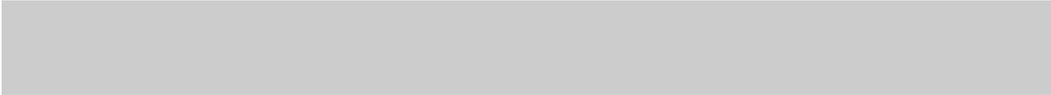

Sustaining
Minnesota Forest Resources:
*Voluntary Site-Level
Forest Management Guidelines
for Landowners,
Loggers and Resource Managers*





The Minnesota Forest Resources Council (MFRC) was charged under the Sustainable Forest Resources Act of 1995 with coordinating the development of site-level timber harvesting and forest management guidelines. In response to this mandate, the MFRC convened four multi-disciplinary technical teams to develop guidelines for riparian zone management, wildlife habitat, historic/cultural resources and forest soil productivity. The technical team guidelines were developed through consensus over a two-year period and then integrated to produce a single set of guidelines.

Funding for guideline development was provided by a General Fund appropriation from the Minnesota Legislature to the Minnesota Forest Resources Council.

Reproduction of this guidebook is encouraged. Any modification, however, must first be approved by the Minnesota Forest Resources Council.

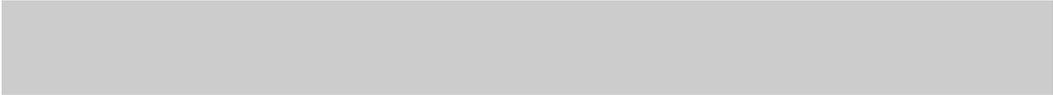
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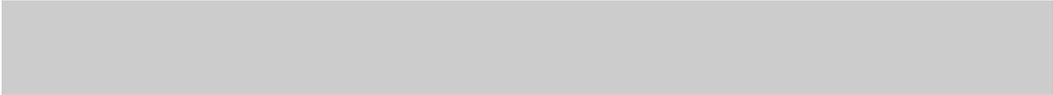
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(continued on next page)



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The Minnesota Forest Resources Council
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for his tireless commitment, leadership and unfailing humor
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“So let it be written; so let it be done.”





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INTRODUCTION

Sustainability means meeting the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable forestry is a proactive form of management that provides for the multiple uses of the forest by balancing a diversity of both present and future needs. It is a process of informed decision-making that takes into account resource needs, landowner objectives, site capabilities, existing regulations, economics and the best information available at any given time.

Recognizing the challenges that sustainable forest management represents, this guidebook was developed as a collaborative statewide effort involving a broad spectrum of people who value forested lands in Minnesota. It provides a set of integrated guidelines that address projected impacts on forest resources as identified in the 1994 Generic Environmental Impact Statement Study on Timber Harvesting and Forest Management in Minnesota (GEIS).

These voluntary site-level forest management guidelines provide valuable decision-making tools for landowners, resource managers and loggers throughout Minnesota, who share an ongoing responsibility to make balanced, informed decisions about forest use, forest management and forest sustainability.

A Menu, Not a Mandate

These guidelines are intended to serve more as a menu, not a must-do checklist. They provide a diversity of options for landowners, resource managers and loggers seeking to maintain forest sustainability.

Site-level resource management decisions are based on many different factors, including resource needs, landowner objectives, site capabilities, existing regulations, economics and the best information available at any given time. The intent of having multiple guidelines is to provide decision-makers with as much flexibility—and as much choice—as possible in taking steps to effectively balance forest management needs and resource sustainability.

2 Introduction

No one will apply all of the guidelines related to a particular activity. Instead, the landowner, resource manager or logger will consider many different factors in determining which combination of guidelines provides the best “fit” for a particular site at a particular time.

Because the guidebook has been designed for a variety of audiences, some landowners may find it to be more technical than they need, and some resource managers may find it to be more basic than they might prefer. For all readers, though, the individual guidelines—as well as their format—were designed to be as clear, concise and user-friendly as possible:

- ❑ Part 1 explains the purpose and value of integrated forest management guidelines.
- ❑ Part 2 describes selected components of a sustainable forest.
- ❑ Part 3 represents the hands-on, what-to-do part of the guidebook, focusing on two related groups of guidelines:
 - General guidelines: Guidelines common to many forest management activities
 - Activity-specific guidelines: Guidelines applicable to particular forest management activities
- ❑ Part 4 includes additional resources: the Resource Directory, the Glossary and the Appendices.

