

Chapter 1

Purpose, Need, and Forest Plan Revision Issues



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**Chequamegon-Nicolet
National Forests**



Chapter 1

Purpose, Need, and Forest Plan Revision Issues

Introduction

The Forest Service proposes to revise the 1986 Land and Resource Management Plans for the Chequamegon and Nicolet National Forests. The 2004 Land and Resource Management Plan (Forest Plan) will be used to guide all management activities on the Chequamegon-Nicolet National Forests. This document, the Final Environmental Impact Statement (FEIS) to accompany the 2004 Forest Plan, provides information that describes aspects of the 1986 Forest Plans that need to be changed, describes forest management alternatives that address the needed changes, and documents the effects of implementing each of the management alternatives on the ecological, social, and economic environment of the Chequamegon-Nicolet National Forests (CNNF).

The companion document to the FEIS is the 2004 Forest Land and Resource Management Plan (Forest Plan). The Forest Plan is developed in accord with the Regional Forester's identified "Selected Alternative," which is based on public input, legal requirements, and resource needs. The Forest Plan guides all natural resource management activities, establishes management goals and objectives, guides allocation of lands to different management emphases, and provides standards and guidelines for Plan implementation. Many forest management issues cross administrative boundaries and need to be addressed on a scale that spans an area much larger than an individual forest. The Chequamegon-Nicolet National Forests' planners worked with northern Wisconsin Indian Tribes, the Wisconsin Department of Natural Resources, other natural resource management agencies, and adjacent counties to ensure a broad vision when proposing and analyzing potential changes to resource management on the Chequamegon-Nicolet National Forests.

The FEIS is divided into the following five chapters: Chapter One (Purpose, Need, and Forest Plan Revision Issues) describes the reasons for revising the 1986 Forest Plans; Chapter Two (Alternatives) describes and compares alternatives for meeting revision goals on the Chequamegon-Nicolet National Forests (the alternatives display a reasonable range of responses to the ten Forest Plan revision issues described in this chapter); Chapter Three describes the Forests' and surrounding area's physical, biological, and social environments and the effects of Alternatives 1-9 and the Selected Alternative on these environments (the Selected Alternative is a modification of Alternative 5, the agency-identified Preferred Alternative in the Draft EIS); Chapter Four lists those who participated in preparation of the FEIS; and Chapter Five lists distribution of FEIS copies to federal, state and local agencies, tribal governments, organizations, businesses, and individuals.

Proposed Action

The Chequamegon-Nicolet National Forests propose to revise and combine their 1986 Forest Land and Resource Management Plans to address new information and changed conditions outlined in the Purpose and Need section below. Current Forest Plan management direction not needing revision will be affirmed by the revised plan.

Purpose and Need for Forest Plan Revision

The purpose of this proposed action is to revise the Forest Plans that currently provide management direction for the Chequamegon-Nicolet National Forests based on new information, changed conditions, and public comments since they were developed. The Chequamegon and Nicolet National Forests were separate units when their 1986 plans were approved. Since they are now combined into a single administrative unit (Chequamegon-Nicolet National Forests), one Environmental Impact Statement (EIS) and one Forest Plan have been prepared for both Forests. The revised Forest Plan must satisfy current federal laws, regulations, and policies as well as address new and changing information about the Forests and their uses.

The Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act (NFMA) of 1976, requires the preparation of a land and resource management plan (forest plan) to guide management of each national forest. Forest plans provide direction for all resource management activities. The Code of Federal Regulations (36 CFR 219.10 (g) Revision) and NFMA require that forest plans be reviewed every five years and revised at least every 15 years, or more frequently if forest conditions significantly change. Through monitoring and evaluation the Forest Supervisor may recommend the revision of a Forest Plan at any time. Such recommendations may be based on changing local conditions or new or evolving agency policies.

