Minnesota Forest Resources Council

2006 Annual Report to the Governor and Legislature

on the Implementation of the Sustainable Forest Resources Act

Thank You

Thank you to all the organizations that continue to help, organize, support, and participate in the programs of the Sustainable Forest Resources Act (SFRA) and the Minnesota Forest Resources Council (MFRC):

Associated Contract Loggers
Audubon Minnesota
Blandin Foundation
Cloquet Forestry Center
Institute for Agriculture and Trade Policy –
  Community Forestry Resource Center
Minnesota Association of County Land Commissioners
Minnesota Center for Environmental Advocacy
Minnesota Deer Hunters Association
Minnesota Department of Natural Resources
Minnesota Forest Industries
Minnesota Forest Resources Partnership
Minnesota Forestry Association
Minnesota Indian Affairs Council
Minnesota Logger Education Program
Minnesota Resort and Campground Association
Minnesota Ruffed Grouse Society
Minnesota Timber Producers Association
The Nature Conservancy
The Trust for Public Land
USDA Forest Service
  Chippewa National Forest
  Superior National Forest
  Northern Research Station
  State and Private Forestry
University of Minnesota-Duluth
  Natural Resources Research Institute
University of Minnesota-College of Food, Agricultural, and Natural Resource Sciences
    Sustainable Forests Education Cooperative
University of Minnesota-Extension Service

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Cover photo by Mike Phillips, MFRC

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From the Chair

An Overview of MFRC Accomplishments in 2006

The Minnesota Forest Resources Council (MFRC) had a successful year in 2006. Our work in the first year of the Council's second decade included several notable accomplishments.

1. The Governor chose not to petition the U.S. Secretary of Agriculture to undertake a state-specific rule-making process for management allocations of inventoried roadless areas in Minnesota national forests, acting on advice provided by the MFRC in December 2005. MFRC members strongly believe that this request for advice from the Governor is a prime example of how the MFRC can best serve Minnesota and its citizens.

2. The MFRC worked with partner organizations to obtain legislative support for $7.5 million in state funding to purchase large-scale forestland conservation easements. These funds are being used to leverage private and federal funds to purchase conservation easements on more than 60,000 acres of forestland, which will help mitigate the effects of a substantial loss of industrial forestland.

The MFRC commissioned a pilot study to quantify the parcelization[1] and development of forestland and identify conditions that lead to these types of activities. In 2007, the MFRC is seeking legislative support to extend this pilot study across Minnesota's forestland, assess policy tools available to promote forestland conservation, and make recommendations to the Governor and Legislature.

Alfred D. Sullivan, Chair
Minnesota Forest Resources Council
Photo by Patrick O'Leary/ University of Minnesota

3. MFRC members and staff provided leadership in the reconvened Governor's Task Force on the Competitiveness of Minnesota's Primary Forest Products Industry. The goal of this task force is to facilitate the identification of issues facing the primary forest products industry and to develop recommendations to the Governor.

With the Governor continuing the task force into 2007, several MFRC members and staff will be actively engaged in implementing near-term task force recommendations and working with the task force to develop long-term recommendations.

4. We are finalizing development of draft guidelines for the sustainable harvest of woody biomass[2] from forestland and brushland, which represent the first guidelines of this type in the United States. The Minnesota Legislature mandated[3] that the MFRC develop guidelines for sustainable removal of woody biomass from logging residue on timber harvest sites. The Minnesota Department of Natural Resources (DNR), which had a parallel mandate to develop guidelines for sustainable removal of woody biomass from brushland and open land, asked the MFRC to lead that guideline development as well, and we have done so.

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[1]Parcelization refers to the subdivision of large ownerships into smaller parcels.

[2]Biomass is defined in Minnesota Statutes 216C.051 as "herbaceous crops, trees, agricultural waste, and aquatic plant matter, excluding municipal solid waste, used to generate electricity."

[3]Minnesota Statutes 216B.2424

5. We continued to serve as an active partner with the Blandin Foundation in its Vital Forests/Vital Communities Initiative. Since 2003, the Blandin Foundation has invested more than $8 million in grants and programs—and leveraged more than $10 million in investments by other entities—to maintain the forestland base, promote sustainable forest management, and promote forest-based economic development. Several MFRC members and staff serve on the advisory board of this initiative.

6. Regional landscape planning and coordination committees in all six of the state's major forested landscapes met to promote implementation of landscape plans and coordination of forest management activities. The committees, made up of forestry professionals, private landowners, industry, and public land managers, met quarterly to develop and implement committee projects, coordinate and support projects by partnering organizations, and monitor plan implementation.

7. The Riparian Science Technical Committee, convened by the MFRC, completed its work to synthesize and report on the most recent advances in scientific understanding of forest management impacts on riparian areas. In 2007, the MFRC will consider the scientists' findings and judgments related to various types of waterbodies. The MFRC will also complete an economic analysis that will help inform discussions about revising riparian aspects of the guidelines.

Global competitiveness of Minnesota's forest products industry has been the subject of a task force reconvened by the Governor in 2006. MFRC members and staff provided leadership on this task force. *Photo by Kurt Rusterholz*

8. The DNR completed the sixth year of monitoring the application of MFRC timber harvesting and forest management guidelines on public and private forestland. The DNR is in the process of analyzing baseline monitoring results[4] from 2000-2002 and statistically comparing them to the post-baseline results from 2004-2006. This analysis will provide the MFRC with important information for guideline revision, as well as for future training and technical assistance efforts.

Council members look forward to the challenges and opportunities we face in the coming years, and we look forward to our continuing role of advising the Governor, Minnesota Legislature, and public agencies on how to ensure forest sustainability in Minnesota.

Alfred D. Sullivan
Chair

Council members look forward to the challenges and opportunities we face in the coming years, and we look forward to our continuing role of advising the Governor, Minnesota Legislature, and public agencies on how to ensure forest sustainability in Minnesota.

[4]Baseline sites were those that were harvested or contracted for harvest prior to publication of the MFRC guidelines in 1999.

The Minnesota Forest Resources Council

What is the Minnesota Forest Resources Council?

The Minnesota Forest Resources Council (MFRC) is a 17-member organization working to promote long-term sustainable management of Minnesota's forests in two ways:

• By coordinating implementation of the Sustainable Forest Resources Act (SFRA).[5]

• By advising the Governor and federal, state, county, and local governments on sustainable forest resource policies and practices.

What is its purpose?

Created in 1995, the MFRC operates within the policy framework for sustainable forestry set forth in the SFRA, which is to:

• **Pursue the sustainable management, use, and protection** of the state's forest resources to achieve the state's economic, environmental, and social goals.

• **Encourage cooperation and collaboration** between public and private sectors in the management of the state's forest resources.

[5]Minnesota Statutes 89A

Inherent in sustainable forest management is the need to protect adjacent water resources. The MFRC convened the Riparian Science Technical Committee to synthesize and report on the most recent advances in scientific understanding of forest management impacts on riparian areas. *Photo by Mike Phillips, MFRC*

• **Recognize and consider forest resource issues,** concerns, and impacts at the site and landscape levels.

• **Recognize the broad array of perspectives** regarding the management, use, and protection of the state's forest resources, and establish processes and mechanisms that seek these perspectives and incorporate them into planning and management.

Who is on the MFRC?

