

2013

Report to the Governor and Legislature on the Implementation of the Sustainable Forest Resources Act





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Cover photo: Tour of Erickson Timber mill, Baudette, MN. Pictured left to right: Bob Lintelmann, MFRC member, MN Indian Affairs Council; Bob Stine, MFRC Chair, (Associate Dean, College of Continuing Education, U of MN); Dana Carlson, Baudette Area Supervisor, DNR Forestry; Forrest Boe, MFRC member, Director, DNR Forestry; Rachael Nicoll, MFRC Information Specialist; Representative Roger Erickson, DFL, Baudette; Susan Solterman Audette, MFRC member, Environmental Organizations; Dale Erickson, MFRC member, Erickson Timber; Gene Merriam (partially visible), MFRC member, Environmental Organizations (former DNR Commissioner, former State Senator and State Representative, former MFRC Chair); Dave Thomas, NW Region Director, DNR Forestry; Dr. Alan Ek, MFRC member, Chair, Department of Forest Resources, U of MN

Minnesota Forest Resources Council 2013 Report

**to the Governor and Legislature on the Implementation
of the Sustainable Forest Resources Act**

Respectfully submitted by the Minnesota Forest Resources Council

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MFRC Membership

The governor appoints a chair and 15 members to the Minnesota Forest Resources Council (MFRC), and the Minnesota Indian Affairs Council appoints one member. The 17-member council includes representatives from the following interests:

- Commercial logging contractors
- Conservation organizations
- County land departments
- Environmental organizations (2)
- Forest products industry
- Game species management organizations
- Labor organizations
- Minnesota Department of Natural Resources
- Minnesota Indian Affairs Council
- Nonindustrial private forest landowners (2)
- Research and higher education
- Resort and tourism industry
- Secondary wood products manufacturers
- USDA Forest Service



This report fulfills requirements of Minnesota Statute 89A.03 Subd. 6., in which:

The council must report to the governor and to the legislative committees and divisions with jurisdiction over environment and natural resource policy and finance by February 1 of each year. The report must describe the progress and accomplishments made by the council during the preceding year.

The Sustainable Forest Resources Act (M.S. § 89A)

In 1995, the Sustainable Forest Resource Act (SFRA) created a policy framework for sustainable forestry to:

- Sustainably manage, use, and protect 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 managing the state's forest resources.
- Recognize and consider forest resource issues, concerns, and impacts at appropriate geographic scales.
- Recognize all perspectives regarding the management, use, and protection of the state's forest resources; establish processes and mechanisms that seek these perspectives; and incorporate them into planning and management.

Estimated cost to prepare this report (M.S. § 3.197): \$1,588 (staff time and printing). This report was printed in limited quantities. The electronic version is available on the Minnesota Forest Resources Council website at http://mn.gov/frc/documents/council/MFRC_2013_Report.pdf.

This report can be made available in other formats upon request.

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Photo: Harvest sites such as this are monitored for implementation of the voluntary forest management guidelines. Note things such as the leave tree clumps, retention of slash, and roads in the foreground and background that adhere to the guidelines.

An Overview of MFRC Accomplishments in 2013



Robert A. Stine, Chair, Minnesota Forest Resources Council

In January 2013, the MFRC published the legislatively mandated private forest management study and recommendations. The study analyzed the extent and importance of private forests as well as laws, programs, and other factors that affect private forestlands; and it made specific recommendations to the legislature regarding private forest management.

In 2013, the MFRC focused its efforts on publishing the revised forest management guidelines in user-friendly formats, including developing a field guide focused on those guidelines most commonly applied during timber harvesting operations for use by loggers, foresters, and landowners.

MFRC staff helped the Department of Natural Resources (DNR) secure funding from the Clean Water Legacy fund to conduct field monitoring of forest management practices at the watershed scale. Estimates of guideline implementation will be used in conjunction with disturbance metrics (e.g., timber harvest, fire, development) to assess potential risks of water quality impacts.

