Minnesota Forest Resources Council

2004 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
  North Central Research Station
  State and Private Forestry
University of Minnesota-Duluth
  Natural Resources Research Institute
University of Minnesota
  College of Natural Resources:
    Center for Continuing Education
  Extension Service

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From the Chair

An Overview of MFRC Accomplishments in 2004

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

The Minnesota Forest Resources Council (MFRC) had another successful year in 2004. Our work includes several accomplishments from well-established programs, as well as new initiatives that will help chart our future course.

1. The Council set strategic direction for its activities over the next several years.

To place more emphasis on policy initiatives, we revised the mission and composition of several of our committees, and we will be implementing revisions in staff and resource allocation over time.

2. With encouragement from the Council and diverse partners, the 2003 Minnesota Legislature passed legislation to help improve the competitiveness of Minnesota's primary forest products industry.[1]

Several Council members and staff played critical roles in helping implement key recommendations of the 2003 *Governor's Task Force Report on the Competitiveness of Minnesota's Primary Forest Products Industry.* (See page 4.)

3. The Council continues to be an active partner with the Blandin Foundation in its *Vital Forests/ Vital Communities Initiative*, which provided $753,000 in grants for sustainable forestry education and research.

Several Council members and staff serve on the advisory board to this initiative. (See page 4.)

4. We completed final plans for the West Central and Northern landscape regions and initiated plan development for the East Central Landscape Region.

Plans have now been completed for five of the six major forested landscapes in Minnesota.[2] These plans were the result of two years of work by diverse forest interests in each landscape region.

Each plan outlines landscape-level goals and strategies that provide a strategic, long-term context for public and private land managers to consider in their operational planning and management. The East Central Landscape Region Plan will be completed by June 2005. (See page 8.)

5. Three additional landscape regions began implementing plans that were approved in 2003.

The Northeast, North Central, and Southeast landscape regions have established landowner coordination groups to oversee and promote plan implementation. All six major forested landscape regions will have coordination groups established in 2005. (See page 9.)

[1] "Primary forest products industry" refers to producers of lumber, engineered wood products, and paper, whose products are typically inputs to other industries.

[2] See page 6, Figure 1, for a map of the eight MFRC landscape regions.

6. The Council completed public review and formally approved revisions to the voluntary timber harvesting and forest management guidelines.

These site-level guidelines, which are applied by loggers and public and private land managers statewide, will be published by summer 2005. (See page 12.)

7. To continue to improve the site-level guidelines, a Riparian Science Technical Committee was created to assess the latest scientific findings related to timber harvesting and forest management impacts on riparian areas.

In 2005, the Council will consider the scientists' judgments on forest management impacts to various types of water bodies and then develop recommendations for revising riparian aspects of the guidelines. (See page 13.)

8. The Council and the Minnesota Department of Natural Resources (DNR) completed three-year baseline monitoring of the site-level guidelines.

Data collected during the baseline period (2000 to 2002) were published in the report titled *Baseline Monitoring for Implementation of the Timber Harvesting and Forest Management Guidelines on Public and Private Forest Land in Minnesota: Combined Report for 2000, 2001, and 2002, DNR Document MP-0904*. Important findings are summarized on page 15.

9. Consistent with trends in forest certification, the Council moved to third-party guideline monitoring.

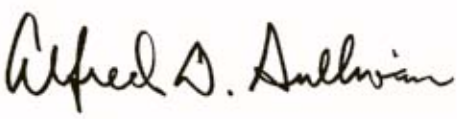
The approach used to conduct site-level guideline compliance monitoring was shifted from using integrated teams of state employees to contracting with third-party auditors. (See page 15.)

A view from underneath a white pine. This tree provides important habitat for bald eagles, osprey, black bear, and a wide array of other wildlife. *Photo by Chad Skally*

10. We analyzed the acres and distribution of timber sold by public landowners.

This study provides previously unavailable information on acreage of public land timber harvest. It concludes that slightly less than one percent of public timberland[3] acreage was sold for harvest in 2001. (See page 21.)

The MFRC concludes its ninth year of operation with a strong core of program accomplishments, as well as a fresh perspective on the challenges we face in the coming years to ensure forest sustainability in Minnesota.



Alfred D. Sullivan
Chair

[3] Timberland is forestland that is not restricted from harvesting by statute, administrative regulation, or designation and is capable of growing trees at a rate of 20 cubic feet per acre per year.

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).[4]

♦ 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.

♦ **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.

Sustainable management includes planning for the future of forests. *Photo by Chad Skally*

Who is on the MFRC?

The Governor appoints a chair and 15 other members to the MFRC. 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

[4] Minnesota Statutes 89.05, Subd. 2

MFRC Forest Policy Initiatives

What forest policy initiatives were under way this year?

The MFRC worked on three policy initiatives related to sustainability of Minnesota's forestland:

Policy Initiative #1: Assist in implementing recommendations in the *Governor's Task Force Report on the Competitiveness of Minnesota's Primary Forest Products Industry.*

Throughout 2004, several MFRC members and staff participated on the Governor's Task Force Report Implementation Team. This implementation group worked with the Legislature to pass several key bills:

♦ One new law (Minnesota Statutes 169.8261) increases truck weight limits for inbound logging trucks so that they are comparable to Wisconsin's weight limits. This law will help decrease the cost of wood transportation, while continuing to maintain safety and environmental protection.

♦ Another law (Minnesota Statutes 89.035) created a Forest Management Investment account, with $6.2 million per year in initial funding. This law allows state timber sale receipts to be deposited in an account dedicated to reforestation and sustainable management of state-administered forestland.

This log truck is being weighed at a weigh station. *Photo courtesy of Minnesota Timber Producers Association*

Policy Initiative #2: Continue to be an active partner with the Blandin Foundation in its *Vital Forests/Vital Communities Initiative.*

The MFRC continues 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 health of the forest ecosystems that support it.

As part of the initiative, the Blandin Foundation provided $753,000 in grants for sustainable forest-based education, research, and economic development.

During 2003, the Minnesota Forest Resources Council worked on three policy initiatives related to sustainability of Minnesota's forestland.

