

Table of Contents

List of Tables, Figures, Charts, and Maps	iii
Brief Description of the Planning Area	vi
Subsection Forest Resource Management Planning (SFRMP)	
Introduction	viii
Goals for the Planning Effort	viii
Process	ix
Relationship of SFRMP to Other DNR Planning Efforts	x
Application of Statewide Guidelines	xiv
Grouping of DNR Direction Documents by 3-Level Hierarchy	xv
Public Involvement	xix
SFRMP Process Table	xx
Issue Identification	xxi
Public Review	xxi
Preliminary Issues	xxii
Assessment Chapters	
1. Land Use and Cover	1.1
2. Land Ownership and Administration	2.1
3. Forest Composition and Structure	3.1
4. Timber Harvest	4.1
5. Ecological Information	5.1
6. Stand Damage and Mortality	6.1
7. Wildlife Species Status and Trends	7.1
Appendices	
A. Background on DNR Forest Inventory and Data Currency	A.2
B. Ecological Classification System	A.5
C. Glossary	A.9
D. Acronyms	A.33

Note: A basic set of large format color maps showing subsection characteristics is available for viewing at DNR Grand Rapids Region Forestry Office and the DNR Central Office (Forestry, 5th Floor).

This report is available on the DNR Web site at:

<http://www.dnr.state.mn.us/forestry/subsection/north4/preliminary.html>

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Lists of Tables, Figures, Charts, and Maps

Tables*

<i>Table i</i> <i>Public Involvement and Process Timelines</i>	xxii
<i>Table 1.1</i> <i>Minnesota GAP Land Cover Classification System</i>	1.3
<i>Table 1.2</i> <i>North-4 Subsections GAP Covertypes Acres and Percentage</i>	1.7
<i>Table 2.1</i> <i>North-4 Subsections...Land Ownership by Subsections</i>	2.2
<i>Table 3.1</i> <i>North-4 Subsections...Age Class</i>	3.7
<i>Table 3.3 slm</i> <i>Designated Old Growth Acres</i>	3.26
<i>Table 3.3 tl</i> <i>Designated Old Growth Acres</i>	3.26
<i>Table 3.3 nu</i> <i>Designated Old Growth Acres</i>	3.27
<i>Table 3.3 lvu</i> <i>Designated Old Growth Acres</i>	3.27
<i>Table 3.4</i> <i>North-4 Subsections</i> <i>Historical Forest Composition</i>	3.28
<i>Table 4.1</i> <i>North-4 Subsections.. Acres of Timber Sold FY 1197-2006</i>	4.3
<i>Table 5.1</i> <i>North-4 Subsections</i> <i>Minnesota Listed Species – Animals</i>	5.17
<i>Table 5.2</i> <i>North-4 Subsections</i> <i>Minnesota Listed Species – Plants</i>	5.18
<i>Table 5.3</i> <i>North-4 Subsections</i> <i>Minnesota Listed Species – “NONs” Animals</i>	5.20
<i>Table 5.4</i> <i>North-4 Subsections</i> <i>Minnesota Listed Species – “NONs” Plants</i>	5.21
<i>Table 5.5</i> <i>North-4 Subsections</i> <i>MCBS Status</i>	5.28
<i>Table 6.3</i> <i>Insects/Diseases Causing Quality Reductions or Mortality by Cover Type</i>	6.5
<i>Table 6.4</i> <i>Occurrence of Rust Fungi on Jack Pine in North-4 Subsection</i>	6.19
<i>Table 7.1</i> <i>North-4 Subsections</i> <i>Terrestrial, Vertebrate Species List</i>	7.2
<i>Table 7.2</i> <i>North-4 Subsections</i> <i>Mammal habitat relationships by Minnesota Gap Analysis</i> <i>Project land cover type</i>	7.12
<i>Table 7.3</i> <i>North-4 Subsections</i> <i>Bird habitat relationships by Minnesota Gap Analysis</i> <i>Project land cover type</i>	7.15
<i>Table 7.4</i> <i>North-4 Subsections</i> ... <i>Amphibian and Reptile habitat relationships by</i> <i>Minnesota Gap Analysis Project land cover type</i>	7.31

Figures*

<i>Figure i</i> <i>Grouping of DNR Direction documents by 3-Level Hierarchy</i>	xv
<i>Figure ii</i> <i>Public Involvement Opportunities</i>	xix

Charts*

<i>Chart i</i> <i>North-4 Subsections</i> <i>Land Ownership N-4 Subsections</i>	vii
<i>Chart 1.1 slm</i> <i>Land Use and Cover St. Louis Moraines Subsection</i>	1.5
<i>Chart 1.1 tl</i> <i>Land Use and Cover Tamarack Lowlands Subsection</i>	1.5
<i>Chart 1.1nu</i> <i>Land Use and Cover Nashwauk Uplands Subsection</i>	1.6
<i>Chart 1.1lvu</i> <i>Land Use and Cover Littlefork-Vermilion Uplands Subs</i>	1.6

Chart 2.1 slm.....Land Ownership.....2.3
 Chart 2.1 tl.....Land Ownership2.3
 Chart 2.1 nu.....Land Ownership.....2.4
 Chart 2.1 lvu.....Land Ownership2.4

Chart 3.2.1 North-4 Subsections.....All Timberland Cover Types-2007 Age Class Dist.....3.10
 Chart 3.2.2 North-4 Subsections.....Ash/Lowland Hardwoods-2007 Age Class Distribution.....3.11
 Chart 3.2.3 North-4 Subsections.....Aspen/Balm of Gilead 2007 Age Class
 Dist.....3.12
 Chart 3.2.4 North-4 Subsections.....Balsam Fir 2007 Age Class Distribution..... 3.13
 Chart 3.2.5 North-4 Subsections.....Birch 2007 Age Class Distribution3.14
 Chart 3.2.6 North-4 Subsections.....Black Spruce Upland 2007 Age Class Distribution3.15
 Chart 3.2.7 North-4 Subsections.....Black Spruce Lowland 2007 Age Class Distribution3.16
 Chart 3.2.8 North-4 Subsections.....Jack Pine 2007 Age Class Distribution-3.17
 Chart 3.2.9 North-4 Subsections.....Northern White Cedar 2007 Age Class Distribution.....3.18
 Chart 3.2.10 North-4 Subsections.....Northern Hardwoods/ 2007 Age Class Distribution3.19
 Chart 3.2.11 North-4 Subsections.....Red Pine/ 2007 Age Class Distribution 3.20
 Chart 3.2.12 North-4 Subsections.....Oak 2007 Age Class Distribution3.21
 Chart 3.2.13 North-4 Subsections.....Tamarack/ 2007 Age Class Distribution3.22
 Chart 3.2.14 North-4 Subsections.....White Pine 2007 Age Class Distribution3.23
 Chart 3.2.15 North-4 Subsections.....White Spruce 2007 Age Class Distribution3.24

Chart 4.1 North-4 Subsections.....Acres of Timber Sold FY 1997-20064.3
 Chart 4.2 North-4 Subsections..... Timber Volume by FY 1997-2006.....4.4
 Chart 4.3 North-4 Subsections..... Value of Timber by FY 1997-20064.5
 Chart 4.4 North-4 Subsections..... Average Price of Timber by FY 1997-2006.....4.6
 Chart 4.5 North-4 Subsections..... Value of Timber by Species FY 1997-2006.....4.7