Over the past five years, the council has helped regional landscape committee partners obtain more than \$15 million in federal, private, and non-General Fund state grants to support their work. This included over \$2 million in federal grants to support the redesign of the DNR Forestry Private Forest Management (PFM) Program to integrate landscape stewardship approaches, as recommended by the USDA Forest Service State and Private Forestry.

The council continued preparation of the revised Northeast Landscape Plan to incorporate economic and climate change considerations that were not included in the original Northeast Landscape Plan that was completed in 2003.

In 2013, the MFRC continued to collaborate on research projects and proposals assessing guideline effectiveness, ecological impacts of woody biomass harvesting, and the ecological and hydrologic impacts of emerald ash borer in black ash wetlands.



Red (Norway) pine (*Pinus resinosa*): Minnesota's state tree

Forest Policy

The MFRC is a forum where forest stakeholders discuss and resolve issues regarding the management of Minnesota's forests. We have helped depoliticize forestry issues in Minnesota by facilitating collaboration and fostering the use of scientific information. We advise the governor, legislature, and public agencies on sustainable forest policies.

Accomplishments

Private Forest Management Study and Recommendations

In January 2013, the MFRC published the legislatively mandated private forestland management study and recommendations. The study analyzed the extent and importance of private forests as well as laws, programs, and other factors that affect private forestlands. The report also made specific recommendations that were developed around six themes: (1) improve and stabilize tax programs affecting private forestland; (2) increase efforts to reach landowners by improving outreach and technical assistance and continuing research regarding the most effective ways to communicate with landowners; (3) maintain but improve effectiveness and efficiency of financial incentives to landowners; (4) support the continued use of conservation easements, including consistent tax treatment of land under easements; (5) increase the service delivery capacity to private woodland owners; and (6) support landscape management programs. In taking a strategic approach to encourage the implementation of the report's recommendations, the MFRC developed a number of decision criteria to identify those of highest priority. The top priority recommendations are: (1) assertively market programs to encourage active and sustainable private forest management; (2) increase market opportunities for traditional forest products, renewable energy, and ecosystem services; and (3) encourage integrated service delivery between the broad range of agencies and organizations. The MFRC will continue engaging stakeholders and decision-makers to implement the recommendations.

Forest Health

In the past year, the MFRC has paid particular attention to those aspects of forest health relating to terrestrial invasive species, forest resource productivity, and wood quality. In regards to terrestrial invasive species, the MFRC has been working with stakeholders and agencies to heighten awareness and understanding of economic and ecological impacts of these species. The MFRC has worked to secure funding and partners to assess the state's capacity to address the impacts of terrestrial invasive species on our forests by identifying current and future threats, analyzing these threats, and making recommendations that position Minnesota to be better able to address them in a more strategic and integrated manner. Important questions identified by the MFRC include: Is the current agency response to terrestrial invasive species sufficient? What are the current funding trends and what are the needs? Are we investing in the right areas and what are the tradeoffs? What are the costs of various responses, including doing nothing? What could be done with additional funding? Why have some efforts been successful while others have failed?

The MFRC also has worked on issues regarding increasing forest resource productivity and wood quality. This has included a review and assessment of the effectiveness of past efforts and will culminate in the development of recommendations to increase forest resource productivity in Minnesota.

Competitiveness of the Forest Products Industry

With changing markets, loss of capacity, and emerging new products, the forest products industry is facing difficult challenges as well as potential opportunities. Building on past efforts, the MFRC has been asked by the DNR Commissioner to assess the current and future competitiveness of the state's forest products industry. Working with a stakeholder steering group and subject matter experts, the MFRC will identify the critical parameters that influence competition in forest products markets and assess how we compare with other states and countries. Key metrics may include wood fiber availability and price, environmental review, transportation, energy costs, wood and fiber quality, taxation, labor and construction costs, education and research, and forestland productivity. The MFRC will conduct this analysis through most of 2014, culminating in a report to decision-makers by December 1, 2014.