Third-party certification of forests works to improve forest management on tracts such as this one. *Photo by Chad Skally*

Two MFRC members, one former member, and one MFRC staff person serve on the initiative's advisory board. Membership on the advisory board provides excellent opportunities to leverage state, federal, and private investments in sustainable forest use, management, and protection.

In addition, many MFRC members and several staff actively participated in two conferences that the Blandin Foundation sponsored in 2004.

One conference explored the options for third-party certification of private forests in the state. The other conference was designed to build the capacity of Minnesota's wood products manufacturing industry.

Policy Initiative #3: Promote broader implementation of third-party forest certification.

As reported in the 2003 MFRC Annual Report, third-party certification of forestland is a growing trend. In 2004, we examined certification activity and recognized the need to accelerate certification of private woodland owners' land.

It is becoming increasingly clear that, to encourage private woodland owners to certify their lands, loggers will play a key role in private land certification initiatives. As a result, the MFRC is actively supporting logger training and certification initiatives in cooperation with the Minnesota Logger Education Program and other partners.

In addition, the MFRC explored the feasibility of leveraging certification field audit information and activities with guideline monitoring information and activities, since both are "in-the-woods" evaluations of good forest management practices.

The feasibility of streamlining these two systems remains as an opportunity in future years. Currently, the MFRC will encourage activities that educate the public and enhance the credibility of certification, since the economic benefit of certification accrues from the market's belief that on-the-ground activities are sound.

Forest Resource Planning and Coordination

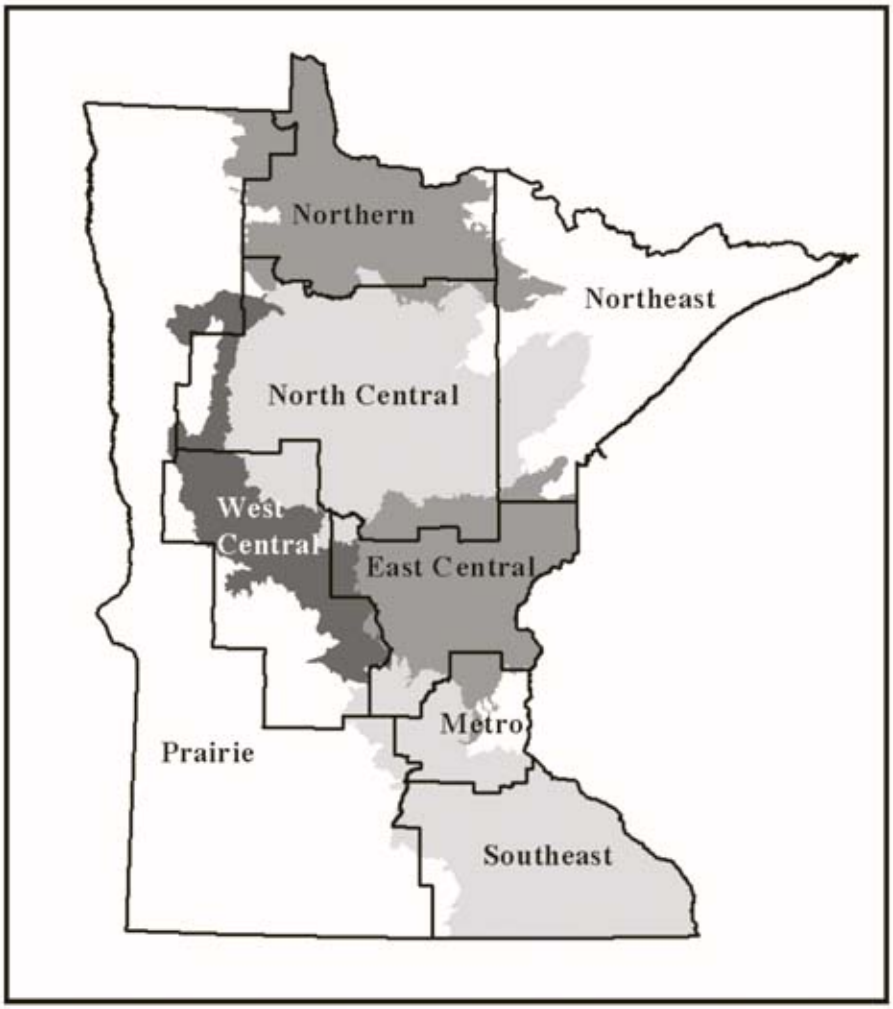


Figure 1. Landscape regions. Solid lines represent administrative boundaries; shaded areas represent ecological boundaries. Although the regional borders follow county boundaries to facilitate coordination among units of government, they also correspond closely with the borders of ecological regions.

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 solutions to sustainability challenges.

In six major forested regions (Figure 1; all except the Metro and Prairie regions), residents and stakeholder representatives have worked cooperatively to:

- **Gather and assess information** on each region's economic, social, and ecological characteristics.
- **Identify key issues and plan ways to address those issues** to promote sustainable forest management.
- **Agree on desired future forest conditions** that promote sustainable forests, and agree on goals and strategies to achieve those conditions.
- **Coordinate agreed-upon strategies, activities, and plans** among forest landowners and managers to achieve desired future forest conditions.

What plans were completed in 2004?

During 2004, regional committees completed plans for the West Central and Northern regions. Each plan outlines landscape-level goals and desired future conditions for the region's forests, and then suggests multiple strategies for consideration by public and private land managers.

Minnesotans enjoy outdoor recreation in forests, including "skijoring," in which a cross-country skier is pulled by a dog wearing a special harness. *Photo by Chad Skally*

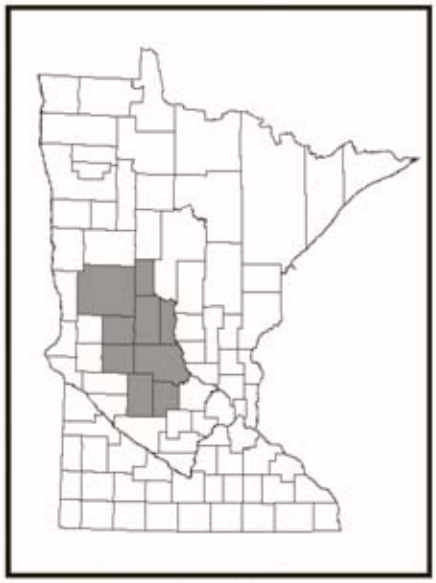


Figure 2. West Central Landscape Region.