Chart 6.4..... Spruce Budworm FY 1954-2006..... 6.23

Maps*

Map i North-4 Subsections.....Generalized Forest Cover Types vi
 Map 1.2 North-4 Subsections.....GAP Land Cover Types..... 1.7
 Map 2.1 North-4 Subsections.....Land Ownership 2.5
 Map 2.2 North-4 Subsections.....Management Units 2.6

Map 3.1 slm.....Generalized Cover Types on Lands Admin by DNR 3.3
 Map 3.1 tl.....Generalized Cover Types on Lands Admin by DNR 3.4
 Map 3.1 nu.....Generalized Cover Types on Lands Admin by DNR 3.5
 Map 3.1 lvu.....Generalized Cover Types on Lands Admin by DNR..... 3.6

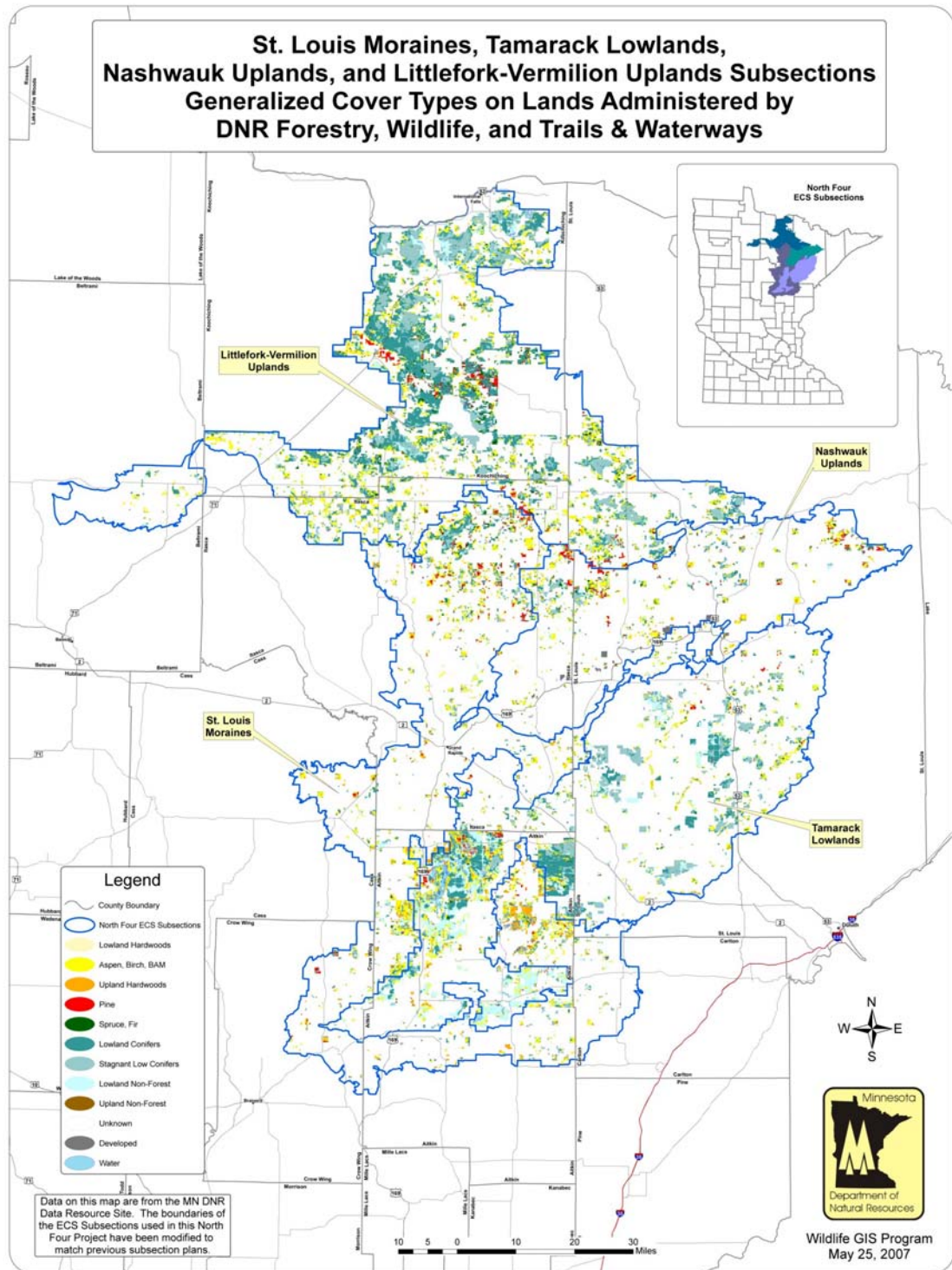
Map 6.4a.....Forest Tent Caterpillar Defoliation-2002 6.8
 Map 6.4b.....Risk Assessment for Mortality Caused by Gypsy Moth 6.12
 Map 6.4c.....Larch Beetle Mortality 2001-2006 6.15
 Map 6.4d.....Jack Pine Budworm Defoliation in NE MN..... 6.17
 Map 6.4e..... White Pine Blister Rust – Hazard Zone 6.20
 Map 6.4f.....Spruce Budworm 1954-2006 6.23

*For all tables, figures, charts, and maps:

North-4 Subsections – St. Louis Moraines, Tamarack Lowlands, Nashwauk Uplands, and Littlefork-Vermilion Uplands

slm -St. Louis Moraines; tl -Tamarack Lowlands; nu -Nashwauk Uplands; lvu -Littlefork-Vermilion Uplands

Map i—North-4 Subsections Generalized Forest Cover Types on DNR-Administered Lands Covered by This Plan



Brief Description of the Planning Area

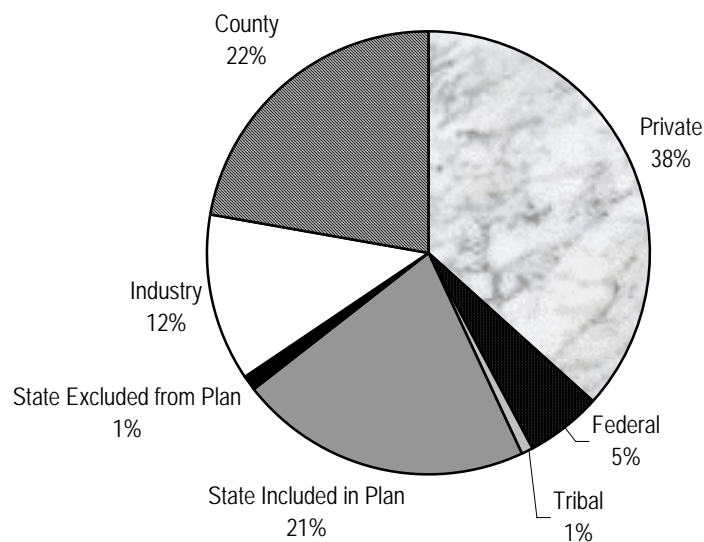
This Subsection Forest Resource Management Plan (SFRMP) process considers state forest lands administered by the Department of Natural Resources (DNR), Divisions of Forestry, Trails and Waterways, Fish and Wildlife – Wildlife Section in the *North-4 Subsections* subsection landscape units (*St. Louis Moraines, Tamarack Lowlands, Nashwauk Uplands, and Littlefork-Vermilion Uplands*). These four units cover approximately 5.5 million acres in an area from near Tower on the east to Blackduck on the west, and from Aitkin on the south to International Falls on the north. (See *Map i—slm, Map i—tl, Map i—nu, and Map i—lvu.*) For more detailed land descriptions, refer to chapters 1 through 3.