Voluntary Site-level Forest Management Guidelines

What We Do:
Sites

The MFRC maintains science-based, voluntary forest management guidelines to help loggers, foresters, and landowners sustain and conserve forest resources and protect wildlife habitat, soils, water quality, wetlands, aesthetics, and cultural resources. These guidelines are critical to the sustainability of forest resources and the forest industry in Minnesota. In 2013, the MFRC focused its efforts on publishing the revised forest management guidelines in user-friendly formats, evaluating development of implementation goals that will sustain forest resources, and the execution of a new approach to assess guideline implementation at the watershed scale.

Accomplishments

Publication of Revised Forest Management Guidelines

Changes to the forest management guidelines were adopted in 2012, following a multi-year process of stakeholder engagement and comprehensive assessment. In 2013, the council conducted the following activities to promote implementation of the revised guidelines:

- Updated the completed guidebook with the changes adopted during the revision process. This updated document is available in PDF format from the MFRC website.
- Developed a field guide focused on those guidelines most commonly applied during timber harvesting operations. Field guide content will be presented in a concise, user-friendly format, which will facilitate application in the field by loggers, managers, and landowners.
- Convened an ad hoc committee of forest stakeholders and professionals to evaluate development of implementation goals that will sustain forest resources. These goals will be used to target education and outreach to the topics and groups where implementation needs to be improved.
- Presented the revised guidelines at regional training sessions for DNR field staff and participated in delivery of training curricula.

The MFRC is committed to disseminating the revised guidelines in user-friendly formats, and continues to pursue sources of funding to support this effort including requests to LCCMR, private organizations, and the DNR.

Monitoring Guideline Implementation

The DNR conducts field monitoring of guideline implementation during logging operations to identify areas in need of improved implementation efforts through training and outreach. Staff worked collaboratively with the DNR to assist in accomplishing the following activities related to the monitoring program in 2013:

- Secured funding from the Clean Water Legacy fund to conduct field monitoring at the watershed scale. Estimates of guideline implementation will be used in conjunction with disturbance metrics (e.g., timber harvest, fire, development, etc.) to assess potential risks of water quality impacts.
- Developed a work plan and protocols for the modified and expanded program, including a methodology and approach for quantification of forest disturbance.
- Conducted analyses of leave tree characteristics measured during 2011 monitoring to assess if guidelines related to these characteristics were being adopted in operational settings.

Landscape-level Forest Resource Management

The MFRC Landscape Program supports regional and local level forums where partners collaborate to bring about desired future conditions in each of six major forested regions. Over the past five years, the council has helped landscape committee partners obtain over \$15 million in federal, private, and non-General Fund state grants to support their work.

Accomplishments

On-the-Ground Collaboration

The MFRC continued the development of landscape stewardship strategies and tools to support community-based forestry projects. The six MFRC Landscape Committees have over 30 multi-owner collaborative projects in progress. Council staff further advanced efforts to support the redesign of the DNR Private Forest Management (PFM) Program that integrates landscape stewardship approaches, as recommended by the USDA Forest Service State and Private Forestry. Partners on the regional committees developed two landscape stewardship plans, including one for the Root River watershed in the Southeast region and the Kettle River watershed in the East Central region.

Funding Development

- Continued the development of regional priorities to support funding and forest policy recommendations made by the MFRC to the governor and the legislature.
- Hired additional staff with federal funds to increase the coordination of projects in ways that support the concurrent implementation of the state Forest Action Plan with the council's landscape plans. This effort is helping partners on the regional committees more effectively leverage federal funding with the state's legacy funds.
- Supported the development of state and federal grant proposals to develop three additional landscape stewardship plans in priority areas identified by regional committees.

Promoting Resilient Forests

With federal, state, and university partners, the MFRC is facilitating discussions about climate change impacts on forests and information needs to promote resilient, sustainable forests and forest-based communities. The Northern Minnesota Climate Change Response Framework (CCRF) is a collaborative effort to identify cost-effective strategies to address climate change adaptation. The Northeast Planning Committee is integrating concepts from the CCRF into the revised landscape plan.

Northeast Plan Update

Work continued on the revised Northeast Landscape Plan, including preparation of seven technical documents to support the planning process and convening ten meetings of the planning committee. The revised plan will incorporate economic, ecological, and social research by the University of Minnesota and the USDA Forest Service to support the development of the next generation of landscape plans.