The West Central Plan[5]

In the West Central Plan (Figure 2), the regional committee envisions a landscape that has the following attributes:

♦ Forest and prairie ecosystems are healthy, resilient, and functioning, providing sustainable economic and/or recreational opportunities.

♦ Water resources are managed to sustain their health for people and provide critical habitat for many species of plants and animals.

♦ Viable and geographically diverse natural resource businesses, which advocate the long-term stewardship of community resources, exist and grow in the landscape.

♦ The public is well educated relative to environmental concerns and how to obtain technical assistance.

♦ Cooperation and coordination among agencies, interest groups, and private landowners result in effective communication, planning, and natural resource management.

♦ Land use policies, regulations, and voluntary opportunities are in place to preserve the rural land base, recognizing that wise development is necessary.

To achieve this future vision, the plan urges managers to:

♦ Restore native forest types on 75,000 acres.

♦ Maintain the existing number of tracts of 500+ contiguous acres of forestland.

♦ Develop outreach and education programs.

♦ Protect the rural land base from unrestricted development.

♦ Promote a tax structure that provides incentives for sustainable natural resource management.

[5] The title of the plan is *Forests in the West Central Landscape: Desired Outcomes, Goals and Strategies, March 16, 2004.*

Figure 3. Northern Landscape Region.

The Northern Plan[6]

In its recently completed Northern Landscape plan (Figure 3), the Northern Regional Committee made recommendations for the economic, social, and ecological conditions desired for the landscape:

Economic:

A vibrant economy capable of sustaining the Northern Landscape's population and communities.

Social:

A landscape that has a distinctive identity, where residents and visitors have a strong sense of place, and that fulfills social needs.

A region that balances social needs and landscape planning.

Ecological:

A viable, healthy, functioning ecosystem maintained on the landscape.

[6]The title of the plan is *Recommended Desired Outcomes, Goals and Strategies: Northern Landscape Region, May 25, 2004.*

To work toward these desired conditions, the Northern Regional Committee recommends:

♦ Encouraging sustainable use of landscape assets.

♦ Maintaining or increasing timber harvest.

♦ Maintaining or increasing access to public lands, public waters, and private lands open to the public.

♦ Improving information sources for decision-making.

♦ Ensuring the role of natural processes and disturbances in planning and implementing management activities.

What additional plans are being finalized?

The landscape plan for the East Central Region will be finalized in 2005.

The East Central Plan

A regional landscape plan for the East Central Landscape (Figure 4) is anticipated to be complete by June 2005. The East Central Regional Committee envisions a landscape that:

♦ Moves toward the range of variability for plant communities naturally living and reproducing in the landscape.

♦ Has spatial patterns, including the size and location of openings, that are consistent with the ecology of the region.

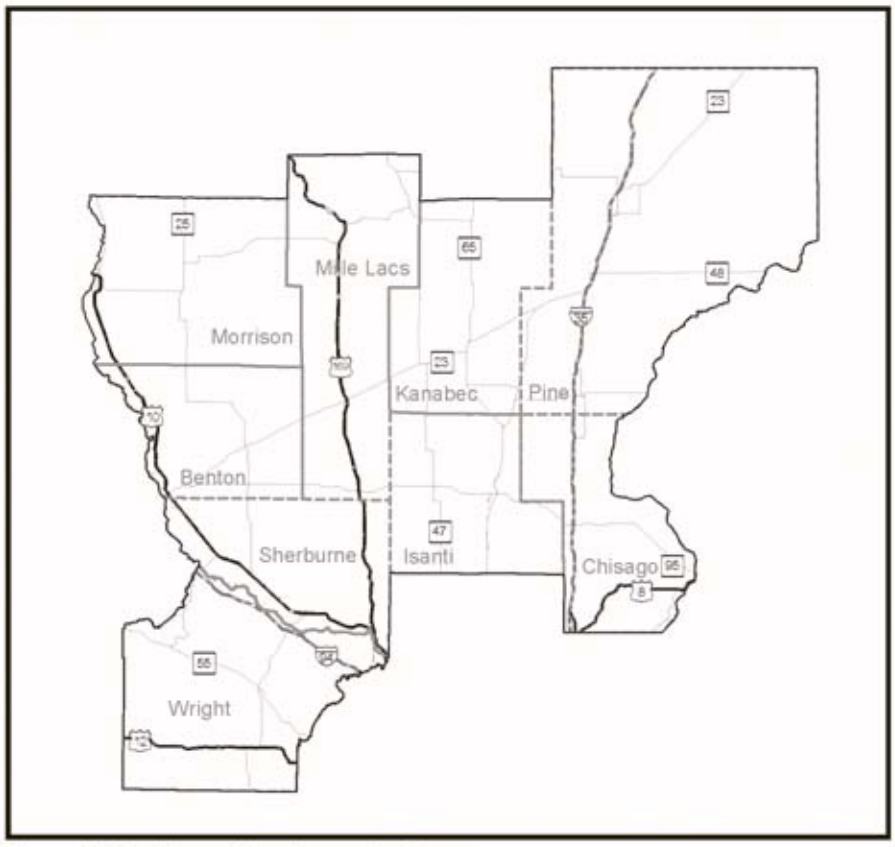


Figure 4. East Central Landscape Region.

♦ Provides diverse habitat to maintain natural communities and viable populations of plant and animal species.

♦ Supports a full range of forest products and recreational activities in a sustained manner.

The East Central Committee has nearly completed the development of goals and strategies designed to guide efforts to achieve the desired future conditions for four resource initiatives, including ecological, economic, social, and administration/coordination initiatives.

Four of the six fastest-growing counties in the state are located in the East Central Region. This region is close to the Twin Cities metropolitan area, and almost 90% of the landscape is privately owned.

For these reasons, the Committee is recommending a comprehensive set of coordinated actions by the nine counties and local organizations within them, as well as by public resource agencies. These coordinated actions will be designed to promote sustainable forest management within the urbanizing landscape.