The Governor appoints a chair and 15 other members to the MFRC. Recognizing the sovereignty of Indian nations under federal law, the Minnesota Indian Affairs Council appoints one additional member. MFRC membership includes a chair plus individuals representing the following categories:

- Commercial logging contractors
- Conservation organizations
- County land departments
- Environmental organizations *(two representatives)*
- Forest products industry
- Game species management organizations
- Labor organizations
- Minnesota Department of Natural Resources
- Minnesota Indian Affairs Council
- Nonindustrial private forest landowners *(two representatives)*
- Research and higher education
- Resort and tourism industry
- Secondary wood products manufacturers
- USDA Forest Service

MFRC Forest Policy Initiatives and Collaboration

What were the 2006 policy priorities for the MFRC?

In early 2006, the MFRC identified five issues that received primary focus in 2006 and will continue to receive primary focus in 2007. These issues are being addressed by gathering information, supporting research, and monitoring the issues. They also provide the main focus of the MFRC's policy initiatives. The MFRC will continue to monitor other important forest resource issues as well.

Policy Priority #1

Understand the economic, ecological, and social impacts of forestland ownership changes, parcelization, and development on public and private lands.

The loss of working forests through parcelization and subsequent development has been linked to adverse impacts on timber availability, wildlife, water quality, land cover, hunting, and other recreational activities.

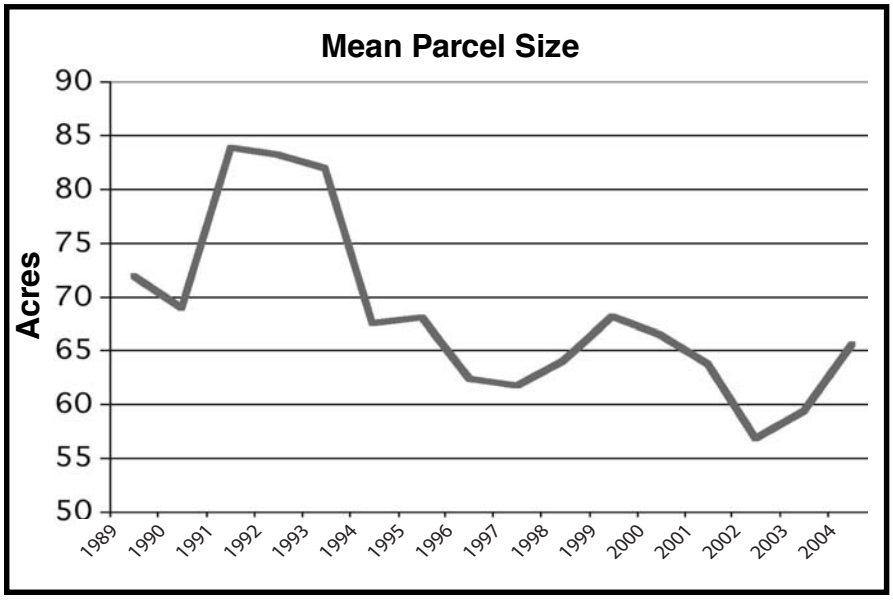


Figure 1. Mean parcel size for undeveloped forest tracts greater than 20 acres in size has declined from 1989 to 2004. *Source: Mike Kilgore, University of Minnesota Department of Forest Resources, September 2005*

The MFRC has a key role to play in helping to develop a better understanding of the issue, as well as in assisting efforts to conserve working forestland.

• In 2006, the MFRC worked with partner organizations to obtain legislative support for $7.5 million in state funding to purchase large-scale forestland conservation easements.

These funds are being used to leverage private and federal funds to purchase conservation easements on more than 60,000 acres of forestland. These easements will help mitigate the effects of the loss of substantial amounts of industrial forestland.

• A pilot study was commissioned to quantify the parcelization and development of forestland, as well as to identify the pertinent drivers or conditions that tend to lead to these types of activities.

Woody biomass is bundled onsite for use in generating energy. *Photo by Mike Phillips, MFRC*

• The MFRC has resolved to seek support in further examining the issue of ownership change, parcelization, and development. The full study will seek to:

– Enhance understanding of the extent of forestland ownership change, parcelization, and development.

– Assess a full range of policy tools available to address forestland conservation (such as easements, land exchange, tax policy, and planning and zoning, among others).

– Develop a set of policy recommendations for policymakers.

With development of the biomass harvesting guidelines well under way, the MFRC will continue to monitor related topics, such as competition for woody biomass for different purposes, as well as the total availability and source of current and future demand.

Policy Priority #2

Understand the economic and ecological impacts of biomass harvesting for energy, and develop voluntary site-level guidelines for biomass harvesting.

With development of the biomass harvesting guidelines well under way, the MFRC will continue to monitor related topics, such as competition for woody biomass for different purposes, as well as the total availability and source of current and future demand.

Policy Priority #3

Promote deeper understanding of the relationship between water quality retention and improvements due to forest cover.

The MFRC is addressing this issue from a number of standpoints, including:

• Support for a study of the impact of varying land uses on water quality in five counties within the MFRC's North Central Landscape.

• Completion of the Riparian Science Technical Committee's work to take advantage of recent advances in scientific understanding of riparian areas related to forest management. The results of this work will help to better address the conditions and management questions in riparian areas.

• Collaboration in directing Clean Water Legacy funding to forward reforestation efforts and the maintenance of working forestlands.

Policy Priority #4

Raise awareness of forest health, with special attention to invasive terrestrial plants, and position it as a landscape issue.

The MFRC has furthered this policy issue by monitoring various agency responses and convening public and private entities to discuss the problem, detection, management, and policy considerations regarding invasive plants and insects. The MFRC has:

• Convened a panel of experts to discuss federal and state agency perspectives regarding emerald ash borer, a potential major threat to Minnesota's ash resources, and other invasive species.

• Monitored efforts and strategies by various agencies and organizations to detect invasive terrestrial plants in forests.

Damage to this Canadian firewood is the result of an infestation of emerald ash borer. *Photo by Troy Kimoto, Canadian Food Inspection Agency, www.insectimages.org*

The MFRC convened a panel of experts to discuss federal and state agency perspectives regarding emerald ash borer, a potential major threat to Minnesota's ash resources, and other invasive species.

Policy Priority #5

Globalization has a broad, direct influence on Minnesota's forests in multiple ways: global trade's effect on spreading insects, diseases, and invasive plants; the impact of the global energy market on increasing demand for renewable energy from woody biomass; and the impact of globalization of the forest products industry on forest land ownership.

As a true overarching issue, the MFRC has addressed the global context in which we operate regarding Minnesota's forest resources in a number of arenas:

• Early in 2006, the MFRC continued to assist with implementation of the recommendations of the 2003 Governor's Advisory Task Force Report on the Competitiveness of Minnesota's Primary Forest Products Industry.

• MFRC members and staff provided leadership in the reconvened Governor's Task Force, facilitating both the identification of issues facing the primary forest products industry and the development of recommendations to the Governor.

• The MFRC sought to enhance its understanding of the global context of the aforementioned issues, including ownership change, invasive species, and the economics of the primary forest products industry.

How did the MFRC advise the Governor, Legislature, executive agencies, and other governmental units?

The MFRC passed a number of resolutions in 2006 advising the Governor, Legislature, executive agencies, and other governmental units on a number of key issues regarding forest resources. In addition, the Governor acted on advice provided by the MFRC in 2005 regarding inventoried roadless areas in national forests.

• The Governor chose not to petition the U.S. Secretary of Agriculture to undertake a state-specific rule-making process for management allocations of inventoried roadless areas in Minnesota national forests, acting on advice provided by the MFRC in December 2005.

MFRC members strongly believe that this request for advice from the Governor is a prime example of how the MFRC can best serve Minnesota and its citizens.