The current Forest Plans were approved in 1986 and were appealed almost immediately by several individuals and organizations. Some appeals were withdrawn and several others were dismissed by the Chief of the Forest Service. In the remaining appeals, which had been filed by several environmental organizations, appellants believed the plans failed to adequately address biological diversity and timber wolf recovery. They also alleged the Forests violated several federal laws. The Chief's decisions on these appeals generally upheld both Forest Plans, but directed the Regional Forester to adjust timber harvesting and road construction activities within semi-primitive non-motorized areas, amend each plan to include guidelines to ensure the conservation of certain sensitive plant species, and to further address biological diversity issues.

In January 1990, the Chief of the Forest Service directed the Wisconsin National Forests to establish a "committee of experts" to address biological diversity issues. In response, both Forests and a committee of scientific experts established the "Scientific Roundtable" in 1992 to address biological diversity issues. The efforts of this group resulted in publication of the *"Report on the Scientific Roundtable on Biological Diversity Convened by the Chequamegon and Nicolet National Forests"* (General Technical Report NC-166) in March 1994.

The Forests recognized the need to conduct another roundtable that would examine the potential social and economic impacts of the recommendations from the Roundtable on Biological Diversity. The Chequamegon and Nicolet National Forests published the results of the Socioeconomic Roundtable, the *"Report on the Socioeconomic Roundtable Convened by the Chequamegon and Nicolet National Forests"* (General Technical Report NC-177), in March 1995. The recommendations in these reports introduced several new issues and provided information about significant changes in conditions (since 1986) that influenced forest plan revision.

A coalition of environmental organizations filed lawsuits in Federal District Court against the Nicolet Forest Plan in April 1990 and the Chequamegon Forest Plan in September

1990. The Court eventually ruled in favor of the Forest Service, concluding that the analysis in the 1986 Plans was adequate based on the knowledge and information available at the time it was performed. However, a footnote in the 1994 Decision and Order stated, “Thus, the court’s conclusions regarding the rationality of defendants’ mid-1980s analysis of biological diversity do not necessarily apply to subsequent analysis.”

It was determined that the Plans should be revised in response to updated resource information and scientific knowledge as well as changing social, economic, and environmental concerns. The *End of Decade Monitoring Report for the Chequamegon-Nicolet National Forest*, 1996, identified the following first decade changes that contributed to the necessity to revise the Forest Plans:

- Geographic information system technology enabled the Forests to map and spatially analyze its resource base.
- The Biological Diversity and Socioeconomic Roundtables provided a wealth of information and recommendations that enabled forest managers to better understand biological diversity, ecosystem management, and the socioeconomic effects of resource management activities.
- The aquatic and land-based ecological classification system and other specific resource inventories provided forest managers with new information for improving the management and protection of the Forests’ resources.
- Information obtained during Forest Plan implementation made it possible to improve the estimation of the Forests’ Allowable Sale Quantities.
- The social environment changed as a result of northern Wisconsin population increases and private land development next to the Forest.

The USDA Forest Service published its *USDA Forest Service Strategic Plan (2000 Revision)*, setting long-term goals and objectives that will guide future agency actions in concert with the Government Performance and Results Act (Results Act). One objective is to “provide ecological conditions to sustain viable populations of native and desired nonnative species and to achieve objectives for Management Indicator Species (MIS).” Strategies to accomplish this objective include implementing habitat restoration and management activities for species of viability concern and ecosystems at risk. This strategy is in accordance with recommendations provided to the Forests’ in the “*Report on the Scientific Roundtable on Biological Diversity Convened by the Chequamegon and Nicolet National Forest.*”

In June 1996, the Forest Supervisor and Regional Forester identified forest plan revision needs in the Notice of Intent to Prepare an Environmental Impact Statement for Revision of Land and Resource Management Plans for the Chequamegon-Nicolet National Forest (NOI). The following four major forest plan revision topics were identified in the NOI: (1) access and recreational opportunities, (2) biological diversity, (3) special land allocations, and (4) timber production. Special forest products were also identified as an item that would be addressed in the revision.

Ten problem statements were later established, as part of the development of alternatives, which elaborate on the details of the NOI topics.