How is implementation of regional plans occurring?

With planning completed in five of the six major forested landscapes, the MFRC's landscape program has continued to shift its emphasis to implementation and coordination of the completed plans (Figure 5, page 10).

Northeastern Minnesota has seen an "irruption" of great grey owls in late 2004 due to a cyclic low in the number of voles, the owls' food supply, in Canada. Irruptions occur every few years. *Photo by Jim Lind, Center for Water and the Environment–Natural Resources Research Institute*

Coordination groups, made up of both public and private land managers from the Northeastern, North Central, and Southeastern landscapes, continue to meet on a quarterly basis to implement the plans. The Northern and West Central regions are in the process of organizing coordination groups.

The MFRC is working with the Minnesota Forest Resources Partnership in providing staff assistance and support to the three northern landscapes.

Highlights of the plan implementation and coordination work in 2004 include the following:

Northeast Regional Landscape

♦ In September, 50 people attended a professional workshop on landscape ecology developed in cooperation with the University of Minnesota's Center for Continuing Education of Natural Resource Professionals.

♦ The Northeast Landscape Coordination Group cooperated with the North Central Forest Research Station, The Nature Conservancy, and others to analyze the cumulative effects of management and to model the consequences of future management scenarios.

♦ The group shared information and developed common maps and data to help identify potential areas of cooperation.

North Central Regional Landscape

♦ The North Central Landscape Coordination Group shared information on individual agency/company management philosophy and plans.

♦ The group identified potential areas of cooperation.

Southeast Regional Landscape

♦ The Southeast Landscape Coordination Group activated the Wabasha Legacy Area.

♦ The group developed a landowner workshop on landscape ecology principles in cooperation with the University of Minnesota's Center for Continuing Education of Natural Resource Professionals.

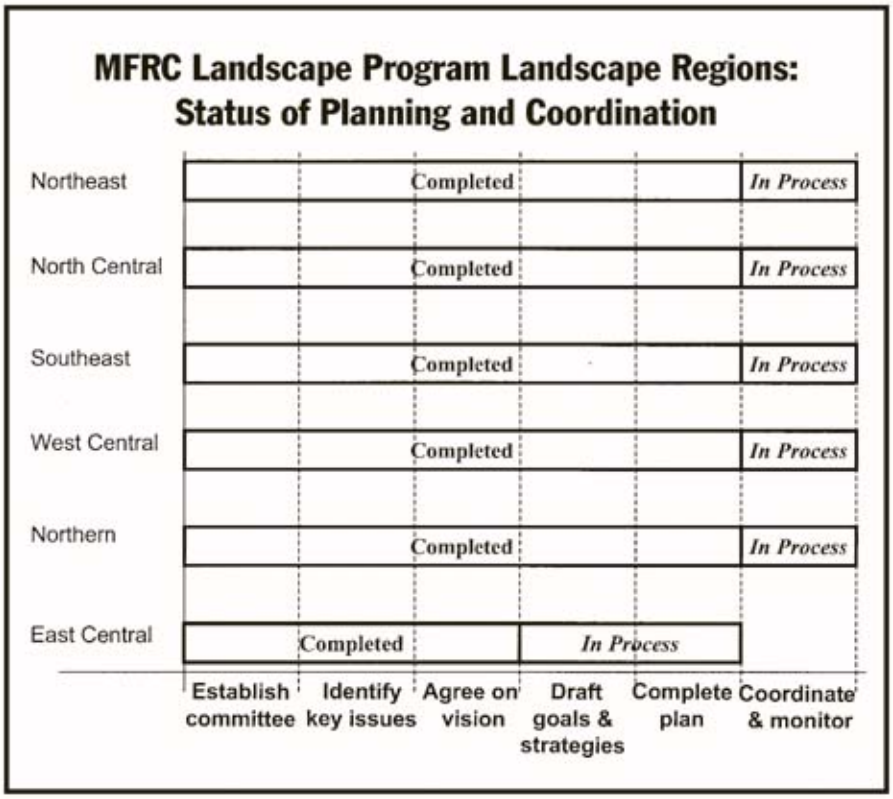


Figure 5. Status of planning and coordination in MFRC forested landscape regions.

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

Documenting the impact 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 most of the information useful in sustainable forestry decision-making. Subsequent monitoring will periodically update that information.

The landscape program will continue to facilitate the efforts of landowners and managers to coordinate their activities in all major forested landscapes.

What are the next steps for the landscape program?

In 2005, the landscape program will:

♦ **Complete the East Central Region landscape plan.**

♦ **Explore the feasibility** of preparing a Metro Region Forest Resource Landscape Plan by cooperating with the Minnesota Shade Tree Advisory Committee, Tree Trust, Metropolitan Council, and other partner organizations.

♦ **Continue to facilitate the efforts of landowners and managers** to coordinate their activities in all major forested landscapes. Particular focus will be placed on working with the Superior and Chippewa national forests on joint monitoring efforts in the Northeast and North Central landscape regions.

♦ **Increase public awareness** of landscape goals and strategies by developing workshops for targeted audiences.

♦ **Improve our ability to monitor progress** toward achieving landscape goals.

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. Updated FIA data will help document changes brought about by implementing the landscape plan.

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

It will be essential to document the activities of partners as they implement the 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 the insight and energy needed to sustain the effort.

3. Do landscape partners have specific information needs that can be addressed via monitoring?

As landscape plans are implemented, unanticipated opportunities may arise or creative solutions to new problems may be needed. Landscape partners will need information that may not have been anticipated in initial monitoring designs. Monitoring must be flexible enough to provide for those needs.

It will be essential to document the activities of partners as they implement the MFRC landscape plans.