• The MFRC recommended that the Minnesota DNR defer guideline implementation monitoring of timber harvesting sales on public and private lands from 2007 to 2008, and to apply the cost savings to monitoring activities in 2008.

• The MFRC passed a resolution endorsing support for a legislative mandate to assess forest policy options regarding forestland conservation. This mandate would include the following:

– An assessment of trends in forest parcelization and development in forested regions

– An evaluation of policy options to address these trends

– Recommendations to the Legislature on the most cost-effective approaches to addressing these trends

• The MFRC endorsed the Blandin Foundation goal of increasing the number of acres of family forestland under forest stewardship plans by one million additional acres by the year 2015.

• The MFRC formally endorsed the Minnesota Forest Resources Partnership's upcoming conference being held March 27-28, 2007. The conference, titled *Improving Timber Productivity in Minnesota: A Working Meeting,* is designed to identify, develop, and implement measurable strategies to improve timber productivity and forest health in Minnesota.

Since 2003, this initiative has invested more than $8 million in grants and programs—and leveraged more than $10 million in investments by other entities—to maintain the forestland base, promote sustainable forest management, and promote forest-based economic development.

How did the MFRC continue to partner with the Blandin Foundation's Vital Forests/Vital Communities Initiative?

The MFRC continued to partner with the Blandin Foundation in its Vital Forests/Vital Communities Initiative, which strives to strengthen and diversify Minnesota's forest-based economy and promote the long-term ecological health of the forest resource that supports it.

Since 2003, this initiative has invested more than $8 million in grants and programs—and leveraged more than $10 million in investments by other entities—to maintain the forestland base, promote sustainable forest management, and promote forest-based economic development. Several MFRC members and staff serve on the advisory board of this initiative.

Landscape-Level Forest Resource Planning and Coordination

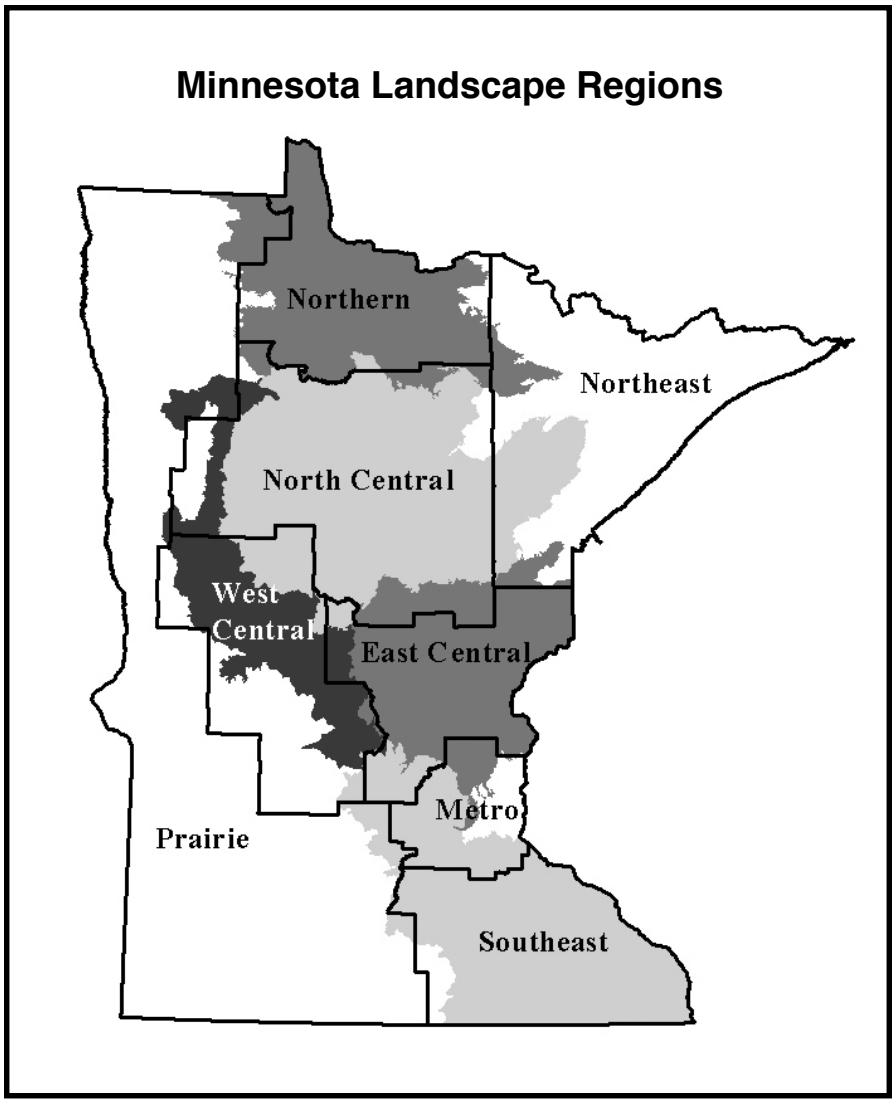


Figure 2. Landscape regions. Solid lines represent administrative boundaries; shaded areas represent ecological boundaries. Although the regional borders generally follow county boundaries to facilitate coordination among units of government, they also correspond closely with the borders of ecological regions.

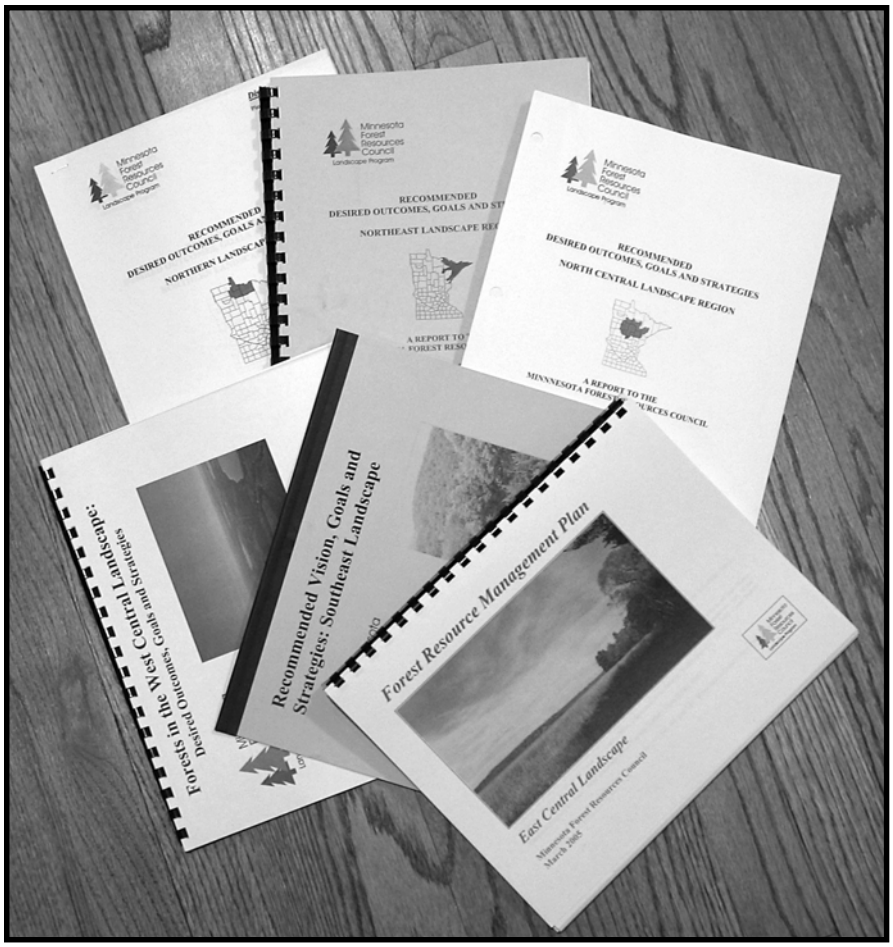
How does the MFRC's landscape program address geographically unique resource issues?