The guidebook recognizes that various users will seek out different kinds of information related to the guidelines. Landowners, resource managers, loggers, contractors and equipment operators will use the guidebook in different ways:

- ❑ Some users will focus mainly on the guidelines themselves—the “what to do” (Parts 3 and 4)—while others will find the “why do it” (Parts 1 and 2) to be equally as valuable.
- ❑ Some will read the guidebook cover to cover; others may regularly refer to just a few particular sections.

Here's a quick overview of each of the four parts of the guidebook:

Part 1: The Purpose of Integrated Guidelines

- The Forest
- A Framework of Balance and Stewardship
- A Diversity of Needs
- The Concept of Integrated Guidelines
- Who Will Use the Guidelines
- Factors That May Affect Implementation
- Recognizing the Need for Flexibility
- What the Guidelines Are—and What They Are Not

Part 2: Selected Components of a Sustainable Forest

A look at six selected components of a healthy forest ecosystem, describing the value and benefit of the following forest resources to a balanced, sustainable forest community:

- Cultural resources
- Forest soil productivity
- Riparian areas
- Visual quality
- Water quality and wetlands
- Wildlife habitat

Part 3: The Integrated Guidelines

- The Purpose of Integrated Guidelines
- How the Guidelines Will Help Sustain Forest Resources
- General Guidelines Common to Many Forest Management Activities

4 *Introduction*

Activity-Specific Guidelines Applicable to Particular Forest Management Activities:

- Forest road construction and maintenance
- Timber harvesting
- Mechanical site preparation
- Pesticide use
- Reforestation
- Timber stand improvement
- Fire management
- Forest recreation management

Part 4: Additional Resources

- Resource Directory: Sources of additional information and assistance
- Glossary: Detailed definitions of terms used throughout the guidebook
- Appendices

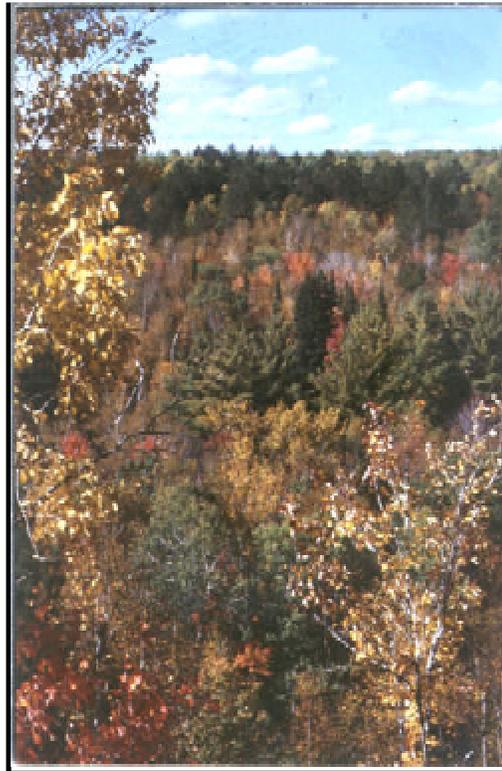
PART 1

THE PURPOSE OF INTEGRATED GUIDELINES

The Forest

The forest is a diverse and complex community that includes plants, animals, microorganisms and people—along with the surrounding physical environment they inhabit, in which trees are the dominant life form.

The forest is a diverse and complex community, in which trees are the dominant life form.
Photo courtesy of Minnesota DNR



2 Purpose of Guidelines

Sustaining forest resources for future generations depends on balancing a diversity of social, economic and environmental objectives, including:

- Production of timber for wood and paper products
- Providing recreational opportunities
- Protection of cultural resources
- Enhancement of scenic beauty
- Improvement of wildlife habitat
- Conservation of water and soil resources
- Maintaining the viability of rural communities



Sustaining forest resources for future generations depends on balancing a diversity of social, economic and environmental objectives, including production of timber for wood and paper products. *Photos courtesy of Minnesota DNR (above) and Potlatch Corporation (below)*



Harvesting timber stands can contribute to the long-term health, productivity and sustainability of valuable forest resources. *Photo courtesy of Minnesota DNR*

A Framework of Balance and Stewardship

Forest management can contribute to the long-term sustainability of forested lands in Minnesota. Harvesting timber stands, prescribed burning, the use of pesticides, and the ongoing regeneration of forests contribute to the long-term health, productivity and sustainability of valuable forest resources.

Like many other human activities, from building houses to growing crops to living on a lake, forest management activities also have the potential to adversely affect site-level forest functions and values. As the needs and desires of society impose ever-increasing demands on forest resources, the responsibility to meet those increased demands without compromising the overall sustainability of forest resources becomes more challenging. Within a sound stewardship framework, however, forest management can occur at the site level with no adverse effects on the sustainability of the entire forest ecosystem.