Decisions Made in the Forest Plan

The approval of the Forest Plan results in:

- Forestwide multiple-use goals and objectives (36CFR 219.11(b));
- Forestwide management standards and guidelines (16 USC 1604), (36CFR 219.13-27);
- Management Area Prescriptions and Standards and Guidelines that apply specifically to future activities within designated management areas (36 CFR 219.11);
- Identification of lands suitable for timber production (16 USC 1604(k), 36 CFR 219.14), and establishment of an allowable sale quantity (16 USC 1611 and 36 CFR 219.16);
- Recommendations to Congress (e.g. recommendations for Wilderness Study Areas (36 CFR 219.17)); and
- Forest Plan monitoring and evaluation requirements (36 CFR 219.11(d)).

Public Involvement, the Environmental Analysis and Decision-making Processes, and Issue Identification

Public Involvement

American Indian tribes, other federal agencies, State and local governments, individuals, and organizations helped identify Forest Plan revision issues. The Forests hosted a series of open house meetings when the Notice of Intent was issued. The meetings provided information about the forest plan revision process and gathered public input on the scope of the decisions to be made. Forest planning open houses, newsletters, and news releases informed the public about the progress of the revision. Public input helped shape the alternatives considered during the forest plan revision process. Following release of the Proposed Plan and Draft EIS, 10 informational open houses and five formal public hearings were held. The 90-day comment period was extended for an extra 30 days. Approximately 3,000 unique responses were received with multiple comments on the Draft documents. See Appendix A for details on the public involvement process.

The Forests consulted and exchanged information with local governments, including counties, State agencies, and local American Indian tribes on a government-to-government basis throughout the plan revision process. Consultation aided the development of revised management goals and objectives as well as standards and guidelines.

Forest management issues also span administrative and regional boundaries. Collaboration with other national forests and other federal agencies has been important during forest plan revision.

Environmental Analysis and Decision-making Processes

The results of an analysis of environmental effects for each of the alternatives are displayed in Chapter 3 of this Final Environmental Impact Statement (FEIS). The alternative thought to best resolve the issues being addressed by plan revision was identified as the “preferred alternative” in the Proposed Plan and Draft EIS published in April of 2003. Identification of a preferred alternative for the Proposed Forest Land and Resource Management Plan provided a management direction to which the public

responded during the comment period following release of the draft documents. Comments from the public were gathered during a four-month comment period beginning April 11, 2003 and extending to July 11, 2003.

The Forests then reviewed and analyzed the public comments (See Appendix A). In response to public comments, an additional alternative was developed that is a modification of the preferred alternative (Alternative 5). This new alternative is the alternative selected for implementation and is referred to as the “Selected Alternative” in the FEIS. Characteristics of the Selected Alternative are displayed in Chapter 2 of the FEIS. Environmental effects for the Selected Alternative, as well as Alternatives 1-9, have been displayed in Chapter 3 of the FEIS.

Reasons for selecting the new alternative are documented by the Regional Forester in a Record of Decision. A response to public comments is provided in Appendix A of the FEIS. The FEIS, Forest Plan, and Record of Decision have been released simultaneously.

Forest Plan Revision Topics and Issues

As stated previously, the Forest Supervisor and Regional Forester concurred on the identification of the following four major topics that needed to be addressed in the forest plan revision process:

1. access and recreational opportunities,
2. biological diversity,
3. special land allocations, and
4. timber production.

These revision topics function as broad headings for ten important subtopics or issues. For example, the Biological Diversity revision topic includes issues such as: aquatic, riparian, and wetland ecosystems; landscape patterns; ecosystem restoration; old growth; and wildlife management. Problem Statements were prepared for each issue and shared with the public. The Problem Statements for each issue are listed below under the appropriate revision topic.

The Wilderness subtopic, listed under the topic of Special Land Allocations in the NOI, is now addressed under the Recreation/Access topic. The NOI indicated that the revised Forest Plan would address management direction regarding the gathering of miscellaneous forest products, even though special forest products were not included under a major revision topic. In this document, it is included under the “timber production” topic.