Recreation, forestry, and tourism are major uses of land in these four subsections. Public agencies administer 50 percent of the land with the state portion being 1.24 million acres or 22 percent. Approximately 1.17 million acres of the state land is timberland that will be considered for wood products production and other resource management objectives in this plan. Other state lands totaling 70,000 acres include State Parks and Scientific and Natural Areas, which will not be considered under this plan.

In addition, the federal government owns 300,000 acres (5.5 percent) that are managed by the U.S. Forest Service as part of the Chippewa and Superior National Forests. Aitkin, Crow Wing, Cass, Itasca, Beltrami, Koochiching, St. Louis, and Carlton counties own and manage 1.23 million acres (22 percent). Private owners control 2.7 million acres (49 percent). Of that, industry owns 700,000 acres. For more details about land ownership, refer to Chapter 2.

Chart i
Land Ownership
North-4 Subsections Total
 5,522,474 Acres

**St. Louis Moraines / Tamarack Lowlands /
 Nashwauk Uplands / Littlefork-Vermilion Uplands**



Source: 1976 1998 Minnesota DNR GAP Stewardship <Updated 2007>

Based on the Gap Analysis Program (GAP) classification completed by the DNR Division of Forestry using satellite imagery of all lands in the subsection, 66 percent of the land area (non-water) is covered by forest. Aspen and birch cover types comprise 49 percent of this forest. 3 percent of the subsection land area is cropland. Based on the DNR forest inventory of timberland that will be considered in this plan; aspen, birch, and balm of Gilead comprise 271,000 acres and non-forested lowlands comprise 225,000 acres. For details about cover types, refer to Chapter 3.

In most cases, assessment information is provided for the four subsections combined, as well as for each individually.

Subsection Forest Resource Management Planning

Introduction

For many years, the Minnesota Department of Natural Resources (DNR) directed timber harvesting on lands it administered through five- to 10-year forest resource management plans developed for each of its administrative forestry areas.

Opportunities for public involvement were limited in the development and review of these timber management plans.

In response to growing public interest in DNR timber management planning, the DNR Subsection Forest Resource Management Plan (SFRMP) process was designed to provide a more standardized, formal process and opportunities for increased public involvement. In addition, it is based at the subsection level of the DNR's ecological classification system (ECS) rather than DNR administrative areas as in the past (i.e., DNR area forestry boundaries).

The SFRMP process is divided into two phases. In Phase I, the subsection team will identify important forest resource management *issues* that need to be addressed in the subsection plan and *assess* the current forest resource conditions in the subsection. In Phase II, the subsection team will develop recommended strategies to address these issues and help shape the desired future forest composition goals and stand-selection criteria. The DNR will seek public input during each phase.

Currently, during Phase I, the DNR seeks public input on the issues and assessments contained in this Preliminary Issues and Assessment document.

Goals for the Planning Effort

SFRMP will constitute DNR planning for *vegetation management* on state forest lands administered in the subsections by the Divisions of Forestry, Fish and Wildlife, and Trails and Waterways. The focus of this effort will be:

- **Identifying a desired future forest composition (DFFC)** for 50 years or more. Composition could include the amount of various cover types, age-class distribution of cover types, and their geographic distribution across the subsection. The desired future forest composition goals for state forest lands in the subsections will be guided by assessment information, key issues, general future direction in response to issues, and strategies to implement the general future direction.
- **Identifying forest stands to be treated over the next 10-year period.** SFRMPs will identify forest stands on DNR Forestry- and Wildlife-administered lands that are proposed for treatment (e.g., harvest, thinning, regeneration, and re-inventory) over the 10-year planning period. Forest stands will be selected using criteria developed to begin moving DNR forest lands toward the long-term DFFC goals. Examples of possible criteria include stand age and location, soils, site productivity, and size, number, and species of trees. Many decisions and considerations go into developing these criteria and the list of stands proposed for treatment. Examples include:

- 1) identifying areas to be managed as older forest or extended rotation forest (ERF),
- 2) identifying areas to be managed at normal rotation age,
- 3) identifying areas for various sizes of patch management,
- 4) management of riparian areas and visually sensitive travel corridors,
- 5) age and cover-type distributions, and 6) regeneration, thinning, and prescribed burning needs.

The DNR will select management activities (including “no action”) that best move the forest landscape toward the DFFC goals for state forest lands.

Consistent with state policy (Minnesota Statutes 89A), the SFRMP process will pursue the sustainable management, use, and protection of the state’s forest resources to achieve the state’s economic, environmental, and social goals.

Process

The objectives of the DNR SFRMP process are:

- To effectively inform and involve the public and stakeholders.
- To complete the process in each ecological classification system (ECS) subsection within a reasonable amount of time (the target is to complete a SFRMP plan in 12 months).
- To conduct a process that is reasonable and feasible within current staffing levels and workloads.
- To develop plans that are credible to most audiences and enable good forest management.

Experience, new information, new issues, changing conditions, and the desire to broaden the focus of SFRMP in the future will demand a flexible and adaptable process. The plans will need to be flexible to reflect changing conditions. The SFRMP process will provide for annual reviews by DNR planning teams for the purpose of monitoring implementation and determining whether plans need to be updated to respond to unforeseen substantial changes in forest conditions.

DNR subsection teams will include staff from the DNR Divisions of Forestry, Fish and Wildlife, and Ecological Resources and other agency staff as needed. These subsection teams will have primary responsibility for the work and decision-making involved in crafting subsection plans.

The subsection team will invite managers of adjacent county, federal, tribal, and industrial forest lands to provide information about the condition of their forest lands and future management direction. This information will help the DNR make better decisions on the forest lands it administers. In the North-4 Subsections, the goals, strategies, and coordination efforts of the Minnesota Forest Resources Council (MFRC) Northeast, North Central, and Northern Landscape Committees will be considered and/or incorporated into the SFRMP.

In the first phase of the SFRMP process, the subsection team will 1) identify important forest resource management issues that will need to be addressed in the subsection plan and 2) develop an assessment of the current forest resource conditions in the subsection. The assessment document developed by the team will consider at least eight basic elements (i.e., chapters in this document):

- Land use and cover
- Administration and ownership
- Forest composition and structure
- Historic harvest and silvicultural practices
- Ecological information
- Forest insects and disease
- Wildlife species and trends
- Forest and habitat fragmentation (preliminary analysis completed but not included in this assessment; this information will be included in the next step of the plan).

In Phase II of the SFRMP process, the subsection team will 1) finalize the issues, 2) determine general future direction in response to the issues, 3) develop strategies to implement the general future direction, 4) identify DFFC goals, and 5) develop the stand-selection criteria for determining the stands and acres to be treated over the next 10 years.

Relationship of SFRMP to Other DNR Planning Efforts

While the SRFMP process focuses on developing vegetation management plans for state-administered forest lands within the subsection, it does not operate in a vacuum. SFRMP teams do their best to stay connected to other state, federal, and even local planning efforts affecting the subsection, particularly as they relate to management direction, decisions, and products that can assist in determining appropriate vegetation management direction on DNR lands. The following sections highlight a number of efforts that that SFRMP teams need to be aware of in order to incorporate relevant information, management direction, and products in the SFRMP process.