A Diversity of Needs

Sustainability means meeting the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable forestry is a proactive form of management that provides for the multiple uses of the forest by balancing a diversity of both present and future needs. It is a process of informed decision-making that takes into account resource needs, landowner objectives, site capabilities, existing regulations, economics and the best information available at any given time.

Those concerned about forest management have long recognized the challenge of balancing social, economic and environmental objectives and implications. They also recognize the complex relationship between forest management practices and the long-term sustainability of our forests.

The Concept of Integrated Guidelines

Integrated resource management approaches, comprehensive planning, and recommended practices and guidelines are not new ideas. So what IS new? Three things:

- The concept of one set of integrated guidelines to support the sustainability of many different resources within forest communities
- The recognition that guidelines should be designed to accommodate a wide range of resource needs, landowner objectives and site conditions
- The idea of a broad-based, collaborative approach to developing user-friendly guidelines applicable to forests throughout Minnesota

To address the concern that some components of the forest are sensitive to the impacts of increasing uses, the Sustainable Forest Resources Act (SFRA) of 1995 directed the Minnesota Forest Resources Council to coordinate development of an integrated set of voluntary site-level timber harvesting and forest management guidelines.

Integrated guidelines recognize the forest as a community of related resources, rather than a collection of separate resources. *Photo courtesy of Minnesota Department of Tourism*



This concept of integrated guidelines recognizes the forest as a community of related resources, rather than a collection of separate resources. Integrated guidelines reflect the forest ecosystem that they are designed to help sustain. For information about the guideline development process, see *Appendix A: How the Guidelines Were Developed*.

Who Will Use the Guidelines

These forest management guidelines have been developed for use by forest landowners, resource managers, loggers, contractors and equipment operators, who share a concern for balancing forest management activities and the long-term sustainability of forest resources. Although many individuals may participate in managing a particular site, final decisions regarding guideline implementation lie with the landowner.

These guidelines were designed to help landowners, resource managers and loggers determine how to protect the functions and values of forest resources during forest management activities. They do not provide advice on whether to manage or which management activities are needed.

Factors That May Affect Implementation

These guidelines are just that—guidelines. Voluntary implementation of these guidelines may be affected by a number of factors, including:

- Federal, state and local regulations
- Economic considerations
- Site characteristics
- Landowner objectives
- Perceived benefits
- Effectiveness of information/education efforts

Recognizing the Need for Flexibility

Because no single set of guidelines can effectively address the concerns of all situations and all areas, guidelines need to be flexible enough to address site-specific conditions. This flexibility also allows guidelines to be modified to balance resource needs, landowner objectives and site capabilities—as long as modified approaches still achieve the same management goals.

Besides being flexible, these guidelines may evolve and change over time. Guideline revisions may occur in the future to reflect new information, new perspectives or new priorities.



What The Guidelines Are...

- ❑ The guidelines are designed to be flexible, recognizing that both site conditions and landowner objectives vary. Determining the most appropriate guidelines for implementation on a particular site depends on the informed judgment of the landowner, resource manager or logger responsible for that site.
- ❑ It may be possible to implement several guidelines simultaneously in some instances. For example, trees left to protect cultural resources may also satisfy most guidelines for wildlife, as well as apparent harvest size guidelines for visual quality.



- ❑ Implementation of the guidelines is voluntary.
- ❑ The guidelines are designed to help forest landowners, resource managers and loggers meet two goals:
 - Conduct forest management activities while addressing the continued long-term sustainability of diverse forest resources.
 - Promote or enhance the functions and values of water and soil resources, riparian areas, wildlife habitat, visual quality and cultural resources.
- ❑ The guidelines represent practical and sound practices based on the best available scientific information.
- ❑ The guidelines are designed to assist with site-level forest management. They are not designed to provide broad-based landscape direction.

8 Purpose of Guidelines

...and What They Are *Not*

- ❑ The guidelines are not a substitute for a resource management plan. They are intended to support implementation of a plan once it is in place.
- ❑ The guidelines are not intended to replace any existing rules or regulations.
- ❑ The guidelines are not intended as a substitute for obtaining professional assistance as needed to achieve management objectives or meet appropriate engineering standards. They are guidelines, not construction standards or engineering specifications.
- ❑ The guidelines are not designed to help determine *whether* a particular forest management activity should or should not occur. They are designed instead to provide guidance in *how* to implement a particular forest management activity.
- ❑ The guidelines are not intended to address *all* forest management activities and *all* forest resources. They address major forest management activities as they relate to selected components of a healthy forest.
- ❑ The guidelines do not cover all management options related to a particular forest resource. Wildlife guidelines, for example, provide the essentials to address site-level habitat issues, but they do not list all possible techniques for improving forest habitats or for managing particular species.