The MFRC Landscape Program organizes and facilitates collaboration among landowners, managers, and citizens in the six major forested “landscapes” or regions in the state.

With MFRC assistance, local partners are shaping future forests by coordinating their efforts at sustaining forested landscapes and the benefits they provide, recognizing both the importance of forest biodiversity and the forest-based economy and communities.

Research

What We Do: Research

The MFRC conducts and supports key research to improve forest management and the sustainable use of forest resources. In 2013, the MFRC continued to collaborate on research projects and proposals assessing guideline effectiveness and other topics related to sustainable forestry.

Accomplishments

Guideline Effectiveness Over Time

Council staff initiated a retrospective study in 2013 to assess guideline effectiveness over time. Sites that were previously monitored by the DNR over the past 15 years as part of their Guideline Monitoring program will be revisited to assess effects of key guidelines and harvest features, including roads and landings, wetland crossings, riparian management zones, and leave trees. Site selection and feature identification is in progress and will be completed this winter. Field measurements will be conducted in 2014.

Ecological Impacts of Woody Biomass Harvesting

Research continues on a collaborative study being led by Dr. Anthony D'Amato, involving University of Minnesota and USDA Forest Service researchers, that assesses the impacts of different levels of biomass removal on forest ecological functions. The project was initiated with funding from the MFRC, which was used by Dr. D'Amato and his research group to secure a \$2.7 million grant from the federal government to expand the research. In 2013, MFRC staff published a paper on the effects of biomass harvest on the soil environment and implications for maintenance of soil productivity. Other papers related to changes in soil nutrient pools and carbon dynamics are being prepared in collaboration with the project team.



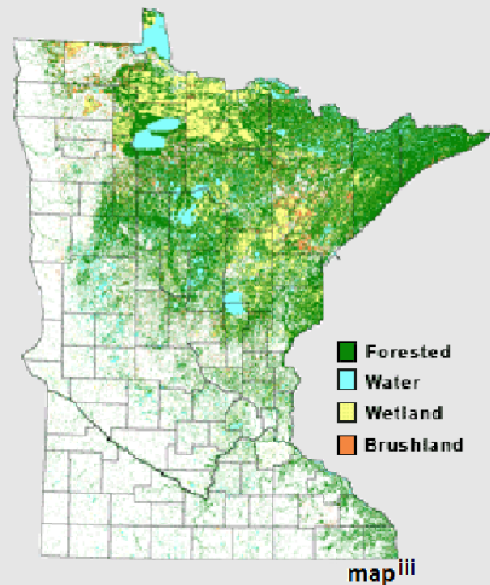
In 2013, a new biomass harvesting study was installed by the same group at nutrient-poor jack pine sites in western Minnesota with funding from the LCCMR. As part of this project, MFRC staff is leading a nutrient flux assessment to determine biomass harvest effects on soil productivity and is also evaluating soil water dynamics and relationships with plant community development and production.

Emerald Ash Borer

Research continues on a five-year project funded by the LCCMR to assess the ecological and hydrologic impacts of emerald ash borer in black ash wetlands and develop recommendations for management. The project is being conducted by researchers from the University of Minnesota Department of Forest Resources, Council staff, and the USDA Forest Service. Experimental treatments were applied in the winter of 2012. The project team is currently focused on assessing black ash physiology, the hydrologic response, and the success of planting alternative tree species following experimental cutting and girdling. Papers on the initial results are in preparation and will be available in 2014.