1. Off-Highway Vehicle (OHV) Planning Process

The DNR is currently in the midst of a major OHV planning process that will not be completed until 2008 at the earliest. The process began with a statewide road and trail inventory effort on DNR and county lands in the state. This inventory process was completed in 2005 and the resulting road/trail inventory maps are available for consideration in the SFRMP process. This road/trail inventory is most useful when SFRMP teams work to identify new access needs for proposed vegetation management.

The remaining work to be done in the OHV planning process is the OHV Forest Classification and Road/Trail Designation process. These OHV system plans are being developed for each state forest within DNR Division of Forestry administrative areas. During the OHV system planning process, area OHV system planning teams classify state forests for OHV use and identify roads, trails, and areas open to OHV use. Area

planning teams are responsible for leading a separate public input process for each OHV system plan.

While the SFMRP process does not include OHV system planning, SFRMP teams need to consider existing OHV trails and OHV system plans (where available), as well as other recreational trails and facilities, in making decisions on forest stand management next to these facilities and in determining new access needs. Likewise, OHV system plans should consider management direction and the results of stand selection (e.g., large patch areas, areas where temporary access is preferred, areas where new access is needed) developed through the SFRMP process.

For more information about the OHV planning process, visit the DNR Web site at <http://www.dnr.state.mn.us/input/mgmtplans/ohv/designation/index.html>.

2. Minnesota State Park Unit Planning Process

The SFRMP process will not address the management of DNR forest lands within the boundaries of state parks. The management of state parks (i.e., facilities and natural resources) is established via a separate state park planning process. Individual state park management plans address a park's ecological and recreational role in the context of the surrounding ecological community subsection(s) and its role in furthering Conservation Connection objectives. Park plans document existing natural and cultural resource conditions, and future management objectives. Existing recreational use and recreation trends are assessed, and a balance of sustainable recreational opportunities is recommended.

State park plans are developed through an open public process. The plan recommendations are developed through extensive involvement by interested citizens, recreation, and resource management professionals, and elected officials with local, regional, and statewide responsibilities. Usually this involvement is coordinated through a series of advisory committee meetings, area team meetings, public open houses, news releases, Internet Web site information, and review opportunities.

The SFRMP process should consider state park plans in making decisions on forest stand management adjacent to state parks. Likewise, state park plans need to consider the vegetation management direction and objectives in SFRMPs. Additionally, the SFRMP process should consider the role of state parks in the subsection in meeting desired future compositions and associated goals (e.g., biodiversity, wildlife habitat, community types, etc.).

For more information on state park management planning, contact the Division of Parks and Recreation Planning, Public Affairs and MIS manager at 651-259-5578 or toll free at 1-888-646-6367.

3. Incorporating Biodiversity Considerations in SFRMP

Biological diversity is defined in statute as the “variety and abundance of species, their genetic composition, and the communities and landscapes in which they occur, including the ecological structure, function, and processes occurring at all of these levels.” Protecting areas of significant biodiversity is consistent with state policy

(Minnesota Statutes 89A) to pursue the sustainable management, use, and protection of the state's forest resources to achieve the state's economic, environmental, and social goals.

The DNR SFRMP process provides an immediate opportunity to incorporate biodiversity considerations in planning for forest systems on DNR lands. Ecological Resources staff provides ecological information pertinent to managing for biodiversity to each of the subsection forest management teams (e.g. Minnesota County Biological Survey data, Natural Heritage information, Scientific and Natural Area biodiversity management techniques experience). SFRMP direction in addressing issues and developing strategies, desired future forest compositions, and ten-year lists of stands to be treated will reflect consideration of this information and the current, best understanding of how to manage for biodiversity.

In the future, the DNR will enhance and expand in partnership with affected stakeholders, biodiversity management planning efforts. However, the DNR's immediate focus is to incorporate biodiversity consideration into the SFRMP process.

4. Wildlife Plans and Goals

SFRMP plans are not wildlife habitat plans. Their implementation, however, affects forest habitats and consequently, wildlife distribution and abundance. Because state forest management under a multiple-use policy requires the consideration of wildlife habitat, several wildlife plans are considered during the SFRMP process.

a) Division of Fish and Wildlife Strategic Plan

The Minnesota DNR's Division of Fish and Wildlife Strategic Plan has recently established population and or harvest objectives for many of the state's wildlife species that are hunted and trapped. These objectives have been determined by a variety of processes that involve some level of stakeholder involvement and public review. Population objectives consider both biological and social carrying capacities tempered by economic needs or constraints (e.g., crop depredation). Among other tools, the division establishes annual harvest levels to meet desired population goals. During SFRMP, wildlife managers work toward the development of a plan that facilitates achievement of the wildlife population and/or harvest goals for key wildlife species outlined in the division's strategic plan.

b) Division of Fish and Wildlife "Fall Use Plan"

The Division of Fish and Wildlife's *Restoring Minnesota's Wetland and Waterfowl Heritage Plan*, also known as the Fall Use Plan, identifies harvest goals for waterfowl. This plan was consulted for determining extended forest management (ERF) needs with these subsections, as the amount of ERF influences cavity-nesting waterfowl populations.

c) Bird Plans

Several bird plans under the umbrella of the North American Bird Conservation Initiative provide a continental synthesis of priorities and objectives that can guide bird conservation actions. These plans identify species of continental importance, give a continental population objective, identify issues, and

recommend actions. Similarly, the North American Waterfowl Management Plan provides long-term trend information and population objectives for waterfowl species. Wildlife managers involved in SFRMP use this information to form their planning recommendations and decisions, particularly as they relate to desired future forest conditions and age-class composition.

d) Comprehensive Wildlife Conservation Strategy

The Minnesota Comprehensive Wildlife Conservation Strategy (CWCS) plan identifies wildlife species that are considered "species in greatest conservation need" because they are rare, their populations are declining, or they face serious threats of decline. The U.S. Congress has mandated that partnerships within states develop a CWCS to manage their "species in greatest conservation need."

This plan identifies problems, threats, and opportunities that face the species; it develops 10-year objectives for species populations, habitats, and priority research and information needs, and develops conservation actions that address the 10-year objectives. Wildlife managers use this information to form SFRMP recommendations and decisions.

5. Minnesota Forest Resource Council (MFRC) Landscape Planning Efforts

The 1995 Sustainable Forest Resources Act (Minn. Stat. Chapter 89A) directed the MFRC to establish a landscape-level forest resources planning and coordination program to assess and promote forest resource sustainability across ownership boundaries in large forested landscapes.

Volunteer, citizen-based regional forest resource committees are central to carrying out the general planning process. Within each landscape region, committees of citizens and representatives of various organizations work to:

- Gather and assess information on a region's current and future ecological, economic, and social characteristics
- Use information about a region to identify that region's key forest resource issues
- Plan ways to address key issues in order to promote sustainable forest management within the region
- Coordinate various forest management activities and plans among a region's forest landowners and managers in order to promote sustainable forest management

The MFRC Northeast, North Central, and Northern Regional Landscapes encompass portions of the North-4 Subsections. Recommended "desired outcomes, goals, and strategies" for these MFRC Landscapes have been completed. These recommendations will be considered and incorporated into the SFRMP process. This information will help the DNR make better decisions on DNR-administered lands and assist in cooperating with management in the larger landscape.

