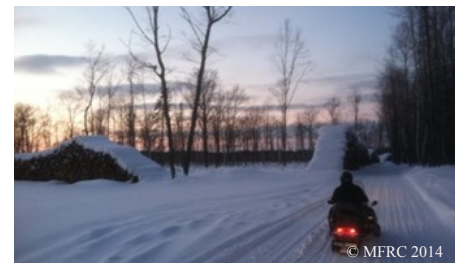
Sections 10: Recommendations to Agencies and Organizations

The purpose of **Section 10** is to summarize **specific recommendations** from the Planning Committee to agencies and organizations working in the region or the state on sustainable forest management. The intent is to assist people from these entities in finding specific strategies that apply to their organization or personnel interests.



“I enthusiastically look forward to the Plan’s use by partners in the landscape.”

Duane Lula
Committee member



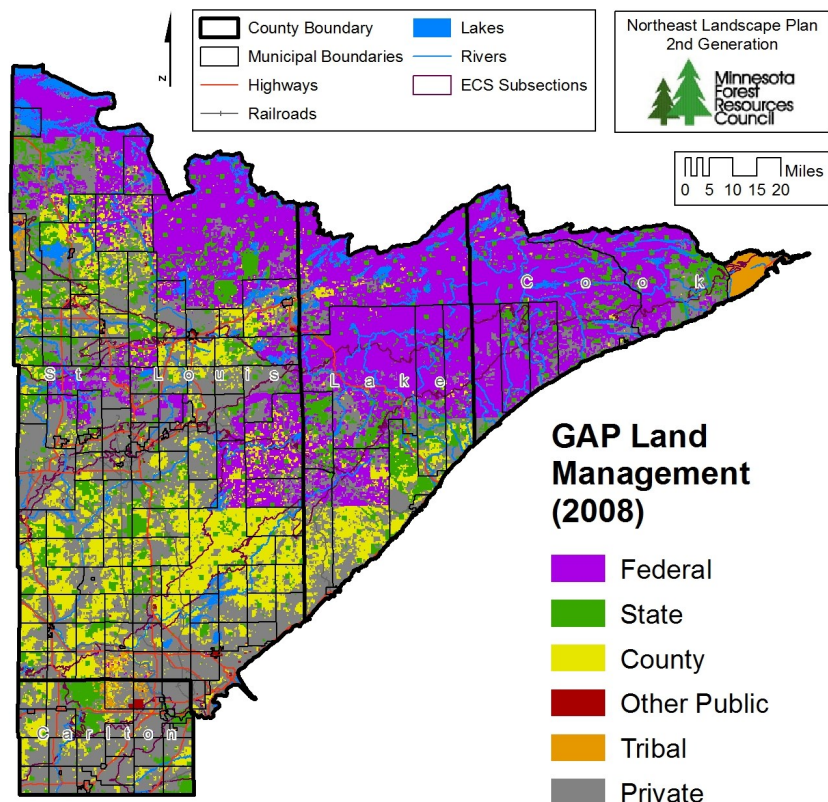
Overall Committee Recommendation

The Committee’s overarching recommendation was to encourage all organizations and agencies, all landowners and citizens, to use this Plan and the corresponding maps and data in as many ways as possible. As a regional level plan, it is intended to provide a broad context on how forest resources can be managed sustainably.

The plan contains more specific recommendations for the following groups:

- Resource Agencies
- Conservation and Non-governmental Organizations
- Education Groups
- Local Officials
- Forest Products Industry
- Minnesota Forest Resources Council

The Planning Committee also included a list of potential opportunities for Private Landowners and Citizens



Federal includes: Army Corps of Engineers, Bureau of Indian Affairs, Bureau of Land Management, U.S. Forest Service, U.S. Park Service. State includes: Department of Military Affairs, Department of Transportation, Division of Ecological Services, Division of Fish and Wildlife, Division of Forestry, Division of Lands and Minerals, Division of Parks and Recreation, Division of Trails and Waterways, Division of Waters. County includes: Carlton County, Cook County, Lake County, St Louis County. Other Public includes: Municipal, University. Private includes: Private, The Nature Conservancy. Tribal includes: Bois Forte Band, Fond Du Lac Tribe, Grand Portage Reservation, Grand Portage Tribe, Minnesota Chippewa Indians, Nett Lake Tribe.



Getting Involved, and Where to Go for More Information

I'm interested! How can I get involved?

Whether you're an interested citizen, a city or township official, a member of a property-owner association or other nonprofit organization, there are many ways to get involved. Remember, **you don't have to be a forester to do something about sustaining and managing our state's forests.**

Here are three initial steps for getting involved and learning more about the Northeast Landscape:

- Visit <http://mn.gov/frc/> to learn more about the Sustainable Forest Resources Act (SFRA) and the Northeast Landscape.
- Review a copy of the **Northeast Landscape Forest Resources Plan** to learn more about the value of landscape planning, as well as the specifics of the Northeast Plan. Copies are available from the MFRC website.
- **Incorporate appropriate landscape planning goals, objectives, and action items** at your site. The Northeast Landscape Plan presents a series of voluntary goals and objectives for regional land managers to implement to sustainably manage forests in the region.

Many more opportunities for active involvement are available on the MFRC website and in the Northeast Landscape Plan.

For more information, visit the following Web sites:

- MFRC: <http://mn.gov/frc/>
- DNR: www.dnr.state.mn.us
- MFRP: www.mnforestpartnership.com

Northeast Landscape Planning Committee

The following 32 individuals participated in five or more Northeast Landscape Planning Meetings:

John Bathke, Private Landowner
Greg Bernu, Carlton County
Bruce Carlson, DNR Eco. and Water Res.
Dave Chura, MN Logger Education Program
Paul Dubuque, DNR Forestry
Chris Dunham, The Nature Conservancy
Gary Erickson, Sappi
Jim Hall, Cook County SWCD
George Host, Natural Resources Research Institute
Michael Jimenez, US Forest Service – Superior NF
Duane Lula, Citizen
Jim Manolis, DNR Operations Services
Brad Matlack, Carlton County SWCD
Mary McDermid, Private Landowner
Bill Nixon, Lake County
Lois Norgaard, Sierra Club
Tim O'Hara, Minnesota Forest Industries
Paul Ojanen, North St. Louis County SWCD
Steve Olson, Fond du Lac Band
Steve Persons, DNR Fisheries
Tim Quincer, DNR Wildlife
Lisa Radosevich-Craig, US Forest Service – Superior NF
Matt Radzak, Minnesota Power
Mark Reed, St. Louis County
Mike Reichenbach, U of M Extension
Paul Sandstrom, Laurentian RC&D
Peter Taylor, US Forest Service – Superior NF
Doug Thompson, The Nature Conservancy
Molly Thompson, Sugarloaf: The North Shore Stewardship Association
Eric Todd, Boise
Mark Westphal, Carlton County
Mike Young, DNR Forestry

In addition to those on this list, there were many other individuals and organizations who supported the effort in various ways.

Mailer Section