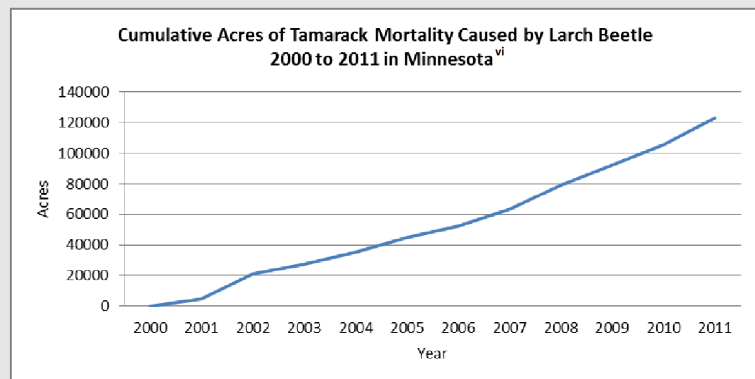
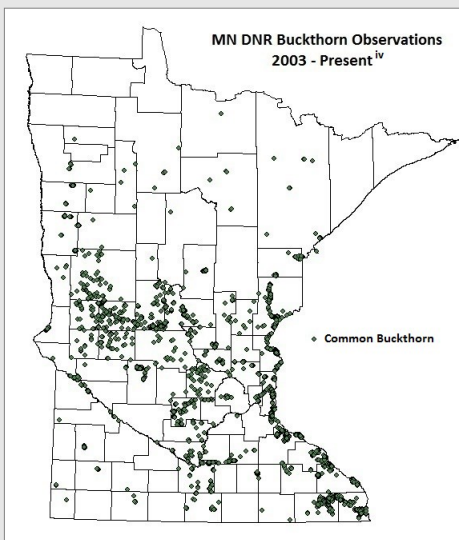
State of the Forest 2013

This is the first in an ongoing series of the State of the Forest Reports. This report provides a brief snapshot of forest conditions, trends, and possible futures related to top-tier MFRC prioritiesⁱ. The subject priorities are forest health, health of the forest products industry, and water quality, on the 17.4 million acres of forested land in the stateⁱⁱ.



Forest Health: *There are multiple, complex challenges to improving the health of Minnesota's forests as well as opportunities to address these challenges.*

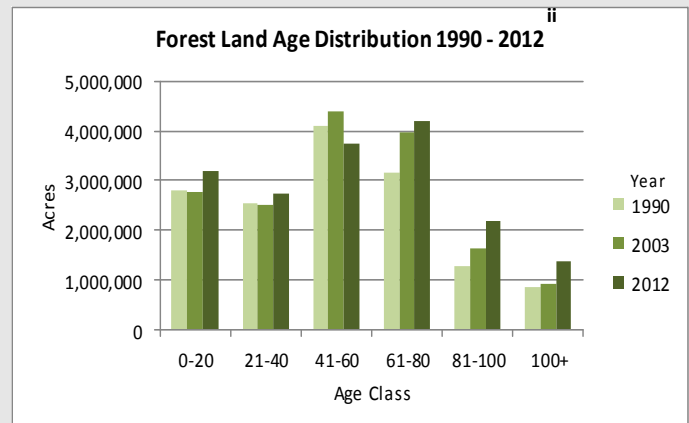
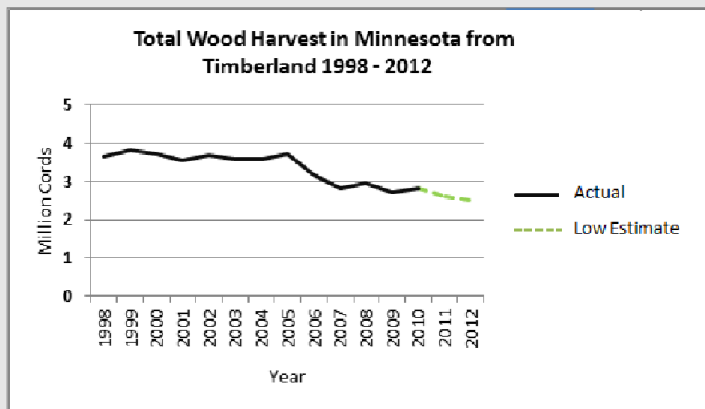
- Invasive buckthorn is still infrequent in northern Minnesota; action is possible to mitigate its impacts in this region.
- A multitude of forest pests cause widespread tree mortality each year. While this is natural, some native pests, such as the larch beetle, are increasing in severity due, in part, to the aging of the forest and possibly climate change.