For more information on the MFRC landscape planning and coordination program, visit the MFRC Web site at: <http://www.frc.state.mn.us/Landscp/Landscape.html>.

Application of Statewide Plans and Guidelines

The DNR uses a variety of written vehicles (e.g., policies, guidelines, recommendations, memos, operational orders, agreements) to communicate direction to DNR staff on a range of forest management issues including old-growth forests, inter-divisional coordination, site-level mitigation, rare habitats and species, and accelerated management. Interdisciplinary and external involvement has varied in the development of these direction documents, as have the expectations for their implementation (i.e. must follow, follow in most cases, follow when possible). *Figure i* places a number of DNR direction documents within a defined policy hierarchy that clarifies decision authority and expected actions. This can serve as a useful reference for the public in understanding the array of forest management guidance available to staff and serve as a starting place for DNR staff to help provide more consistent application across the state.

Figure i
Grouping of DNR Direction Documents by 3-level Hierarchy

Nomenclature	Who Developed	Level of Review	Expectations	Departure Authority
Policies				
Old Growth Forest Guideline	DNR			No departures allowed
ERF Guideline	DNR			No departures allowed
Forest/Wildlife Coordination Policy	DNR			No departures allowed
WMA Policy	Wildlife			Region - Interdisciplinary
SNA Est. & Admin. Op. Order	Eco Resources			No departures allowed
MFRC Site-Level Guidelines	MFRC			Field appraiser w/ documentation
ID and Mgmt of EILC	CO/FRIT			Region - Interdisciplinary
Guidelines				
Rare Species Guides	Eco Resources			Known locations: Area ID Otherwise: field appraiser w/ doc.
Covertypes Mgmt. Recommendations	SFRMP Teams			Field appraiser w/ documentation
NE Region Wood Turtle	NE Region (For, Wild, Trails)			Region - Interdisciplinary
Decorative Tree Harvest Guidelines	Forestry			Area - Interdisciplinary
Accelerated Management	Forestry			Area - Interdisciplinary
Gypsy Moth Mgmt. Guidelines	Forestry/Dept. of Agr.			Field appraiser w/ documentation
For/Wild Habitat Guidelines	Wildlife/Forestry			Area - Interdisciplinary
Integrated Pest Management	Forestry			Field appraiser w/ documentation
Silvicultural Mgrs. Handbooks	NCES, Forestry			Field appraiser w/ documentation
NE R. Grouse Mgmt. Areas	Wildlife			Area - Interdisciplinary

Figure i (continued)

Recommendations			
Goshawk Considerations	Eco Resources		Known locations: Area - Interdisciplinary Otherwise, document use
MCBS H/O Biodiversity	Eco Resources		Consider if site conditions differ from FIM
ECS Field Guide Interps.	Eco Resources/Forestry		Field appraiser w/ documentation
MCBS Rare NPC	Eco Resources		Known locations: Area - Interdisciplinary Otherwise, document use
Red-Shouldered Hawk	Eco Resources		Known locations: Area - Interdisciplinary Otherwise, document use
Four-toed Salamander	Eco Resources		Known locations: Area - Interdisciplinary Otherwise, document use
Black-throated Blue warblers	Eco Resources		Document use
Seasonal ponds	Eco Resources		Document use
Boreal owl guidelines	Eco Resources		Known locations: Area - Interdisciplinary Otherwise, document use
Botrychium guidelines	Eco Resources		Known locations: Area - Interdisciplinary Otherwise, document use

KEY	
	Must follow; no departures
	Expected to follow; documented & approved departures OK
	Expected to follow to the degree possible
	Recommended in usual circumstances; departures OK based on site conditions
	Recommended when opportunities and conditions suitable
	Incorporate if possible
	Broad external technical & public
	Broad public/stakeholder
	Limited public/stakeholder
	Department ID review
	Local ID team review
	Division review w/ peer technical input
	Division review

The following sections highlight several of the more prominent direction documents and their relation to the SFRMP process.

1. DNR Strategic Conservation Agenda 2003–2007 and DNR Directions 2000.

The department's strategic planning documents, *DNR Strategic Conservation Agenda 2003–2007* and *DNR Directions 2000*, provide broad goals, strategies, and performance indicators for forest resources in Minnesota (see *DNR Directions 2000*, Forest Resources Section in Appendix A and *DNR Strategic Conservation Agenda*, Forests Section at <http://www.dnr.state.mn.us/conservationagenda/index.html>). This broad statewide direction will be used as a platform from which to develop additional complementary/supplemental goals and strategies specific to each subsection.

2. Old-Growth Forest Guidelines

The 1994 DNR Old-Growth Forest Guideline was developed via a stakeholder involvement process that led to consensus on old-growth forest goals by forest type by ECS subsection for DNR lands. Following the completion of the guideline, the DNR undertook and completed an old-growth nomination, evaluation and designation process for DNR lands. The latest information on old-growth forest policy and results can be found at <http://www.dnr.state.mn.us/forests/oldgrowth/policy.html>.

Old-growth stand designation has been completed statewide and additional old-growth designation is not part of the SFRMP process. The primary significance of old growth in the SFRMP process is determining how DNR forest stands adjacent to and connecting adjacent old growth stands will be managed (e.g., as extended rotation forests, part of large patches, scheduling of harvest, conversion to other forest types, etc.). If not done prior to the SFRMP process, old forest management complexes (see Old-Growth Guideline Amendment #5) will be identified in conjunction with the SFRMP process.

3. Extended Rotation Forest Guideline

The 1994 DNR Extended Rotation Forest (ERF) Guideline was developed through a previous public and stakeholder input process. The primary purpose of the ERF Guideline is to provide adequate acreages of forest older than its normal rotation age to provide for species and ecological processes requiring older forests. During the SFRMP process, the ERF Guideline is to be applied to landscapes by designating particular areas of forest or stands for ERF management. An area designated for ERF management will include all cover types and age classes within that designated ERF area.

Normal rotation ages will be established for each forest type managed primarily under even-aged silvicultural systems within the subsection based on site-quality characteristics related primarily to timber production (e.g., site index, growth rates, soils, insect and diseases, etc.). Maximum rotation ages for these forest types will also be established based on the maximum age at which a stand will retain its biological ability to regenerate to the same forest type and remain commercially viable as a marketable timber sale. Final harvest of an ERF stand will occur sometime between the normal rotation age for the cover type and the maximum rotation age. A forest

stand is considered to be old forest whenever its age exceeds the normal rotation age for that cover type and is considered “effective ERF.”

According to the statewide ERF Guideline, a minimum of 10 percent of the DNR Forestry- and Wildlife-administered timberlands within a subsection are to be managed as ERF. No maximum amount is identified in the guideline, although the guideline states it may be appropriate to designate 50 percent or more of DNR timberlands as ERF in some subsections. Determining the amount of DNR timberlands to be managed as ERF within each subsection involves consideration of wildlife habitat needs, visual and riparian corridors, and implications for timber production (both quantity and quality). The condition and future management of other forest lands in the subsection (i.e., other DNR and non-DNR lands) are considered to the extent possible in determining the amount of designated ERF on DNR timberlands.