Forest Plan revision issues are those areas of forest management that were determined to need change as a result of more information about resource conditions, changes in resource conditions, new scientific and/or technical information, improved understanding of the results of the previous management direction due to monitoring and evaluation, and changes in public perceptions about what constitutes maximum net public benefit related to national forests. Addressing each item individually would normally result in a significant amendment to the Forest Plan. The resolution of these issues will change forestwide management direction, the mix of goods and services derived from the Forests, and environmental conditions existing on the Forests over the long-term.

The Purpose and Need addresses the following four topics and ten major forest plan revision issues:

Access and Recreation Opportunities

Problem #1—All-Terrain and Off-Road Vehicle Use/Motorized Use

Problem #9—Wilderness and Semi-Primitive Non-Motorized Areas

Biological Diversity

Problem #2—Aquatic Riparian and Wetland Ecosystems

Problem #3—Ecosystem Restoration

Problem #4—Landscape Pattern

Problem #5—Old Growth

Problem #10—Wildlife

Special Land Allocations

Problem #7—Special Land Allocation

Timber Production

Problem #8—Timber Production

Problem #6—Special Forest Products*

**As mentioned previously, the NOI indicated that the Forest Plan would address management direction regarding the gathering of miscellaneous forest products, although it did not include it under a major revision topic.*

Plan revision issues are addressed below by describing the current situation, expressing the problem with the current situation, and briefly describing how the revised plan will address each problem.

Topic: Access and Recreation Opportunities

Problem #1: All-Terrain and Off-Road Vehicle Use/ Travel Management

This issue is addressed by dividing the subject into two sub-sections: Off-road vehicle (ORV) use, and motorized access in general. Off-road vehicles are defined as any motor vehicle that can be operated cross-country, without benefit of a road or trail, over natural terrain. These include all-terrain vehicles, snowmobiles, motorcycles, and related 2-, 3-, and 4-wheel vehicles, as well as amphibious machines, hovercraft, and any other vehicles that use mechanical power, including 2- and 4-wheel drive (4WD) vehicles that are highway registered; etc.

All-terrain vehicles (ATVs) are one specific type of ORV, and are defined as an engine-driven device which has a net weight of 900 pounds or less, a width of 48 inches or less, a seat designed to be straddled by the operator, and is designed to travel on 3 or more low-pressure tires. For the purposes of this Plan, the definition of an ATV includes motorcycles that are designed to operate on two wheels, weigh 900 pounds or less, have a width of 48 inches or less, a seat designed to be straddled by the operator, and may or may not be street legal.

Current Situation, Introduction to the Issue

Areas on the Forests open to motorized access are generally extensively roaded. Motorized uses on the Chequamegon-Nicolet National Forests have a long history. People are accustomed to utilizing roads for traveling most parts of the Forests. During the past decade, under direction of the current Forest Plans, project level restrictions have been imposed to protect natural resources and primitive and semi-primitive recreation experiences in certain areas.

ORV use in general, and ATV use specifically, have risen steadily over the past two decades. Nationally, according to the 1999-2001 National Survey on Recreation and the Environment, about 17.5% of the population age 16 and older report they participate in off-road driving (Cordell et al, 2000). The Chief of the Forest Service included Unmanaged Recreation, especially the use of off-highway vehicles, as one of his “Great Issues” for Managing the National Forest System (Bosworth, 2003). Increased ORV use has created resource problems and user conflicts. For example, some four-wheel drive enthusiasts prefer rugged roads or trails that are infrequently maintained. Motorcyclists and ATV operators prefer well-maintained motorized trails or roads. Other people are disturbed by resultant impacts to soils, riparian areas, and wildlife habitat, as well as aesthetic impacts from motorized vehicle noise.