- 2013 gypsy moth trapping results found a large increase in the population in Northeast Minnesota^v.
- There are approximately two new invasive forest pest introductions each year.
- No new counties are known to have been infested with the emerald ash borer since 2012; however, EAB populations are intensifying and spreading within the quarantined counties.^{vi} In 2013, EAB was confirmed in Superior, WI, six miles from Duluth, MN.

Health of the Forest Products Industry: *The economic downturn has had a major impact on Minnesota's forest products industry and timber harvesting.*

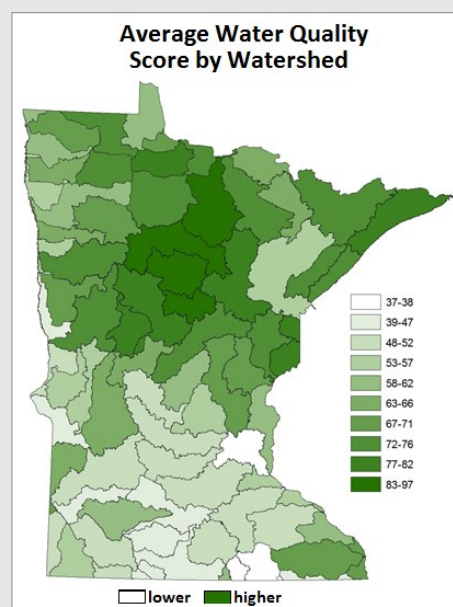
- The amount of forest land harvested for timber declined from 193,000 acres in 1996 to 138,000 acres in 2008, a 30 percent reduction.^{vii}
- Private landowners, the state, counties, federal lands, and industry supplied approximately 28, 26, 28, 7, and 11 percent of the Minnesota's forest harvest in 2009, respectively.^{viii}
- The supply of timber has shifted from a majority of private supply to a majority of public supply over the past decade. State and county entities have increased harvest levels, but private family forest harvest levels and overall harvest levels have declined substantially.
- The graphic below shows that the acreage of the youngest and oldest forest age classes are increasing. Timber harvest continues to be the key means for addressing desired age-class distributions.



Note: Shown in the figure to the left and based on analysis of mill consumption surveys, the 2012 harvest levels are within the 2.6 to 2.9 million cord range. In 2013, harvest levels may be slightly lower.^{ix} Timberland is forest land that is producing or capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment. Timberland excludes reserved forest lands.

Water Quality: *Forest cover and water quality are closely related.*

- The amount of forestland is generally correlated with higher water quality at the watershed scale. Maintaining and properly managing forests also creates other benefits such as enhanced wildlife habitat and outdoor recreation.
- The Water Quality Health Ranking (map to the right) is the average of three water quality indices: Non-point Sources, such as nutrient and sediment from agricultural or urban land use; Point Sources, such as effluent from manufacturing plants; and Minnesota Pollution Control Agency Water Quality Assessments.^x
- Retaining forest land and managing working forests to protect water quality is key to the maintenance of Minnesota's world-class water resources.



vii D'Amato, A.W., N.W. Bolton, C.R. Blinn, and A.R. Ek. (2009). Current status and long-term trends of silvicultural practices in Minnesota: a 2008 assessment. Staff Paper Series No. 205, St. Paul, MN: Department of Forest Resources, University of Minnesota.

viii Hibbard, C. (2013). Private Forestland Management Study and Recommendations. Report to the Minnesota Forest Resources Council. (PO-0113). St. Paul, MN.

ix Vanderschaaf, C., Vongroven, S., Jacobson, K. (2013). Forest Resources. State of Minnesota, Department of Natural Resources. St. Paul, MN.

x Watershed Health Assessment Framework. (2014). State of Minnesota, Department of Natural Resources. St. Paul, MN.

Participating in Sustainable Forestry

MFRC programs rely on individuals interested in forest resources in Minnesota. Their participation assures that a “broad array of perspectives regarding the management, use, and protection of the state’s forest resources” (M.S. § 89A.02) guide forest resource planning and management.