4. Minnesota Forest Resource Council’s (MFRC) Voluntary Site-level Forest Management Guidelines

The MFRC’s *Voluntary Site-Level Forest Management Guidelines* establish integrated forest resource management practices intended to provide cultural resource, soil productivity, riparian, visual, water quality, wetlands, and wildlife habitat protections in a balanced approach. These guidelines were developed through a collaborative statewide effort and received extensive input during development from stakeholders, DNR staff, and other agency staff. The DNR adopted and strongly endorses the *Voluntary Site-Level Forest Management Guidelines* developed through that collaborative process. These guidelines are the standard in managing DNR lands, i.e., they are not voluntary on DNR-administered lands. As the department standard, departures from the guidelines will not be proposed in SFRMPs for entire subsections or geographic areas within subsections. There is flexibility and various options are available in application of the guidelines, but departures from the guideline standards need to be documented on a site-by-site basis. If departures above or below guideline recommendations (e.g., recommended minimums for riparian management zone [RMZ] width and residual basal area in the RMZ) are made, they will be documented during the timber sale appraisal and forest development processes.

5. DNR Forest-Wildlife Habitat Management Guidelines

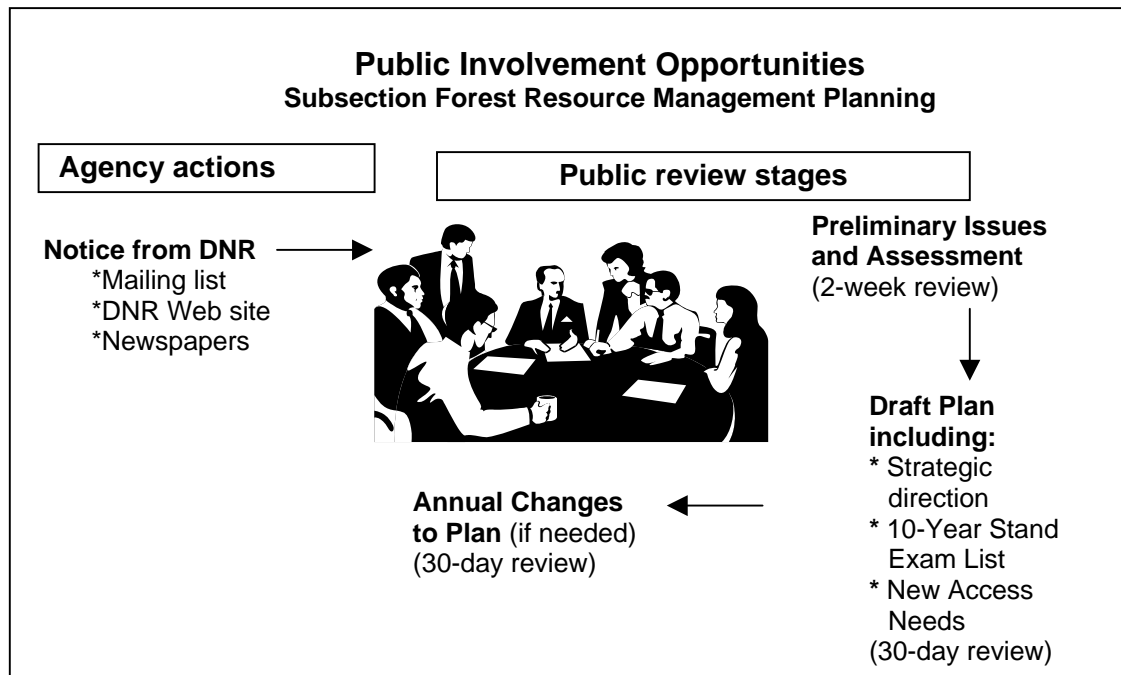
DNR forest-wildlife habitat management guidelines provide direction to DNR wildlife and forestry staff for integrated management on state-administered lands. The guidelines were last revised in 1985. As such, some portions of the guidelines are out-of-date. Some areas of the guideline overlap with the MFRC site-level forest management guidelines. MFRC site-level guidelines will prevail when they overlap with DNR forest-wildlife habitat management guidelines. Species-specific sections of the guidelines that are still considered current are relevant in the SFRMP process in determining management around known species locations (i.e., eagles nests) or in the management of areas for particular types of habitat (e.g., open landscapes, ruffed grouse management areas, deer yards, etc.).

6. DNR Forestry/Wildlife/Ecological Resources Coordination Policy

DNR Forestry/Wildlife/Ecological Resources Coordination Policy is currently in the process of being revised. Following revision of the coordination policy, the forest wildlife habitat management guidelines will be reviewed and updated as needed.

Public Involvement

Figure ii



Public involvement will, at a minimum, occur through:

- Distribution of the initial assessment information (mailings and Web site).
- A public comment period to help identify key forest management issues and solicit public opinion of preferred management direction.
- A public comment period to review the draft plan and strategic direction (i.e., general direction, forest management strategies, and desired future forest conditions (DFFCs) proposed by the DNR to address identified issues) along with the 10-year list of stands proposed for treatment and associated new access needs.
- Public review and comment on proposed plan revisions.

SFRMP planning documents will be available at DNR area forestry offices, selected public locations, and the DNR Web site

www.dnr.state.mn.us/forestry/subsection/north_4/assessment.html

Summary information will be available upon request.

Looking Toward the Future

While the initial focus of SFRMPs is on forest composition and vegetation management, the intention is for its scope to broaden in the future. Changes in this direction will likely be incremental as the process becomes more familiar to DNR staff

and the public. The likely progression in future years will be to include other aspects of forest land management on DNR lands (e.g., recreation facilities/systems, land acquisition/sales) and other DNR Forestry programs including private forest management and fire management. A subsequent step may be to include lands administered by other units of DNR (i.e., Fisheries, Parks, etc.), making this a department-wide plan that is not limited to Forestry, Wildlife, and Trails and Waterways land.

SFRMP Process Table

The North-4 Subsections team is in the initial stages of the SFRMP process. The team has developed the preliminary issues and assessment information and is now requesting public input, the first of three such opportunities in the SFRMP process.

Table i Public Involvement and Process Timelines

Subsection Forest Resource Management Planning Steps	Public Notification/Participation	Public Comment Period	Length of Step [†]
<p>I. Preparation to Begin the Planning Process</p> <ul style="list-style-type: none"> Assemble initial assessment information and data sets. Designate team and facilitator, and conduct team training. 	<ul style="list-style-type: none"> DNR develops mailing list of public/stakeholders. Establish web-site for subsection. 	n/a	Complete prior to official start of process
<p>II. Assessment and Issue Identification</p> <p><i>(CURRENT STAGE)</i></p>	<ul style="list-style-type: none"> Inform the public of planning efforts, schedule, and how and when they can be involved. Mail Assessment and Issues Summary to mailing list. Provide complete maps and documents in key locations and on Web/CD. 	2 Weeks	60 days
<p>III. Develop Draft Plan</p> <p>a. Strategic Direction (GDSs, Strategies, DFFCs to address issues and Stand Selection Criteria)</p> <p>b. Draft Stand Examination List and New Access Needs</p>	<ul style="list-style-type: none"> Mail summary to mailing list. Provide complete maps and documents in key locations and on Web/CD. Identify SFRMP contacts for questions. Offer meetings by appointment 	30 days	225 days (7½ months)
<p>IV. Finalize Plan</p> <ul style="list-style-type: none"> Planners summarize public comments and DNR responses. Present revised plan to Department for Commissioner’s approval. Commissioner approves final plan & posts written notice in state register. 	<ul style="list-style-type: none"> Inform public of final plan. Provide summary of public comments and how DNR responded. Provide final plans in key locations and on Web/CD and in. Mail plan summaries to mailing list. 	None	75 days
<p>Total*</p>			360 days (12 months)

[†] Time frames for process steps include public review/comment period

Issue Identification

One of the first steps in the SFRMP process is to identify issues that the plans will address. SFRMP teams will use assessment information; local knowledge; existing plans, policies, and guidelines; and public input to help identify issues relevant to the scope of the plans. Subsection teams will begin with the common set of issues developed from previous SFRMP plans. These common SFRMP issues will then be refined and supplemented based on subsection-specific conditions and considerations.