The MFRC landscape program provides a forum that allows landowners and stakeholders to work together over broad regions to address resource issues that generate geographically unique responses to sustainability challenges.

In six major forested regions (see Figure 2: all except the Metro and Prairie regions), residents and stakeholder representatives have worked cooperatively to:

- **Develop sustainable forest resource plans** stating desired future forest conditions, supported by goals and strategies to achieve them in the long term.

- **Establish coordination groups of landowners and managers** in each landscape region to implement and coordinate landscape goals in each plan.



Six landscape plans have been developed to assist landowners, forestry professionals, industry, and local officials in the sustainable management of each landscape region's forest resources. *Photo by Lindberg Ekola, MFRC*

What is the status of the forest resource plans? What is in these plans?

Each of the committees representing the six forested landscape regions has prepared a forest resource plan or "landscape plan." Each plan begins with statements that describe desired future conditions for the region's forests over a long-term horizon (up to 100 years).

The plans also include shorter-term goals and strategies to guide efforts by landowners, forestry professionals, industry, and local officials in the sustainable management of the region's forest resources.

How is implementation of regional landscape plans occurring?

When the planning process in all six of the major forested landscapes was completed in 2005, the MFRC's landscape program shifted its emphasis to plan implementation and coordination. Regional committees, made up of the forest products industry, forestry professionals, private landowners, and public land managers, meet on a quarterly basis to guide the implementation and coordination of their respective landscape plans.

The six committees are actively working to:

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

The MFRC works closely with the Minnesota Forest Resources Partnership[6] (MFRP). Together with the MFRP, the MFRC provides staff assistance and support to the three landscape regions located in the northern portion of Minnesota.

[6]The MFRP, formed in 1995, is a voluntary partnership of 26 organizations, including forest landowners, forest resource managers, and loggers. The MFRP's primary objectives are productive, sustainable forest resources and economically viable forest management organizations and forest products industries.

Highlights of plan implementation and coordination work in 2006 for each of the six landscape regions follow:

Northeast Regional Landscape

• **Supported the formation of four coordination work groups** for specific "opportunity areas" within the landscape region to further develop and apply the goals and strategies as outlined in the Northeast Landscape Plan. Efforts to organize other work groups were under way in 2006.

• **Began developing the framework** for monitoring the implementation of the landscape plan. The committee developed a survey tool designed for use by committee members to report activities and accomplishments toward the goals in the plan.

Northern Regional Landscape

• **Contracted with University of Minnesota-Duluth, Natural Resources Research Institute,** to develop an Ecological Classification System classification and assessment study.

• **Initiated efforts with the Minnesota DNR to develop a public access and wildlife habitat information management project.** The project will construct a shared database for resource managers to use in identifying and tracking forest management projects that can improve wildlife habitat and increase public recreation opportunities.

Regional landscape committees meet to guide the implementation and coordination of their respective landscape plans. *Photo by Lindberg Ekola, MFRC*

North Central Regional Landscape

• **Convened an outreach workshop** to unveil the North Central Landscape Plan. Attendees included 68 landowners and resource managers.

• **Began the process of identifying and mapping opportunity areas** to help define other implementation projects within the landscape region, and developed a plan implementation framework.

• **Is commissioning a study** with the USDA Forest Service, which will aid in promoting successful pine reestablishment, among other efforts. This effort reflects a deep concern regarding the successful reestablishment of pine and impacts of deer browse in the region.

East Central Regional Landscape

• **Convened an outreach workshop** to unveil the East Central Landscape Plan. A total of 34 landowners and resource managers attended the workshop.

• **Supported development of the Guide to Rural Living,** an informational resource on land and resource management for rural residents, especially those who own small parcels of land.

• **Initiated the Four Corners Pilot Project to maximize connections with local officials.** The project area includes townships in Chisago, Isanti, Kanabec, and Pine counties. Several activities were completed in 2006, including meetings with township and county officials, GIS (geographic information system) mapping, inventory of forest stewardship plans, and a survey of landowner interest in forest management technical assistance.

Southeast Regional Landscape

• **Organized and coordinated efforts for the 2007 Southeast Minnesota Forest Stewardship Workshop** for private landowners, local officials, loggers, forest products industry representatives, foresters, and other resource managers.

• **Hired an intern to help organize the workshop event** and work on other implementation projects.

• **Submitted a proposal to the Forest Legacy Program** to fund the acquisition of conservation easements on 2,875 acres of biologically important forestland across 16 ownerships through the Forest Legacy Program.

West Central Regional Landscape

• **Worked to help develop a pilot project to promote sustainable forest management practices on private lands,** in partnership with the Wadena County Soil and Water Conservation District, local officials, and landowners.

• **Began working with the WesMin Resource Conservation and Development District,** recipient of a $701,000 federal innovation grant, and its partners on the Productive Conservation on Working Lands (PCWL) project. This demonstration project provides incentives to reduce economic, environmental, and social risks to farmers growing alternative conservation crops for energy and emerging industries.

• **Added five new committee members** representing a variety of public and private organizations.

• **Contracted with the DNR Division of Forestry to develop geographic information system (GIS) mapping for the region.**

How will the impact of landscape plans be monitored over time?

Documenting the implementation of the landscape plans will be guided by three general questions:

1. How are selected ecological, social, and economic characteristics of the landscape changing over time?

Initial landscape assessments for each landscape identified information useful in sustainable forestry decision-making. Subsequent monitoring will periodically update that information.

Landscape partners need more information to help coordinate their activities, recognize opportunities for better collaboration and forest management, and create conditions favorable for forest management.

For example, all completed landscape plans set goals for forest species and age composition, using information on current forest composition from the USDA Forest Service's Forest Inventory and Analysis (FIA) as a baseline.

2. How will progress in implementing the strategies be measured?

It is essential to document the activities of partners as they implement MFRC landscape plans. Measurable effects of many of the strategies identified in the plans may take years to accumulate. In the interim, documenting the effort expended to implement the plans will help provide insight into the energy and resources needed to sustain the effort.

3. What information is needed by landscape partners?

Landscape partners need more information to help coordinate their activities, recognize opportunities for better collaboration and forest management, and create conditions favorable for forest management.

They will best be able to direct their management activities and financial resources toward achieving plan goals if they are well informed about partner activities, the needs of small private forest landowners, and the availability of funding and expertise.

This approach will help forest managers take advantage of unanticipated opportunities and apply creative solutions as problems arise.