A northern Minnesota aspen stand at sunset. *Photo by Chad Skally*

Guideline Review & Revision

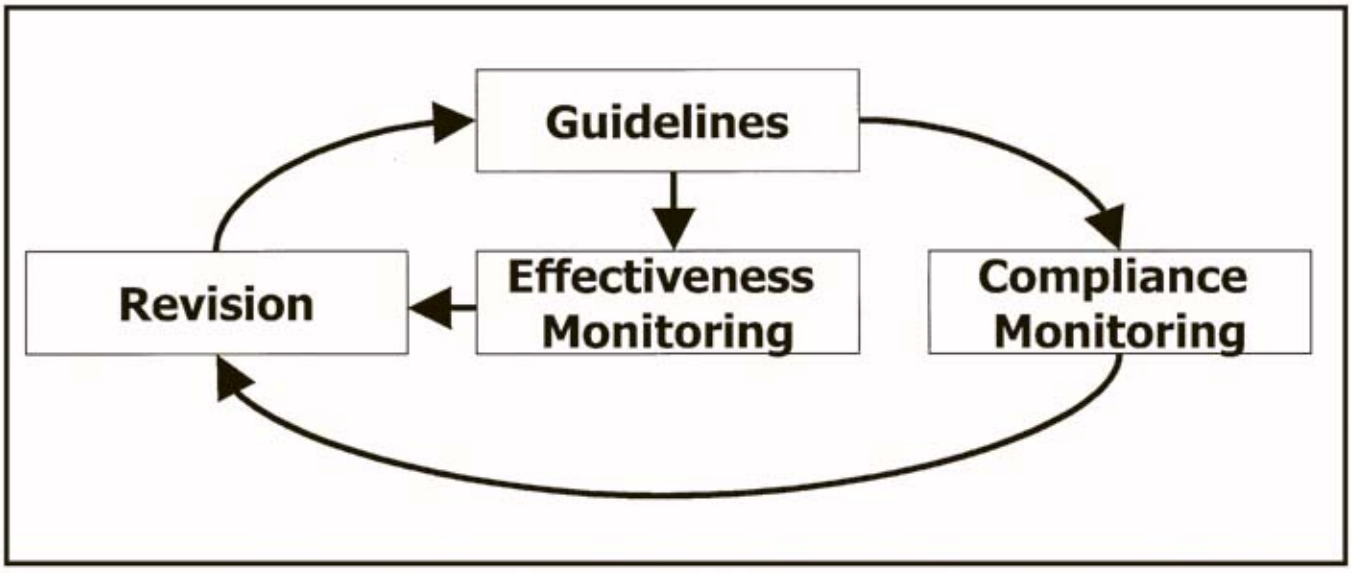


Figure 6. The MFRC's process of monitoring voluntary guidelines, which in turn promotes the need for revisions.

Why are the forest management guidelines being reviewed and revised?

The development of comprehensive timber harvesting and forest management guidelines in March 1999, titled *Sustaining Minnesota Forest Resources: Voluntary Site-Level Forest Management Guidelines*, was a core mandate in the Sustainable Forest Resources Act (SFRA) and a major MFRC accomplishment.

At that time, the Minnesota Legislature anticipated the need to periodically review and revise the voluntary guidelines[7] based on learnings from compliance and effectiveness monitoring (Figure 6).

What progress was made in 2004 in the guideline revision process?

The MFRC completed public review of proposed guideline changes in June 2004. After modifications were made based on comments received during the public review, the MFRC approved the language for the revised guidelines.

[7] Specifically, Minnesota Statutes, Chapter 89A.05, Subd. 1, states that "…By June 30, 2003, the council shall review the guidelines and identify potential revisions. If deemed necessary, the council shall update the guidelines by June 30, 2005…"

What are future planned revisions to the guidelines?

In 2002, it was determined that, due to the difficulty in gaining agreement on specific aspects of guidelines related to riparian management zones, most riparian management issues would be deferred to the next cycle of guideline revision.

Although the deadline for the next cycle of revision has not yet been determined, the MFRC formed a science technical committee in 2004 to review riparian-related research relevant to Minnesota.

The Riparian Science Technical Committee is composed of nine highly experienced senior scientists who represent a wide array of relevant scientific disciplines.

The committee will provide unbiased scientific information about riparian areas[8], as well as about timber management practices needed to protect riparian areas at the site level.

This information will be provided to the MFRC, which will use the results to develop recommendations for revision to riparian guidelines sometime after 2005.

A healthy stream depends on careful management of timber harvest adjacent to streams and other water bodies. *Photo by Mike Phillips/Minnesota Forest Resources Council*

The Riparian Science Technical Committee, composed of nine highly experienced senior scientists, will provide unbiased scientific information about timber management practices needed to protect riparian areas.

[8] Riparian area: The area of land and water forming a transition from aquatic to terrestrial ecosystems along streams, lakes, and open water wetlands.

Monitoring

Why do we monitor?

The DNR, in consultation with the MFRC, continues to carry out its obligations under the SFRA[9] with regard to four monitoring mandates:

♦ Monitor the application of the guidelines contained in *Sustaining Minnesota's Forest Resources: Voluntary Site-Level Forest Management Guidelines* on public and private forestland. This is referred to as **compliance monitoring.**

♦ Evaluate the effectiveness of these guidelines in protecting the specific resource functions. This is referred to as **effectiveness monitoring.**

♦ Monitor broad trends and conditions of Minnesota's forests at statewide, landscape, and site levels. This is referred to as **future resource monitoring.** (See pages 10-11 for a summary of landscape monitoring activities.)

♦ Accelerate monitoring of the use and effectiveness of guidelines in protecting riparian management zones. This effort was discontinued in 2003, because it was determined that timber harvest in riparian zones was occurring at a much lower rate than in non-riparian zones.

As part of guideline monitoring, auditors measure the full width of a stream. *Photo by Mike Phillips/Minnesota Forest Resources Council*

What have we observed from three years of compliance monitoring?

Monitoring the application of the guidelines contained in *Sustaining Minnesota's Forest Resources: Voluntary Site-Level Forest Management Guidelines* on public and private forestland is a core program mandated by the SFRA. The DNR, which has statutory responsibility to implement compliance monitoring, with guidance and oversight from the MFRC, has conducted this monitoring since 2000.

Data collected during the baseline period from 2000 to 2002 were analyzed, and the results were published in the report titled *Baseline Monitoring for Implementation of the Timber Harvesting and Forest Management Guidelines on Public and Private Forest Land in Minnesota: Combined Report for 2000, 2001, and 2002, DNR Document MP-0904.*

The results for 2000 to 2002 are considered to be baseline[10], except for water quality and wetlands protection guidelines. In total, the results of monitoring 334 sites for 2000, 2001, and 2002 are summarized in this report.