Current Situation—ATV and other ORV Use

The Chequamegon and Nicolet Forest Plans (1986) provide very different policies regarding access for off-road vehicles. The Chequamegon Plan puts few restrictions on ATV access to national forest land. The Forest is open for this use unless specific areas, roads and/or trails are posted closed. The Nicolet Plan ATV policy is that all areas, roads and/or trails are closed to this use unless they are posted open. Since there are no areas and very few routes posted open to ATVs, the Nicolet is essentially closed to ATV use. Exceptions for administrative use and persons with disabilities were made on the Nicolet National Forest on a case-by-case basis.

Neither policy provides adequate management tools for addressing the current demand for ATV and other ORV use, or the potential resource impacts from such use. ATV use on the Chequamegon and demand for ATV access on the Nicolet have both increased dramatically since the Forest Plans were signed in 1986 (WDNR, 1998 and 1998a in the Forests’ ATV Analysis of the Management Situation). Relatively unrestricted ATV use on the Chequamegon has resulted in unacceptable resource damage and occasional conflicts with other recreation activities. Illegal ATV use on the Nicolet is an increasingly prevalent problem. Some township governments are designating town roads as ATV routes on both Forests. The different policies cause considerable confusion among the public about what uses are permitted and where each policy applies.

Relatively few public concerns have been expressed about snowmobile use on the Chequamegon-Nicolet National Forests. The most common issue is a general concern about the identification and reservation of additional semi-primitive non-motorized areas on the Forests where motorized recreation is prohibited. There does not appear to be any significant demand for changes to existing snowmobile management direction.

Recreational use of four-wheel drive (4WD) vehicles has increased. Challenging opportunities for 4WD users are dependent on the availability of designated trails and open, low standard roads. There is currently one designated route for four-wheel drive (4WD) off-road use on the Nicolet. The 2004 Forest Plan addresses 4WD issues separately from ATV issues.

Problem—ATV and other ORV Use

The existing Forest Plans provide widely disparate policies regarding access for off-road vehicles. Neither policy appears to provide adequate management tools for addressing either the demand for off-road vehicle use or the potential resource impacts of such use. Four-wheel drive user groups have requested additional designated off-road trails. A consistent policy between Forests, as well as coordination with state regulation, is needed to provide for off-road use and new direction is needed to address impacts to resources. Consideration also needs to be given on how to respond to the expressed desire for more designated four-wheel drive trails.

Forest Plan Revision—ATV and other ORV Use

The 2004 Forest Plan provides direction for a consistent, enforceable forestwide policy that addresses the needs of ATV users, prevents unacceptable resource damage, and minimizes conflicts with other recreation activities. The 2004 Forest Plan addresses ATV/ ORV use issues and needs by:

1. Providing a variety of quality motorized recreation opportunities;
2. Prohibiting off-road, off-trail (cross-country) ATV use;
3. Addressing past, present, and potential future ATV use resource damage by identifying the suitability of various parts of the Forests for ATV trail construction;
4. Minimizing user/management activity conflicts, and conflicts between motorized and non-motorized recreation uses by developing Standards and Guidelines that restrict ATV use to designated trails and roads and limit locations of new trail construction;
5. Allowing ATV use on designated forest roads;
6. Determining the upper limits of ATV trail construction that is needed; and
7. Setting parameters for continued use or relocation of an existing 4-wheel-drive vehicle route as well as setting upper limits for new construction of similar routes.

Current Situation—General Motorized Access

The current Forest Plans are inconsistent in road descriptions, total road density designations, and Management Area Prescriptions. The Chequamegon Plan inventoried only “system” roads, while the Nicolet Plan included all roads and was more detailed in its descriptions.

In 2000, the Forest Service adopted a new transportation policy in an effort to develop an effective and economically efficient transportation system on national forests. Under the new policy, national forests must conduct a roads analysis when it is likely that road management decisions could affect access or produce negative environmental effects. This analysis would be interdisciplinary and would gather detailed information to identify resource problems related to the transportation system.

The CNNF performed a forestwide roads analysis of high standard roads (Maintenance Level 5, 4, and 3) in 2002 that has informed Plan revision efforts. One outcome of the analysis was to recommend policies guiding the management of forest transportation systems, including reduced natural resource impacts and/or better designs or locations to meet access and efficiency needs.