Guideline Review and Revision

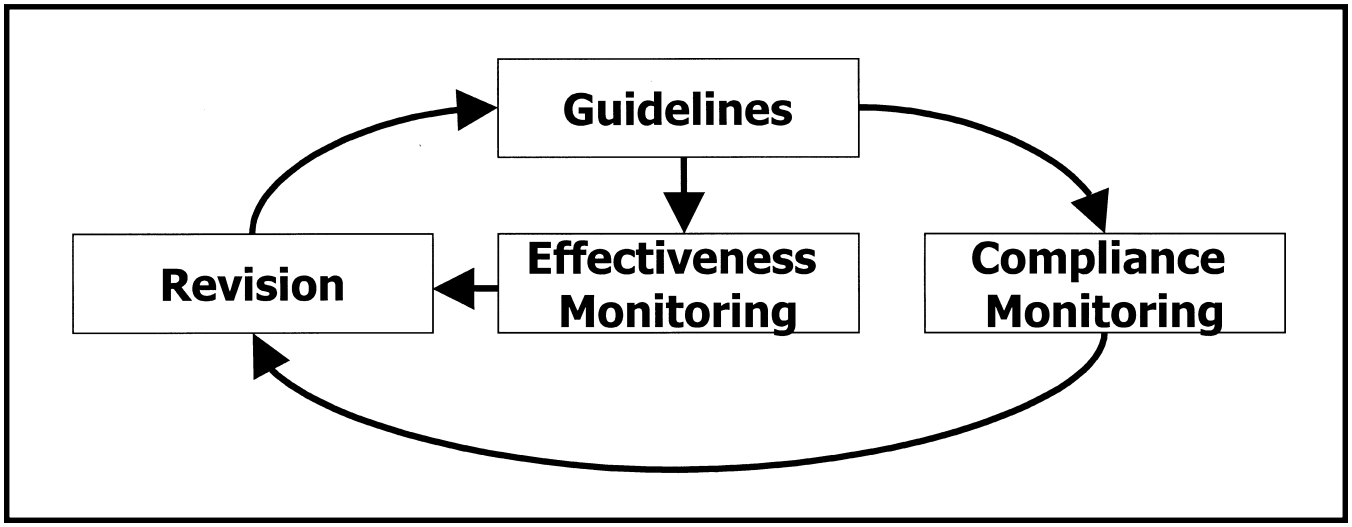
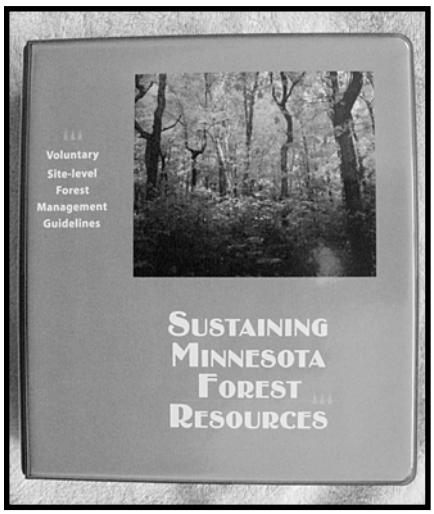


Figure 3. The MFRC's process of monitoring voluntary guidelines, along with feedback obtained from training programs, provides input in making guideline revisions.



The revised forest management guidebook provides guidelines to assist in the sustainable management of forestland. *Photo by Mike Phillips, MFRC*

Have the revised guidelines been distributed?

Yes. In 2005, the MFRC published a revised timber harvesting and forest management guidebook titled *Sustaining Minnesota Forest Resources: Voluntary Site-level Forest Management Guidelines.*

Approximately 2,000 copies have been distributed to loggers, resource managers, landowners, educators, and other interested parties to assist in the sustainable management of forestland.

How are the guidelines utilized in forestland certification?

Sustainable forest management is being promoted in Minnesota through forestland certification. Two of the principal certification programs adopted in Minnesota are the Sustainable Forestry Initiative (SFI) and the Forest Stewardship Council (FSC).

In addition, the MFRC is actively supporting the implementation of a Master Logger Program that is being developed and promoted through the Minnesota Logger

Riparian management zones are evaluated for compliance with guideline recommendations. *Photo by Rick Dahlman, Minnesota DNR Forestry*

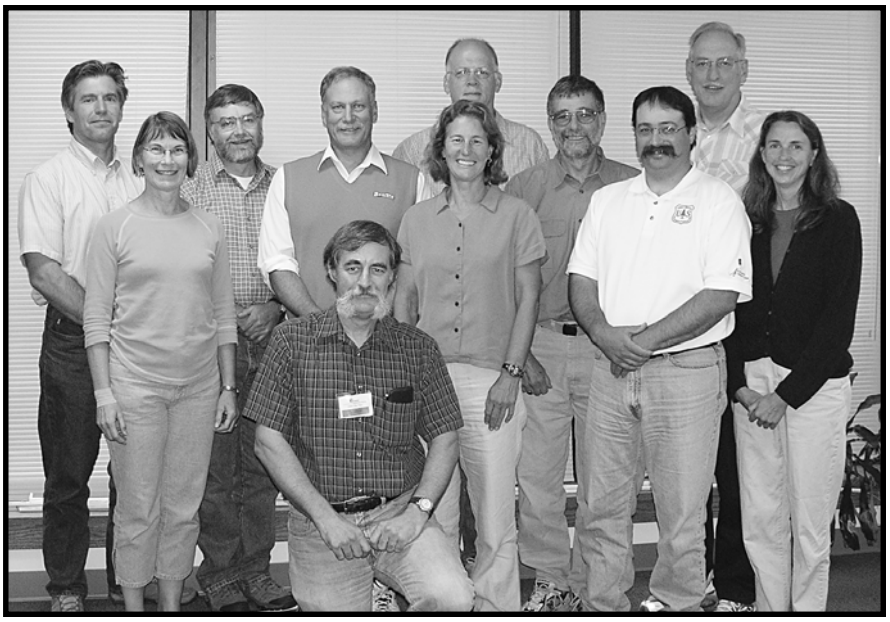
Education Program (MLEP). Use of the MFRC's timber harvesting and forest management guidelines is central to successful compliance with certification requirements for these programs.

All DNR state forestland is certified, as well as forestland in a number of counties and a substantial amount of private forestland. A number of forest landowners are currently in various stages of obtaining certification or working for dual certification from more than one certification program.

What are future planned directions for guideline revisions?

A core component of guideline development is the need to periodically review and revise the recommendations based on new information or mandates. The MFRC, through the site-level program, is moving forward in evaluating the science of riparian forest management and developing guidelines for the sustainable harvest of biomass from forestland and brushland.

(photo below) The MFRC expresses its gratitude to the Riparian Science Technical Committee (RSTC) for its efforts in evaluating the science of riparian forest management. The work of the RSTC is assisting the MFRC in better understanding recent advances in scientific understanding of riparian areas related to forest management in preparation for considering changes to current riparian guidelines to better address the unique conditions and management questions in riparian habitat. RSTC members (left to right) are Brian Palik, Lucinda Johnson, Mark Hanson, George Ice, Mike Phillips (chair, kneeling), JoAnn Hanowski, Dan Gilmore, Dave Grigal, Randy Kolka, Sandy Verry and Diane Desotelle (facilitator). *Photo provided by Mike Phillips, MFRC*



What work is under way to revise riparian guidelines?

The Council charged its Riparian Science Technical Committee (RSTC) to "bring forth the best applicable scientific knowledge in order to assist the MFRC in resolving outstanding riparian guideline questions/topics/issues." The RSTC completed its work in 2006, and MFRC staff are completing a report on committee recommendations. Results will inform MFRC discussions on proposed guideline revisions for incorporation into the second revision of the guidebook.

In addition, the MFRC will convene a panel of economists to evaluate the work of the RSTC. This latter effort is in response to the Sustainable Forest Resources Act of 1995 (SFRA), which states: "Before the implementation of timber harvesting and forest management guidelines, new site-level practices, and landscape-level programs, the council shall analyze the costs and benefits of new site-level practices and landscape-level programs."[7]

[7] Minnesota Statutes 89A.05, Subd. 2

What work is under way to develop guidelines for the sustainable harvest of woody biomass from forestland and brushland?