[9] Minnesota Statutes 89A.07

[10] Baseline means that these sites were harvested and/or stumpage was sold prior to publication of the guidelines in 1999.

Important Findings from the Baseline Years of Monitoring

❒ Of the sites monitored, 25% were visually sensitive.

❒ Filter strip compliance with the guideline recommendation (< 5% mineral soil exposure, dispersed over the filter strip) was 73%.

❒ Riparian management zone (RMZ) guideline recommendations for width and residual basal area were met 52% of the time.

❒ Appropriate water diversion and erosion control practices were installed on 7.4% of skid trail and road approaches to wetlands and streams (three-year data).

However, more detailed information gathered in 2002 found that erosion was evident on only 5.8% of the approaches, and sediment was reaching a water body on 59% of those with erosion evident.

❒ Only 6% of more than 2,000 locations on the 89 sites monitored in 2002 had rutting 6 inches deep or deeper. Most rutted locations (78%) had less than 5% of their surface area in ruts, and 47% of the rutting was confined to roads, skid trails, and landings.

❒ The guidelines recommend that site infrastructure (i.e., roads, landings) occupy no more than 3% of the harvest area. The statewide average was 3% for all three years.

❒ Coarse woody debris guidelines were met in 79% of the general harvest areas and in 69% of the RMZs.

❒ Leave tree guideline recommendations were met on 53% of the clearcut sites.

The report recommends that future monitoring continue to 1) use satellite imagery for selecting timber harvest monitoring sites, and 2) emphasize the need for ongoing training for improved logger and forester awareness.

What is the plan for compliance monitoring in 2004-2006?

Post-baseline compliance monitoring began in 2004. Three years of field monitoring data will be collected between 2004-2006, after which statistical analysis will be completed, including comparison to the 2000-2002 baseline dataset.

The first year of post-guideline monitoring was conducted during the summer of 2004. Specifically, the monitoring approach was modified in two ways:

♦ The number of sites monitered was reduced from 120 to 90. Experts advised that 90 sites are sufficient for statistical validity in identifying trends of guideline application.

♦ Field audits were conducted by a third-party contractor, instead of by staff. This third-party approach to the field audits, using experts in hydrology, soil science, and forest management, provides greater credibility to the process.

Harvested wood is the source for paper, cardboard, furniture, and lumber for houses. The average person in the United States utilizes up to 12 pounds of wood per day—equivalent to a 100-foot-tall tree with a diameter of 16-18 inches over the course of a year. *Photo by Chad Skally*

What work has occurred in effectiveness monitoring?

The MFRC sponsored or supported three research projects in 2004 that directly relate to evaluating the effectiveness of the timber harvesting and forest management guidelines in protecting specific resource functions. These three projects focused on:

♦ Assessing the effectiveness of riparian guidelines.

♦ Assessing and minimizing wind damage to various species of leave trees.

♦ Assessing the impact of skid trails on soil compaction and regeneration.

These three research studies and future efforts are important to the MFRC to ensures that decisions on guideline revisions are based on sound science.

1. Assessing the effectiveness of riparian guidelines

In 2001 the Minnesota Legislature appropriated $200,000 for a project titled "Evaluating the Sustainability of Timber Harvesting and Forest Management Practices in Riparian Areas." Harvesting was conducted on seven of the eight study sites during the winter of 2003/2004, and immediate post-harvest data were collected.

During the summer of 2004, DNR and MFRC staff utilized compliance monitoring protocols to evaluate the application of the guidelines for the seven harvested research sites.

Because funding for this long-term effectiveness monitoring research expired in June 2004, the MFRC is seeking additional funds for University of Minnesota researchers and other partners to continue to monitor the impacts of the harvests in 2004 over the next few years. Additional monitoring data will provide important insights into the effectiveness of Minnesota's guidelines in protecting riparian areas.

Field staff evaluated the application of MFRC's riparian guidelines in areas adjacent to forested streams, such as this one. *Photo by Mike Phillips/Minnesota Forest Resources Council*

2. Assessing and minimizing wind damage to various species of leave trees

Part of the riparian research funded by the MFRC in 1999 focused on the fate of leave trees following harvest. Three complementary studies undertaken in this project were designed to:

♦ Evaluate the extent of blowdown by species in the pre-established riparian treatment sites. The data from this research described the species and size classes of riparian leave trees that were subject to wind damage in the three years following clearcuts in adjacent uplands and thinning in the riparian areas.

♦ Survey forestry professionals to solicit information on: 1) the species that are most susceptible to blowdown, and 2) the site conditions that would cause blowdown to occur.

♦ Resurvey prior guideline monitoring sites to evaluate the extent of blowdown compared to what was originally noted for those sites in the field evaluations.

The first study is nearly complete, and analyses for the second and third studies will be complete by mid-spring 2005.

The findings from these studies will provide valuable information for use in revising the leave tree guideline recommendations or for reinforcing the existing recommendations.

3. Assessing the impact of skid trails on soil compaction and regeneration

A study to evaluate the impacts of skid trails on compaction and regeneration of equipment trafficking was completed in 2004. It evaluated the effects of skid trail activity on soil strength and compaction at three points in time: before harvest, immediately after harvest, and 36 months after harvest.

Findings from this research confirmed some existing guideline recommendations. However, the results also supported specific changes to guidelines for skid trails and for protection of forest soil productivity. Study results pointed to two recommendations:

♦ Eliminate the artificial distinctions between primary and secondary skid trails.

♦ Retain guideline recommendations to concentrate skidding to a few designated skid trails to minimize compaction on the harvest site.

New home development is an example of forestland conversion. Home construction in forested areas can cause fragmentation, which is the splitting of large, unbroken tracts of forest into separate, smaller parcels of forest habitat. *Photo courtesy of The Trust for Public Land*

What work has occurred in monitoring forestland uses?

Land uses that preclude timber production and harvest for long periods limit the options available to forest managers seeking to manage forests sustainably.