The roads analysis process has led to consistent terminology across the Forests for various types of road corridors, enabling detailed corridor inventories. The application of technology such as Global Positioning Systems and spatial GIS databases has improved information accuracy. Improved road inventories have shown the existing total road density on the Nicolet to be higher than estimated in 1986, despite accomplishment of road decommissioning/obliteration objectives during the implementation of the 1986 Plans. On the Chequamegon, existing average total road density is somewhat lower than 1986 estimates

The current Forest Plans assume that lower densities of open roads in some areas on the Forests would improve the recreational experience for people seeking solitude and remote recreation experiences. In the past, as road miles were closed to vehicles to meet Semi-Primitive Non-Motorized use objectives, incidents occurred where people traveled around gates or other closure devices to operate motorized vehicles within non-motorized areas.

Problem—General Motorized Access

While both 1986 Forest Plans included a goal of eventually reaching an average total road density on the Forests of 3.0 miles/square mile, the assumptions used to develop total road density figures were not consistent. Total and open road density guidelines need to be designed and applied to the Forests in a consistent manner, based on Recreation Opportunity Spectrum inventories and roads analysis, such that the Forests have safe, effective, and efficient transportation, and provide recreational experiences desired by forest users.

In addition, actual road density figures exceed the 3.0 miles/square mile goal on both Forests. Spatial allocation of open and total road density upper limits for the Forests needs to guide project level transportation system decisions.

Forest Plan Revision—Motorized Access

The 1986 goal of achieving 3.0 miles per square mile forestwide total road density remains in place in the 2004 Forest Plan. In order to provide guidance for road decommissioning that would, over time, help move the Forests toward that goal, the Recreation Opportunity Spectrum (ROS) classification system and ecological restoration concerns were used to zone the Forests by desired road density. Each zone was assigned a road density “upper limit” that would determine the maximum possible miles of road in a given area. Road density zones were developed for both open road density and total road density. Open road density refers to the miles of Forest Service road open to the driving public per square mile of national forest land. Open road density zones of 0.0 miles/square mile, 2.0 miles/square mile, and 4.0 miles/square mile were developed and assigned to the Forests. Total road density refers to the miles of open and closed roads under all jurisdictions per square mile of national forest land. The total road density zones are 0.0 mile/square mile, 3.0 miles/square mile, and 4.0 miles/square mile.

In some cases, road density zones coincide with management area allocation, such as potential Wilderness (MA 5B) and Semi-Primitive Non-Motorized area (MA 6A and 6B). Each of these management areas is closed to public motorized vehicles, with an open road density upper limit of 0.0 miles/square mile.

In other cases, the road density of an area is assigned separately from the management area allocation. Management Areas 1-4, for example, do not have guidelines regarding road density of the area. The upper limit(s) for road density in these management areas

are assigned based on ecological restoration concerns, the ROS classification of the area, and the desired future condition for the area. Depending on conditions, these management areas, or portions of these areas, may be assigned an open road density of 0.0, 2.0, or 4.0 miles/square mile or a total road density upper limit of 0.0, 3.0, or 4.0 miles/square mile.

The open road density upper limits, as they are applied to the management areas or portions of the management areas, are displayed on the Alternative maps in the accompanying map set. The area assigned to the various road density designations varies across the alternatives to provide a range of motorized and non-motorized experiences.

Priority for road decommissioning to move toward meeting forestwide average road density goals would be as follows:

1. Decommissioning of a road that is contributing to the resource degradation.
2. Re-route of an existing road with obliteration of the old corridor.
3. Decommissioning roads to meet average forestwide road density goals.

Standards that describe levels of decommissioning are also included in the 2004 Forest Plan.

Problem #9: Wilderness and Semi-Primitive Non-Motorized Areas

Current Situation

Designated Semi-Primitive Non-Motorized (SPNM) areas and Congressionally-designated Wilderness are intended to provide visitors with a remote experience free from the presence and sounds of motorized vehicles. The Chequamegon-Nicolet National Forests provide one of the few places in Wisconsin with a land area large enough to provide the seclusion needed for quality non-motorized experiences. According to some national recreation activity surveys, future national forest visitors will increasingly demand remoteness and solitude experiences (USDA FS 1995 in SPNM AMS and Cordell et al 1990).