In 2005, the Minnesota Legislature expanded the definition of "farm-grown closed-loop biomass" to include "sustainably managed woody biomass." The statutory charge states the following:

> "(h) Guidelines or best management practices for sustainably managed woody biomass must be adopted by: (1) the Minnesota Department of Natural Resources for managing and maintaining brushland and open land habitat on public and private lands,…and (2) the Minnesota Forest Resources Council for logging slash, using the most recent available scientific information regarding the removal of woody biomass from forest lands, to sustain the management of forest resources… with particular attention to soil productivity, biological diversity, …and wildlife habitat."[8]

These guidelines must be completed and approved by the MFRC by July 1, 2007, and the process of developing them must incorporate public notification and comment. The DNR and the MFRC agreed to consolidate the guideline development effort into one process, under the direction of the MFRC.

A 12-member interdisciplinary technical committee is developing two sets of guidelines: one for brushland and one for forestland. These guidelines will complement the current MFRC site-level forest management guidelines, but they may be published as separate documents.

(photo above) The MFRC expresses its gratitude to the Biomass Guideline Committee (BGC) for its efforts in developing guidelines for the harvest of woody biomass from forestland and brushland. BGC members (left to right) include Dan McCourtney, Dick Rossman (chair), Erv Berglund, Bill Berguson, Pat Orent, Steve Merchant, Diane Desotelle (facilitator), Dave Grigal, Barb Leuelling, Kurt Rusterholz, Steve Olson, Bill Berg and John Thompson. Not pictured: Tom McCabe *Photo by Mike Phillips, MFRC*

(photo below) Biomass Guideline Committee members Dave Grigal, Dick Rossman and Bill Berguson (left to right) discuss site impacts related to the harvest of woody biomass. *Photo by Mike Phillips, MFRC*

[8]Minnesota Statutes 216B.2424

Monitoring

What do we monitor?

Monitoring is an essential component of the MFRC's efforts to ensure implementation of the SFRA.[9] The DNR, with oversight and direction from the MFRC, continues to move forward with three key monitoring programs identified in the SFRA:

• **Compliance monitoring** is the evaluation of the use of the timber harvesting and forest management guidelines contained in the guidebook *Sustaining Minnesota Forest Resources: Voluntary Site-level Forest Management Guidelines*.

• **Forest resource monitoring** evaluates broad trends and conditions in the state's forest resources at statewide, landscape, and site levels.

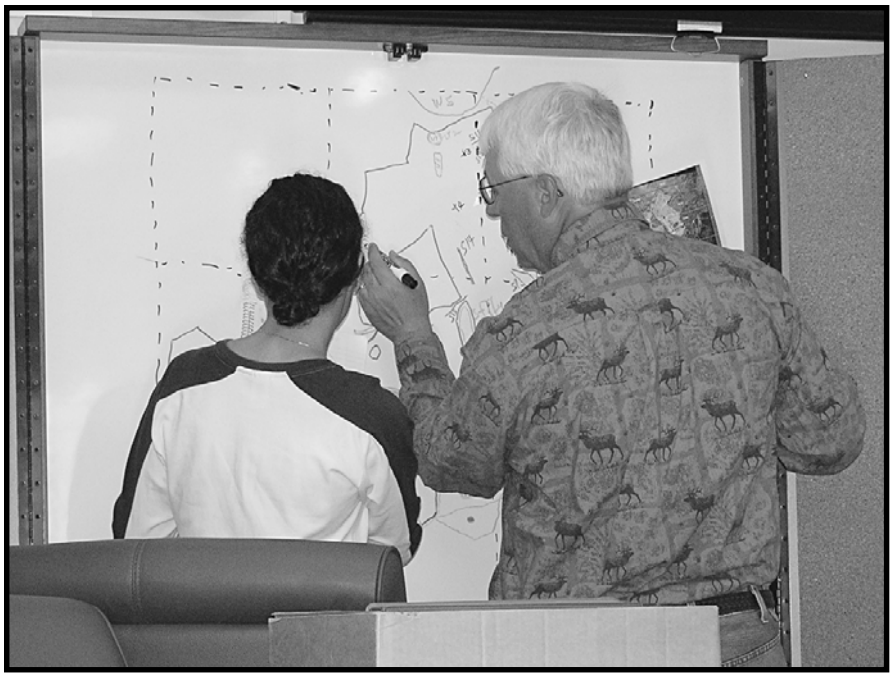
• **Effectiveness monitoring** provides a research focus for the Council as it evaluates the effectiveness of the guideline practices in protecting specified resource functions and values.

A monitoring team uses string levels to evaluate depth of rutting in a black spruce stand.
Photo by Mike Phillips, MFRC

In addition, the MFRC has the responsibility of maintaining a program to monitor and respond to citizen concerns regarding potentially negligent timber harvesting and forest management practices. This program is referred to as the Public Concerns Registration Process.

Monitoring is an essential component of the MFRC's efforts to ensure implementation of the SFRA.

[9]Minnesota Statutes 89A.07



Monitoring team members review and discuss compliance with guideline recommendations for a state timber sale. *Photo by Mike Phillips, MFRC*

What is the status of compliance monitoring for 2006?

The DNR completed its sixth year of monitoring the application of timber harvesting and forest management guidelines on public and private forestland.

The DNR is in the process of analyzing the three years of baseline monitoring results[10] (2000-2002) and statistically comparing these results to the three years of post-baseline results (2004-2006).

This analysis will provide the MFRC with information that includes:

• Identification of successes and deficiencies in the application of specific guidelines by landowner categories.

• Assistance to the MFRC, MLEP, MFRP, and Sustainable Forests Education Cooperative in targeting future education efforts and technical assistance to landowners, loggers, and resource managers.

• Identification of trends in guideline use to determine whether the stated goal of continuous improvement is being achieved.

In 2006, 91 sites were randomly selected and monitored (see box below). Of that total, only 29 were nonindustrial private forest (NIPF) landowners, even after an effort in 2006 to select a larger number of NIPF landowners by photographing additional sites during the site selection process.

Identifying, locating, contacting, and obtaining permission to visit harvest activities continues to be one of the primary difficulties that limits the number of participating NIPF sites.

Landowner category	Number of sites
NIPF	29
State	26
County	22
US Forest Service	4
Private Industrial	10
Total	**91**

How effective were monitoring and research efforts in 2006?

The MFRC continues to support the collaborative Legislative Commission on Minnesota Resources (LCMR) research project that is evaluating the effectiveness of the MFRC timber harvesting and forest management guidelines to protect specific riparian functions.

The MFRC is also supporting a study evaluating the economic costs of applying the guidelines. Both of these studies are important for ensuring that the guidelines provide for sustainable forest management.

[10]Baseline sites were those that were harvested or contracted for harvest prior to publication of the MFRC guidelines in 1999.

Evaluating the effectiveness of the MFRC riparian guidelines

Work is continuing on the LCMR-funded riparian research project titled *Evaluating Riparian Timber Harvesting Guidelines: Phase II.*

• Phase I of the study identified site conditions prior to timber harvest and evaluated immediate impacts to terrestrial, aquatic, and bird habitat immediately following harvest.

• Phase II is intended to characterize lasting impacts from harvesting, as well as whether those changes affect forest productivity and future site conditions.

• Phase III will identify and recommend changes to guidelines that could improve the ability of those practices to enhance riparian forest protection.