The process of developing forestland—by constructing housing, commercial buildings, and roads; or by creating pasture and cropland where forests once grew—reduces the land base available for producing timber, maintaining forest habitat and wildlife, and providing for forest-based recreation.

During 2004, satellite-based change detection methods were used to estimate the rate at which forestlands are being converted to nonforest purposes.

Based on data for a portion of the state for the four-year period from July 1999 to August 2003:

♦ About 3,600 acres of forest (0.02% of forestland in Minnesota) were developed per year.

♦ About 225 acres of forest (0.001% of all forestland) were converted to pasture or cropland per year.

For comparison, during the same period, about 111,000 acres (0.7% of all forestland) were harvested per year.

Rates of forestland conversion were very low (less than 0.1%) in most counties. The maximum rates of conversion observed were 0.17% of forestland to development (Olmsted County), 0.13% to development (Washington County), 0.17% to agricultural uses (Pipestone County), and 0.11% to agricultural uses (Jackson County).

A report to be issued in early 2005 will present these results in more detail, along with results of the analyses of additional land use data that are currently in progress.

Registering Public Concerns

What is the Public Concerns Registration Process?

The Public Concerns Registration Process (PCRP) was established in 1998 to accept "comments from the public on negligent timber harvesting and forest management practices."[11]

The 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. Since the program's inception in 1998, the PCRP has addressed a total of 20 concerns.

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.

Who benefits?

♦ **Citizens benefit** because the PCRP allows citizens to:

• Formally advise the MFRC of their concerns about forest management activities they see.

• Be a catalyst for mitigation of any problems on a site.

• 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.

What two citizen concerns did the MFRC investigate in 2004?

One concern, filed late in 2003 but investigated in early 2004, related to visual quality of a timber harvest and the filling of a wetland. Investigation found that Minnesota's Wetland Conservation Act standards for filling wetlands were not breached.

A second concern related to unintended trespassing that resulted from the lack of an onsite meeting prior to beginning to harvest. Minnesota's guidelines recommend that the forester and logger meet on the logging site before commencing the actual logging operation, and the involved parties are now aware of the mistake.

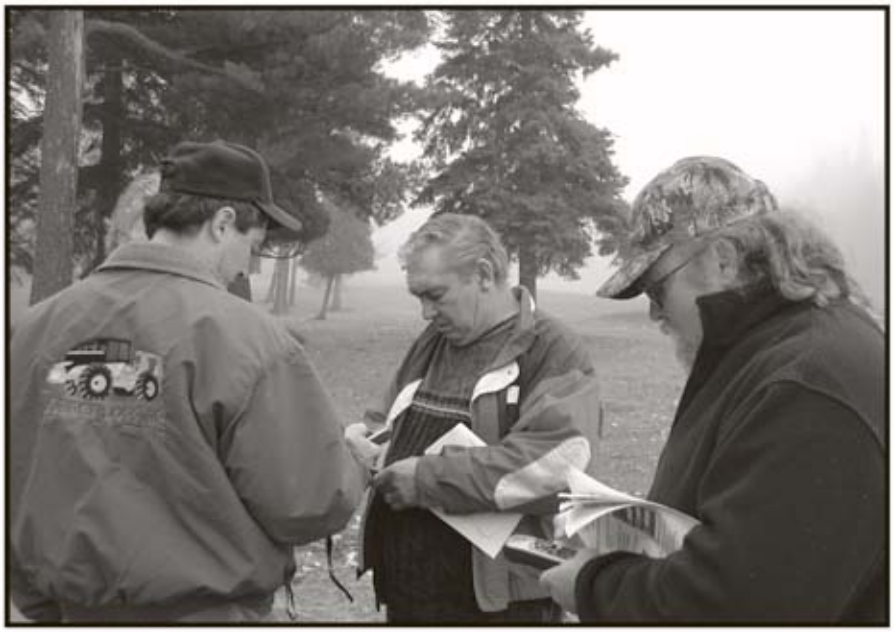
[11] Minnesota Statutes 89A.07, Subd. 5

Education

What is the Minnesota Logger Education Program?

The Minnesota Logger Education Program (MLEP) is a logger-initiated program that was 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 2004, MLEP achieved a membership of 419 logging business owners and associates. 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.



High tech tools, such as GPS (global positioning system) receivers, are increasingly being used in forestry. Above, loggers learn to use a GPS to calculate area and locate timber sales. *Photo courtesy of Minnesota Logger Education Program*

What continuing education did loggers receive in 2004?

In an ongoing effort to improve guideline implementation, the Minnesota Logger Education Program increased the number of workshops, as well as the variety of topics and training formats, provided to logging and natural resource professionals. Training was offered throughout the state, including Bemidji, Cass Lake, Cloquet, Deer River, Eveleth, Grand Rapids, Hibbing, International Falls, Kasson, Orr, and Silver Bay.

MLEP coordinated a total of 16 workshops and two logger conferences. In total, more than 982 participants attended MLEP training in 2004—more than a 20% increase over participation in 2003.

Specific topics included guideline implementation issues, an update on the Wetland Conservation Act Forestry Exemption, working with private landowners, utilizing GPS, biomass harvesting technology, and skilled truck driver training.

In addition, MLEP maintains a database that tracks the 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, AWAIR (workplace accident and injury reduction programs) and substance abuse company policies.

What is the Center for Continuing Education?

The Center for Continuing Education in the College of Natural Resources, University of Minnesota, was established in response to the SFRA of 1995 to provide innovative education programs for natural resource professionals by providing training on current research findings, new technologies, and state-of-the-art practices. (For more information about the Center, visit www.cnr.umn.edu/CCE.)

The Center continues to be an active partner in promoting excellence in natural resource management. It offers a broad range of technical and professional education programs for practicing natural resource managers in all sectors of the forestry profession.

MLEP and the Center have been coleaders in the planning and implementation of Minnesota's forest management guideline education programs since 1999.

What continuing education did natural resource professionals receive in 2004?

As in previous years, educational programming for natural resource professionals in 2004 addressed a wide variety of topics, including stand assessment, forest landscape goals, forest productivity modeling, GPS and GIS training, plant identification for endangered and threatened species, field skill training for tribal forestry technicians, and fire ecology.