What Is an SFRMP Issue?

A SFRMP issue is a natural resource-related concern or conflict that is directly affected by, or directly affects, decisions about the management of vegetation on lands administered by the Minnesota DNR Division of Forestry and Division of Fish and Wildlife. Relevant issues will likely be defined by current, anticipated, or desired forest vegetation conditions and trends, threats to forest vegetation, and vegetation management opportunities. The key factor in determining the importance of issues for SFRMP will be whether the issue can be addressed in whole or substantial part by vegetation management decisions on DNR-administered lands.

What Is Not a SFRMP Issue?

Issues that cannot be addressed in whole or substantial part by vegetation management decisions on DNR-administered lands are outside the scope of the SFRMP process. For example, SFRMP will not address recreation trails system issues or planning. However, aesthetic concerns along existing recreational trail corridors can be a consideration in determining forest stand management direction in these areas. Another example is wildlife populations; the plan will establish wildlife habitat goals but not goals for wildlife population levels.

Each issue needs to consider four pieces of information:

- What is the issue?
- Why is this an issue? (i.e., What is the specific threat, opportunity or concern?)
- What are the likely consequences of not addressing this issue?
- How can this issue be addressed by vegetation management decisions on DNR-administered lands?

Public Review

The assessment document and preliminary issues for the subsection will be distributed for a two-week public review and comment period. The assessment will be available at DNR area offices and selected public libraries in the subsection, as well as electronically through the DNR Web site. There are no public open houses for this step in the process.

After public review, the subsection team will finalize the list of issues by considering public comments. The final list of issues will be made available on the SFRMP Web site and included in the public review draft of the DFFC, Strategies, and Stand-Selection Criteria document.

The following pages contain the preliminary issues identified by the subsection team. These issues were developed based on the common issues from previous SFRMP

plans, general field knowledge of department staff, and by reviewing forest resource information for the subsections. The next step of the SFRMP process will determine how vegetation management on DNR-administered lands will address these issues. Comments on the preliminary issues and identification of additional issues by the public are welcome.

Preliminary Issues

The North-4 Subsections team has begun identifying important issues in these subsections that should guide forest planning. A preliminary issues list was developed to stimulate thought on issues that may impact forest planning in these four subsections. The team is asking four critical questions for each of the issues it identified:

- 1) What is the issue?
- 2) Why is it an issue?
- 3) How might DNR vegetation management address the issue?
- 4) What are possible consequences for not addressing the issue?

This plan will provide guidance for forest management on state lands for the next 10 years and establish goals for the next 50 to 100 years. The North-4 Subsections team is looking for additional issues that affect our forests and could be mitigated or avoided by forest planning and vegetation management. The team invites the public to submit issues and comment on those that follow, and requests that issues be submitted following the same format and addressing the same four questions listed above. A form on which to submit issues and amend those already outlined is located on the Web site at:

<http://www.dnr.state.mn.us/forestry/subsection/north-4subsections/assessment.html>.

It is available upon request from the North-4 Subsections Forest Planner:

North-4 Subsections Forest Planner
DNR Forestry
1200 Minnesota Avenue South
Aitkin, MN 56431
Phone: (218) 927-7511
Email: lynn.mizner@dnr.state.mn.us

See cover letter or Web site for comment deadline!!

Preliminary Issues

A. How should the age classes of forest types be represented across the landscape?**• Why is this an issue?**

Representation of all age classes and growth stages, including old-forest types, provides a variety of wildlife habitats, timber products, and ecological values over time.

• How might DNR vegetation management address this issue?

Vegetation management can provide for a balance of all forest types and age classes.

• What are possible consequences of not addressing this issue?

A forest without representation of all age classes and growth stages exposes itself to increased insect and disease problems, loss of species with age-specific habitat requirements, and loss of forest-wide diversity. Such a forest would also provide a boom-and-bust scenario for forest industries that depend on an even supply of forest products.

• Other considerations?

What other factors ought to be considered with this issue?

B. In your opinion, what are appropriate mixes of vegetation composition, structure, spatial arrangement, growth stages, and plant community distribution on state lands across the landscape?

• Why is this an issue?

These subsections have experienced decreased ecological diversity over time. Since European settlement, forest composition and structure have been simplified, e.g., mature, diverse pine stands were harvested and replaced by early successional and less diverse forest types such as aspen, birch, and jack pine. Certain important component tree species and forested communities have declined, such as paper birch, mixed pine, lowland conifers, and jack pine. Existing landscape patterns do not reflect natural disturbance patterns and the composition, structure, and function of native plant community complexes that developed historically over long periods of time. Current vegetation management often does not replicate the characteristics of natural disturbance events. Forest fragmentation results in a loss of ecologically intact landscapes as forests are converted to other uses, e.g., residential development.

• How might DNR vegetation management address this issue?

DNR can develop vegetation management strategies that produce effects similar to natural disturbances and can begin to restore certain species and conditions that were once more prevalent.

• What are possible consequences of not addressing this issue?

1) Loss of wildlife habitat and associated species; 2) increase in invasive exotics; 3) loss of biodiversity; 4) simplification of stand and landscape communities; 5) loss of ecologically intact landscapes; and 6) loss of the ability to produce a diversity of forest products, e.g., saw timber, balsam boughs and other nontimber products, and tourism.

• Other considerations?

What other factors ought to be considered with this issue?

C. How can we address the impacts of forest management on riparian and aquatic areas?

- **Why is this an issue?**

Riparian areas are critical to fish, wildlife, and certain forest resources.

- **How might DNR vegetation management address this issue?**

The Minnesota Forest Resources Council (MFRC) site-level guidelines are the DNR's standard for vegetation management in riparian areas. At the site level, managers may want to exceed those guidelines. When planning vegetation management adjacent to aquatic and riparian areas, managers can consider specific conditions associated with each site such as soils, hydrology, desired vegetation, and consider enhancements to the MFRC guidelines.

- **What are possible consequences of not addressing this issue?**

Failure to consider vegetation management that affects riparian and aquatic areas could result in increased run-off and erosion; more conspicuous run-off events; less stable stream flows; and negative impacts to water quality, fisheries, and wildlife habitat.

- **Other considerations?**

What other factors ought to be considered with this issue?