Assessing the costs associated with applying timber harvesting guidelines

A study titled *An Empirical Cost Assessment of the Timber Harvesting and Forest Management Guidelines in Minnesota* has begun, with the main goal of assessing the extent to which the application of MFRC timber harvesting and forest management guidelines results in additional financial costs to timber harvesters in the form of decreased production efficiency. This study will also evaluate the impact of site and stand factors on harvesting productivity.

The specific focus of the study will be to assess marginal cost differences in forestry operations with and without the guidelines. Activity motion recorders and global positioning system (GPS) data loggers will be used to assess time-in-motion for the harvesting and skidding equipment.

Aerial photography and field assessments will be used to evaluate the extent to which guidelines were applied during normal forestry operations. These techniques will provide an empirical measure of the difference in operational harvesting time with and without the guidelines.

The following organizations are supporting this research: University of Minnesota, Department of Forest Resources; Minnesota DNR; USDA Forest Service, Northern Research Station; MFRC; Minnesota Timber Producers Association; Minnesota Forest Industries; St. Louis County Land Department; and Minnesota Logger Education Program.

How do we monitor forestland uses?

In 2005, the MFRC monitored land use change using satellite-based change detection methods. These methods look for locations in which forestland is developed for housing, roads and other utilities, or agriculture. The very low rates of change reported last year failed to confirm widely held perceptions of much higher rates of forestland change in many areas of the state.

As a result, the MFRC is exploring alternative methods for quantifying forestland uses. Additional sources of information, including county tax parcel records, will be examined for potential use in documenting land use change. Current change detection methods, however, are very effective for identifying forest harvest and will continue to be used for that purpose.

Part of the monitoring process includes measuring basal area in riparian management zones. *Photo by Mike Phillips, MFRC*

How do citizen concerns regarding timber harvesting or forest management practices serve as ongoing monitoring?

The Public Concerns Registration Process (PCRP) provides a way for citizens to inform landowners, foresters, and loggers of specific concerns about timber harvesting and forest management practices that they see in Minnesota.

Although it is not a regulatory or punitive program to stop timber harvests or resolve disputes over contractual issues or forest management activities, the PCRP does encourage sustainable management of Minnesota's forests by emphasizing education of those involved.

Leave trees can provide food and habitat to a variety of bird species. *Photo by Mike Phillips, MFRC*

- **Citizens benefit** because the PCRP allows citizens to be a catalyst for mitigation of any problems on a site, and to learn more about forest management and sustainable forestry.

- **Landowners, loggers, and foresters benefit** by becoming more aware of public concerns regarding forest management, and by learning more about guidelines for sustainable forest management.

- **The MFRC benefits** from receiving summaries of concerns registered through the PCRP. These summaries help the MFRC understand citizens' expectations for how Minnesota's forests should be managed.

The MFRC can use these insights to decide which, if any, additional guidelines are needed and to identify continuing education programs needed for forest managers, forest owners, loggers, and citizens.

Landowners, loggers, and foresters benefit by becoming more aware of public concerns regarding forest management, and by learning more about guidelines for sustainable forest management.

What citizen concerns did the MFRC investigate in 2006?

In 2006, two citizen concerns were filed and investigated in Itasca and St. Louis counties. Since the program's inception in 1998, the PCRP has addressed a total of 23 concerns.

To learn more about activities of the PCRP, as well as a more detailed explanation of the PCRP process, visit the MFRC website at http://www.frc.state.mn.us/

Education

What is the Minnesota Logger Education Program?

The Minnesota Logger Education Program (MLEP) is a logger-initiated program established in 1995 to promote high operational standards, enhance logger professionalism, and respond to the SFRA.

MLEP provides training for logging business owners, employees, and other resource managers in the areas of sustainable forest resource management, workplace safety, business management, and transportation. (For more information, visit www.mlep.org)

In 2006, MLEP's membership includes 420 logging business owners. Membership is voluntary and reflects the commitment of logging business owners to safe, productive, and environmentally responsible timber harvesting. Independent research has determined that MLEP's membership currently represents more than 90% of Minnesota's annual timber harvesting activities.

The Minnesota Logger Education Program (MLEP) is a logger-initiated program established in 1995 to promote high operational standards, enhance logger professionalism, and respond to the SFRA.

What continuing education did loggers receive in 2006?

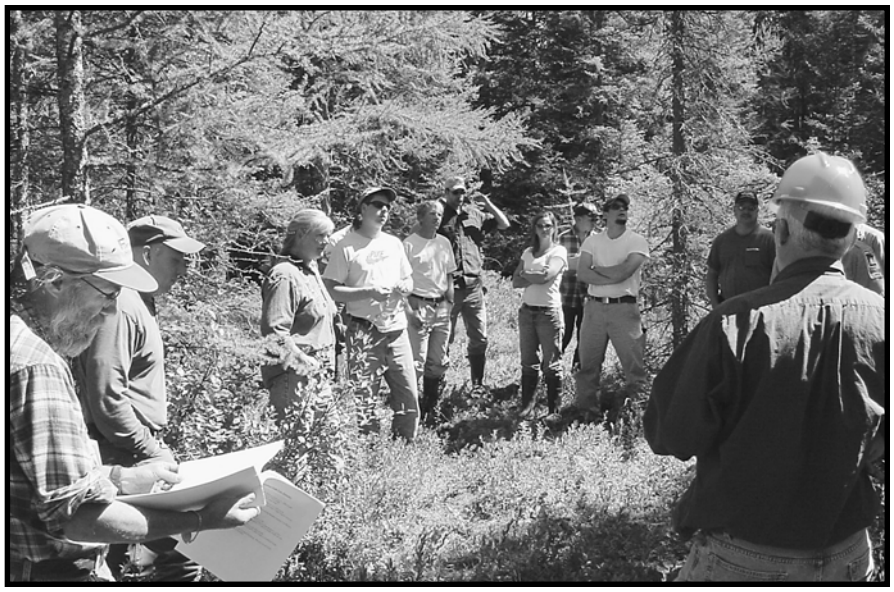
In an ongoing effort to improve the implementation of sustainable forest management practices, MLEP offered a variety of training opportunities for logging and natural resource professionals.

Training was offered throughout the state, including in Bemidji, Biwabik, Cloquet, Grand Marais, Grand Rapids, International Falls, Ironton, Rochester, Two Harbors, Virginia, and Walker.

MLEP coordinated a total of 27 workshops and two logger conferences. Specific topics included training on Minnesota's forest management guidelines, guideline implementation issues, road building layout and maintenance, operator select thinning, financial strategies for logging businesses, opportunities in biomass harvesting, utilizing GPS, equipment maintenance and training, skilled log truck driving, and truck weight compliance training.

In addition, MLEP maintains a database that tracks training completed by logging business owners and employees. To maintain membership status, MLEP members are required to attend 16 hours of continuing education on an annual basis.

MLEP also documents certain legal and business requirements, such as federal and state tax identification numbers, unemployment and workers' compensation insurance, workplace accident and injury reduction programs, and company policies on substance abuse.



DNR and county staff discuss minimizing impacts to peatlands harvested for decorative trees. *Photo by Mike Phillips, MFRC*

What is logger certification?

MLEP's Master Logger Certification Program provides added confidence to customers and the public that the person performing a harvest has the education and experience to do the job correctly. It is an independent, third-party audit of a logging business's harvest, safety, and business practices.

Logger certification provides formal recognition of those logging businesses that have met the high standard required for certification.

Demand for certified forest resources is increasing. Timber harvested from family forestland (NIPF land) by Minnesota Certified Master Loggers can be marketed to mills and other customers as certified wood. In 2006, 10 logging businesses achieved the status of "Minnesota Certified Master Logger."