The Minnesota Logger Education Program and the Center for Continuing Education have been co-leaders in the planning and implementation of Minnesota forest management guideline education programs since 1999.

♦ The first workshop introducing the new state field guide to forest site classification was held this year. *Introduction to Forest Site Classification: A Field Guide to Native Plant Communities for the Laurentian Mixed Forest* offered training to natural resource professionals outside the Minnesota DNR. More advanced training will begin in 2005, supported by a grant from the Blandin Foundation.

♦ In January 2004, the Center held the third iteration of the popular and successful symposium titled *Forest and Wildlife Research Review*. This program included research presentations on wildlife, spatial analysis, economics, silviculture, policy and management, and forest watersheds. The 2004 symposium was held for the second time at the University of Minnesota Duluth campus to accommodate more than 200 participants.

The MFRC continues to be a financial sponsor of this symposium.

♦ The Center coordinated 11 workshops and conferences during 2004.

♦ In addition to workshops and conferences, the Center continues to manage a database that tracks continuing education credits for the Minnesota Forest Stewardship Program. Plan preparers are required to complete 60 units of continuing education every three years to remain eligible to write plans for private woodland owners.

This new requirement is the first official qualification program for foresters in Minnesota and is receiving high participation due to the criteria established for participation in the recently passed Sustainable Forestry Incentive Act.[12]

[12] Minnesota Statutes, Chapter 290C

Sharing Forest Information

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 Web site, established in 1998, continues to provide information about forest resources to increasing numbers of people.

How has IIC changed?

To revitalize the IIC, the 2004 Minnesota Legislature passed a bill[12] that specifies the addition of two new members and identifies the dean of the University of Minnesota's College of Natural Resources as chair of the IIC. The MFRC is working closely with representatives from the College of Natural Resources to shape the reinvigorated IIC.

[12] Minnesota Statutes 89A.09

The MFRC helped fill an information gap by providing a good estimate of acres of statewide harvest on public lands.

What important information gap did the MFRC address in 2004?

In 2004, the MFRC's Information Management Committee (IMC) helped fill an information gap by providing a good estimate of acres of statewide harvest on public lands. Harvest levels are commonly reported on a volume basis rather than by acres affected.

The MFRC issued a report showing that slightly less than 1% of the approximately eight million acres of public land in Minnesota was sold for harvest in 2001. Similar data are not available for harvests on private lands because of the difficulty of collecting information from 140,000-plus private woodland owners.

Work is under way to obtain this data annually for public lands, so that the MFRC can better understand timber harvest trends and impacts. The final report is available on the MFRC Web site.

What changes did the MFRC make in addressing forest information management in 2004?

During 2004, the Council held a strategic planning session to set the direction for its activities over the next several years. To place more emphasis on policy initiatives, the MFRC revised the mission and composition of several of its committees, including the IMC, which was refocused to assist in achieving the MFRC's statutory mandate to *"..advise the Governor and federal, state, county, and local governments on sustainable forest resource policies and practices."*

Specifically, in 2005 the IMC will frame forest policy issues for the MFRC by compiling, analyzing, and disseminating information relevant to policy questions posed by the MFRC.

Outreach

How did outreach improve in 2004?

In 2004, the MFRC began to develop a communication plan that places more emphasis on outreach and communication, especially through the media.

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

♦ The MFRC Web site 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. Recent articles and citations include coverage of the MFRC's landscape planning program, discussion of MFRC-sponsored research efforts under way, and announcements of new MFRC members.

In 2004, the MFRC began to develop a communication plan that places more emphasis on outreach and communication.

How does the MFRC encourage public participation in forest resources programs?

MFRC and SFRA programs all require the 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 the MFRC Web site at www.frc.state.mn.us/Info/calendar.htm, or call 651-603-0109 for meeting dates.

❒ **Participate in landscape regional committees.** Contact Dave Miller for more information at 218-720-4256 or dmiller@nrri.umn.edu

❒ **Use the Timber Harvesting/Forest Management Guidelines.** Guidelines are available on MFRC's Web site at 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:

• College of Natural Resources Center for Continuing Education: Call 612-624-4986 or go to www.cnr.umn.edu/CCE/.

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

❒ **Access data regarding Minnesota's forest resources** from the Interagency Information Cooperative at www.iic.state.mn.us.

MFRC Documents Produced in 2004

All MFRC documents are available to interested individuals via the Internet. Visit the MFRC Web site at *www.frc.state.mn.us/InfoMFRCdocs.html*

MFRC overall

Sustainable Forest Resources Act Implementation in 2003: Minnesota Forest Resources Council Annual Report to the Governor and Legislature, January 2004

Strategic Directions Workshop Meeting notes, July 2004

Landscape Program

Forests in the West Central Landscape: Desired Outcomes, Goals and Strategies, March 2004

Recommended Desired Outcomes, Goals and Strategies: Northern Landscape Region, May 2004

Forest Resource Management in East Central Minnesota: A Landscape Perspective, June 2004

Site-Level Guidelines Program

Riparian Science Technical Committee: Process Definition, March 2004

MS thesis: The Boone Project: A Case Study of the Impacts of Timber Harvesting Activities on Soil Compaction and Aspen Regeneration in North Central Minnesota. Jeremy Fauskee, May 2004

Monitoring Program

Baseline Monitoring for Implementation of Timber Harvesting and Forest Management Guidelines on Public and Private Forest Land in Minnesota: Combined Report for 2000, 2001, and 2002

Public Concerns Registration Process

Public Concerns: Timber Harvesting and Forest Management Practices: Approved Process, March 2004

Information

Minnesota's Publicly-Owned Forestlands: Request for Information of Acres of Timber Sold in 2001

Acronyms

DNR	Department of Natural Resources
IIC	Interagency Information Cooperative
IMC	Information Management Committee
MLEP	Minnesota Logger Education Program
MFRC	Minnesota Forest Resources Council
PCRP	Public Concerns Registration Process
SFRA	Sustainable Forest Resources Act

Minnesota Forest Resources Council
2004 Annual Report to the Governor and Legislature on the Implementation of the Sustainable Forest Resources Act

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