MFRC Activities

There are many ways for interested individuals to become involved:

- Attend MFRC meetings. A schedule of meetings is posted on the MFRC website: <http://mn.gov/frc/>. In 2014, MFRC meetings will be held on January 22, March 19, May 28, July 23, September 17-18, and November 12.
- Participate in regional landscape committees and projects. Contact Lindberg Ekola, our Landscape Program Manager, at ekola.mfrc@charter.net or 320-256-8300.
- Use the timber harvesting/forest management guidelines. Guidelines are available on our website.
- Use the Public Concerns Registration Process to notify the MFRC of specific timber harvests or other forest management practices that concern you (see below for more details).
- Attend forest resources educational programs provided by the Sustainable Forests Education Cooperative^{xi} or the Minnesota Logger Education Program^{xii}.

The Public Concerns Registration Process

The Public Concerns Registration Process (PCRP) allows citizens to inform landowners, foresters, and loggers of specific concerns regarding timber harvesting and forest management practices they see in Minnesota and learn more about forest management.

PCRP encourages sustainable management of Minnesota’s forests through education. It is not a regulatory or dispute resolution program. Instead, landowners, loggers, and foresters become more aware of public concerns regarding forest management, and citizens learn about guidelines for sustainable forest management.

Concerns registered with the Public Concerns Registration Process are confidential. To register a concern, call 1-888-234-3702 or submit one online at <http://mn.gov/frc/>

MFRC 2013 Publications

Reports are available online: <http://mn.gov/frc/>

Bundy, P. (2013). Report on the Status of Consulting Forestry in Minnesota: 2013. Report to the Minnesota Forest Resources Council. (CP-0113). St. Paul, MN.

Hibbard, C. (2013). Private Forestland Management Study and Recommendations. Report to the Minnesota Forest Resources Council. (PO-0113). St. Paul, MN.

MFRC. (2013). Public Concerns Registration Process: 2013 Annual Report. (CA-0713). St. Paul, MN.

MFRC. (2013). Sustaining Minnesota Forest Resources: Voluntary Site-Level Forest Management Guidelines (2013). St. Paul, MN.

MFRC. (2013). 2012 Annual Report to the Governor and Legislature. (CP-0113). St. Paul, MN.

Slesak, R.A. (2013). Soil Temperature following Logging-Debris Manipulation and Aspen Regrowth in Minnesota: Implications for Sampling Depth and Alteration of Soil Processes. Soil Science Society America Journal.77:1818-1824. doi:10.2136/sssaj2013.01.0022.

Thank You

MFRC programs are voluntary. Thank you to all the organizations and individuals who continue to help, support, and participate in the programs of the Sustainable Forest Resources Act and the Minnesota Forest Resources Council:

Associated Contract Loggers; Audubon Minnesota; Blandin Foundation; Citizens of Minnesota who participate in SFRA and MFRC programs; Dovetail Partners Inc.; Freshwater Society; Friends of the Boundary Waters Wilderness; Great River Greening; Institute for Agriculture and Trade Policy — Community Forestry Resource Center; Interagency Information Cooperative; Minnesota Association of County Land Commissioners; Minnesota Board of Water and Soil Resources; 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 Land Trust; Minnesota Logger Education Program; Minnesota Pollution Control Agency; Minnesota Power; Minnesota Resort and Campground Association; Minnesota Ruffed Grouse Society; Minnesota Timber Producers Association; National Council for Air and Stream Improvement; North Shore Forest Collaborative; Northern Institute of Applied Climate Science; Sierra Club — North Star Chapter; The Conservation Fund; The Nature Conservancy; The Trust for Public Land; University of Minnesota Twin Cities — Cloquet Forestry Center, Department of Forest Resources, Extension, Institute on the Environment, Sustainable Forests Education Cooperative; University of Minnesota Duluth — Natural Resources Research Institute; USDA Forest Service — Chippewa National Forest, Superior National Forest, Northern Research Station and State and Private Forestry; USDA Natural Resources Conservation Service; USDI Fish and Wildlife Service; ; Wood Fiber Employees Joint Legislative Council



The Minnesota Forest Resources Council was established by the Sustainable Forest Resources Act (SFRA) of 1995 to promote sustainable management of Minnesota's forests.

To find out more about the council, visit our web site:

<http://mn.gov/frc/>

or call

651-603-6761

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