What is the Sustainable Forests Education Cooperative?

The Sustainable Forests Education Cooperative (SFEC), located in the College of Food, Agricultural, and Natural Resource Sciences, University of Minnesota, was established in response to the Minnesota Sustainable Forest Resources Act of 1995.

Its purpose is to provide innovative education programs for natural resource professionals by providing training on current research findings, new technologies, and state-of-the-art practices.

The cooperative continues to promote excellence in natural resource management by offering a range of technical and professional education programs for practicing natural resource managers in all sectors of forestland management professions, including wildlife management. (For more information, visit http://sfec.cfans.umn.edu/)

The Cooperative has also been a co-leader in the planning and implementation of MFRC forest management guideline education programs since 1999. In September 2006, two forest management guidelines workshops (Introductory and Site Quality) were held near Winona in southeastern Minnesota.

In addition, a new workshop was added to the forest management guidelines education programs to address topics specifically related to forest roads. The Forest Roads and Skid Trails Construction and Maintenance workshop was offered twice this fall, once in north central Minnesota and once in northeastern Minnesota.

What continuing education did natural resource professionals receive in 2006?

As in previous years, educational programming for natural resource professionals in 2006 addressed a variety of topics, including woody biomass management and utilization, field data collection and management, ecological classification systems, forest genetics, ecological forestry, and forest landscape goals.

A highlight of 2006 was graduating the first training group in the certificate course in Ecosystem Silviculture. This six-module, intensive short course, funded by the Blandin Foundation's Vital Forests/Vital Communities Initiative, is the first in-depth, multi-agency training to utilize the ecological forest site classification system in field skill practice and in management applications.

By June 2007 all three training groups, a total of 60 trainees, will have completed the course. These 60 trainees include 26 county land department foresters, nine DNR wildlife biologists, five Bureau of Indian Affairs foresters, four tribal foresters, four DNR foresters, three community college instructors, two industry foresters, two Soil and Water Conservation District foresters, two USDA Forest Service, Superior National Forest silviculturalists, one Minnesota DNR Office of Management and Budget forest ecologist, one forester from The Nature Conservancy, and one private consulting forester. (See http://sfec.cfans.umn.edu/featured.html#cces)

A highlight of 2006 was graduating the first training group in the certificate course in Ecosystem Silviculture. Funded by the Blandin Foundation, this course is the first in-depth, multi-agency training to utilize the ecological forest site classification system in field skill practice and management applications.

In January 2006, the Cooperative held the fifth Forest and Wildlife Research Review Symposium. This program included research presentations on web-based silviculture guides, changes in Great Lakes forest cover, carbon accounting, trends in the wildland real estate market, forest waterfowl and wetland issues, and the evolution of transportation in the Upper Midwest and its potential impacts on forest product movement.

This symposium attracted approximately 140 participants. The MFRC continues to be a financial sponsor of this symposium.

The Cooperative coordinated 13 workshops and conferences (35 workshop days) during 2006, including assisting the Minnesota Tree Improvement Cooperative with its third Northern Forest Genetics Association Conference.

In addition to workshops and conferences, the Cooperative continues to manage a database that tracks continuing education credits for the Minnesota Forest Stewardship Program.

Forest Information-Sharing and Outreach

How is information shared among forest resource agencies?

The Interagency Information Cooperative (IIC), mandated by the SFRA, was established to increase information-sharing among forest resource agencies, landowners, managers, and the general public. The IIC website, established in 1998, continues to provide information about Minnesota's forest resources (http://iic.gis.umn.edu/).

The IIC was created in the late 1990s to enhance the access and use of forest resources data in Minnesota. In 2004, the Legislature moved responsibility for the IIC to the University of Minnesota.

The University of Minnesota has conducted a user needs assessment and implemented a new web design for the site to make it more user friendly. It also added new information to the site, including:

• Strategies for Improving Forest Productivity in Minnesota

• IIC User Needs Assessment

• *Minnesota's Forest Resources,* a 2005 DNR report

How is information about the MFRC and its activities made available to the public?

• The MFRC website continues to serve as an integral source for information. The MFRC regularly posts new reports and information at www.frc.state.mn.us

• Information about the MFRC periodically appears in the press.

How is the public encouraged to participate in forest resources programs?

MFRC and SFRA programs all require participation of individuals interested in forest resources in Minnesota. There are many ways for interested individuals to become involved:

• **Attend MFRC meetings.** Scheduled meetings are posted on MFRC's website at www.frc.state.mn.us/Info/calendar.html, or call 651-603-0109 for meeting dates.

• **Participate in landscape regional committees.** For more information, contact Lindberg Ekola at 320-256-8300 or ekola.mfrc@charter.net

• **Use the timber harvesting/forest management guidelines.** They are available on MFRC's website at http://www.frc.state.mn.us/FMgdline/Guidebook.html, or contact the MFRC at 651-603-0109 for a paper copy.

• **Notify the MFRC of specific timber harvesting or forest management activities that concern you.** Call toll-free 1-888-234-3702, or register your concern online at www.frc.state.mn.us

• **Attend forest resources educational programs.** For additional information, contact:

– Sustainable Forests Education Cooperative: Call 218-726-6404 or go to http://sfec.cfans.umn.edu/

– Minnesota Logger Education Program: Call 218-722-5442 or go to www.mlep.org/

• **Access information regarding Minnesota's forest resources** from the Interagency Information Cooperative at http://iic.gis.umn.edu/

MFRC Documents Produced in 2006

All MFRC documents are available on the MFRC's website: www.frc.state.mn.us/Info/MFRCdocs.html

MFRC Annual Report

2005 Annual Report to the Governor and Legislature on the Implementation of the Sustainable Forest Resources Act (January 2006)

Landscape Program

An Ecological Classification and Assessment of Minnesota's Northern Landscape. George Host, Terry Brown, and Paul Meysembourg, Natural Resources Research Institute, University of Minnesota-Duluth, November 2006

Minnesota Forests and the Range of Natural Variation: A 10-Year Update for the Northern Superior Upland and Drift and Lake Plains Ecological Sections of Northern Minnesota. George Host and Terry Brown, Natural Resources Research Institute, University of Minnesota-Duluth, May 2006

Guideline Program

Costs and Benefits of Riparian Forest Management: A Literature Review. Robert Paterson and Dr. Kevin Boyle, Industrial Economics, December 2005

Monitoring Program

Minnesota Forest Resources Council – Public Concerns Registration Process 2006 Annual Report (August 2006)

Acronyms

BGC	Biomass Guidelines Committee
DNR	Department of Natural Resources
FIA	Forest Inventory and Analysis
FSC	Forest Stewardship Council
GIS	Geographic information system
GPS	Global positioning system
IIC	Interagency Information Cooperative
LCMR	Legislative Commission on Minnesota Resources
MLEP	Minnesota Logger Education Program
MFRC	Minnesota Forest Resources Council
MFRP	Minnesota Forest Resources Partnership
NIPF	Nonindustrial private forest
PCRP	Public Concerns Registration Process
PCWL	Productive Conservation on Working Lands
RSTC	Riparian Science Technical Committee
SFEC	Sustainable Forests Education Cooperative
SFI	Sustainable Forestry Initiative
SFRA	Sustainable Forest Resources Act
USDA	U.S. Department of Agriculture

Minnesota Forest Resources Council 2006 Annual Report to the Governor and Legislature on the Implementation of the Sustainable Forest Resources Act

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