D. How can DNR develop new forest management access routes that minimize damage to other forest resources?**• Why is this an issue?**

Routes are necessary to access forest stands identified for management during the 10-year planning period. These routes provide access for a variety of forest management activities and recreation. Negative impacts include costs, land disturbance, losses to the timberland base, increased spread of invasive exotic species, potential for user-developed trails, and habitat fragmentation.

• How might DNR vegetation management address this issue?

Using existing access routes or closing access routes after forest management activities have been completed might meet needs while minimizing negative impacts.

• What are possible consequences of not addressing this issue?

Not planning for access needs could result in unfulfilled management goals; poorly located access routes; negative impacts on wildlife habitat; and excessive costs for development, maintenance, and road closure.

• Other considerations?

What other factors ought to be considered with this issue?

E. How might we maintain or enhance biodiversity, native plant community composition, and retain within-stand structural complexity on actively managed stands where natural succession pathways are cut short?

• Why is this an issue?

Areas of biodiversity significance provide reference areas to help us evaluate the effects of management on biodiversity. Forest management has altered the rate and direction of natural change. Some current practices tend to reduce within-stand structural complexity and diversity of vegetation.

• How might DNR vegetation management address this issue?

DNR will incorporate management techniques that maintain or enhance biological diversity and structural complexity into vegetation management plans. The Minnesota Forest Resources Council, which was established by the Minnesota Sustainable Forest Resources Act, is mandated to "encourage appropriate mixes of forest cover types and age classes within landscapes to promote biological diversity and viable forest-dependent fish and wildlife habitats."

• What are possible consequences of not addressing this issue?

1) Degradation of existing biodiversity and ecosystem function; 2) fewer opportunities for maintaining or restoring ecological relationships; 3) reduction of species associated with declining habitat; and 4) social and economic losses resulting from a decline in recreational activity associated with wildlife viewing and hunting.

• Other considerations?

What other factors ought to be considered with this issue?

F. How might we provide habitat for all wildlife and plant species and maintain opportunities for hunting, trapping, and nature observation?**• Why is this an issue?**

Forest wildlife species are important to society. A wide range of factors, from timber harvest to development, influences wildlife species and populations.

• How might DNR vegetation management address this issue?

DNR can select vegetation management techniques that provide a variety of wildlife habitats.

• What are possible consequences of not addressing this issue?

1) Reduction of some types of wildlife habitat; 2) reductions of species associated with declining habitats; and 3) economic and social losses resulting from a decline in recreational activity associated with wildlife viewing, hunting, and aesthetics.

• Other considerations?

What other factors ought to be considered with this issue?

G. How might we address the impacts on forest ecosystems from forest insects and disease, invasive species, nuisance animals, herbivory, global climate change, and natural disturbances such as fires and blowdowns?

• Why is this an issue?

All of the above-mentioned processes can impact the amount of forest land harvested and regenerated during the 10-year planning period. They can also influence the long-term desired future forest composition (DFFC) goals of the subsection plans.

• How might DNR vegetation management address this issue?

DNR can design flexibility into the plan to deal with specific stands that are affected by these processes.

• What are possible consequences of not addressing this issue?

1) Reduced timber volume and recreational enjoyment of the forest; 2) long-lasting change to native plant and animal communities; and 3) increased fire danger.

• Other considerations?

What other factors ought to be considered with this issue?

H. What are sustainable levels of harvest for timber and nontimber forest products?

- **Why is this an issue?**

Some cover types have pronounced age-class imbalances. Demand for nontimber forest products, e.g., balsam boughs and decorative trees, have been increasing.

- **How might DNR vegetation management address this issue?**

The DNR can develop a 10-year harvest plan for state lands in these subsections that promotes a balance of all age classes for all cover types and propose regulations to protect some nontimber species.

- **What are possible consequences of not addressing this issue?**

1) Possible unsustainable harvest of these resources; 2) adverse impact to wildlife habitat and native plant communities; and 3) unintended harvest of rare species.

- **Other considerations?**

What other factors ought to be considered with this issue?

I. How can we increase the quantity and quality of timber products on state lands?**• Why is this an issue?**

The demand for timber has increased, while demand for other forest values has also increased. Minnesota's forest industry requires a sustainable and predictable supply of wood.

• How might DNR vegetation management address this issue?

Vegetation management planning can identify forest stands for treatments that will increase timber productivity (e.g., harvesting at desired rotation ages, thinning, control of competing vegetation, and reforestation to desired species and stocking levels).

• What are possible consequences of not addressing this issue?

A less-predictable or unsustainable supply of timber would be available for logging and the forest products industry, likely resulting in higher procurement, chemical, and waste management costs. Alternatively, wood and wood product imports might increase from countries that have fewer environmental controls, effectively exporting U.S. environmental issues.

• Other considerations?

What other factors ought to be considered with this issue?

J. How can we implement forest management activities and minimize impacts on visual quality?**• Why is this an issue?**

Scenic beauty is the primary reason people choose to live or use their recreation and vacation time in or near forested areas.

• How might DNR vegetation management address this issue?

DNR managers will continue to follow Best Management Practices (BMPs) for visual quality and identify areas that may need additional mitigation strategies.

• What are possible consequences of not addressing this issue?

Not addressing this issue may result in a negative experience for the public living, vacationing, and recreating in our forests.

• Other considerations?

What other factors ought to be considered with this issue?

K. How will land managers achieve desired results and continue to uphold various state and federal statutes?**• Why is this an issue?**

Divisions within the DNR must follow legal mandates, while fulfilling both department and division missions. For example, State Trust Fund lands must generate income for various trust accounts under state law, and timber sales are currently the primary tool for this process. Wildlife habitat management and preservation, not timber sales, is the mandate for acquired Wildlife Management Area (WMA) lands.

• How might DNR vegetation management address this issue?

Vegetation management will take administrative land status and relevant statutes into consideration during the planning process.

• What are possible consequences of not addressing this issue?

Failure to follow these mandates and legislative intent may be a violation of federal or state law.

• Other considerations?

What other factors ought to be considered with this issue?

L. How will cultural resources be protected during forest management activities on state- administered lands?**• Why is this an issue?**

Cultural resource sites possess spiritual, traditional, scientific, and educational values. Some types of sites are protected by federal and state statutes.

• How might DNR vegetation management address this issue?

DNR managers will continue to have all vegetation management projects reviewed for known cultural resources. They will survey unidentified sites and if cultural resources are found, modify the project to protect the resource. If cultural resources are discovered during a project, the project will be modified to protect the resource.

• What are possible consequences of not addressing this issue?

Loss or damage to cultural resources.

• Other considerations?

What other factors ought to be considered with this issue?

M. How can we ensure that rare plants and animals, their habitats, and other rare features are protected in these subsections?**• Why is this an issue?**

Protecting rare features (endangered, threatened, and special concern species) is a key component of ensuring species, community, and forest-level biodiversity in these subsections.

• How might DNR vegetation management address this issue?

The Minnesota County Biological Survey (MCBS) has been completed in some counties, is in progress in other counties, and has not started in a few counties within the two subsections. DNR managers will check the Rare Features Database for the location of known rare features in these two subsections. The needs of rare features will be addressed in the management plan.

• What are possible consequences of not addressing this issue?

1) Loss of rare species at the local and state level; 2) rare species declines leading to status changes; 3) rare habitat loss or degradation; and 4) loss of biodiversity at the species, community, and/or landscape level.

• Other considerations?

What other factors ought to be considered with this issue?