The 1984 Wisconsin Wilderness Act directs the Department of Agriculture to “review the wilderness option when the plans are revised, which revisions will ordinarily occur on a 10-year cycle, or at least every 15 years” [Section 5 (b) (2)].

The 1986 Chequamegon Forest Plan increased semi-primitive non-motorized (SPNM) recreation opportunities and attempted to minimize conflicts between motorized and non-motorized activities. However, because of the cross-country (off-road, off-trail) ATV policy on the Chequamegon, SPNM and Wilderness areas are basically the only places on the Forest where non-motorized experiences are currently available. During the past decade, the Chequamegon reported nearly twice as much SPNM area use as was anticipated (USDA FS 1998c p 10). Opportunities for quality non-motorized recreation experiences could diminish as SPNM use increases (USDA FS 2001a).

Because ATVs and other ORVs are not allowed on the Nicolet under the 1986 Forest Plan, some quality non-motorized recreation opportunities are currently available outside of SPNM and Wilderness areas. The Forest also provided some specific recreation opportunities within semi-primitive motorized areas. During the past decade, the Nicolet reported slightly less SPNM and Wilderness area use than was anticipated.

Problem

Feedback from the recreating public suggests that the existing Forest Plans underestimated the quality of non-motorized recreational opportunities necessary to meet user demands (USDA FS 1998c), especially given the current increase in ATV use. Comments from the public indicated they had difficulty finding areas free of mechanized sights and sounds.

In addition, the 1986 Plans allowed timber harvest within SPNM areas with some restrictions. The timber activities permitted by the Plans, in conjunction with extensive timber harvest of the Great Lakes forests at the beginning of the 20th Century, resulted in little difference between the appearance of SPNM areas and the rest of the Forests, and thus a lack of wild character and primitive feeling desired by users in such areas. New direction is needed to provide a range of quality non-motorized recreation opportunities, including those that emphasize remoteness, solitude, and wild character.

Forest Plan Revision

Alternatives for the revised Forest Plan address a range of quality non-motorized recreation opportunities that emphasize remoteness, solitude, personal challenge, and the absence of motorized vehicles. The alternatives address this through forestwide Standards and Guidelines and through a range of potential new non-motorized areas.

Using a forest inventory based on ROS classifications, SPNM areas were identified and assigned to one of the following classifications in each alternative:

- **Management Area 6A**—SPNM, high quality, very limited timber harvest with special restrictions, Open Road Density=0 mi/sq mi, Total Road Density, =0 mi/sq mi
- **Management Area 6B**—SPNM, medium to high quality, limited timber harvest, Open Road Density=0 mi/sq mi, Total Road Density=up to 3 mi/sq mi

In addition to the SPNM classifications, an additional classification unique to the Chequamegon-Nicolet was developed:

- **Non-Motorized with full vegetation management (NM)**— applied to portions of Management Areas 1-4, fully managed forest, Open Road Density=0 mi/sq mi, Total Road Density=up to 3 mi/sq mi.

The Chequamegon-Nicolet National Forests inventoried and evaluated all areas on the Forests which met criteria for potential Wilderness areas, in accordance with 36 CFR 219.17(a). Eight areas met these criteria, and the 2004 Forest Plan recommends 3 of these areas for Wilderness study (MA 5B). See “Access and Recreation Opportunities—Wilderness” in Chapter 3 for more detail. This recommendation is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. The Congress has reserved the authority to make final decisions on Wilderness designation. Therefore, this Wilderness recommendation is not appealable under the agency's administrative appeal procedures.

Topic: Biological Diversity

Problem #2: Aquatic, Riparian, and Wetland Ecosystems

Current Situation

Forest aquatic resources are diverse and abundant. The Forests have 16 fourth level watersheds, 2,020 lakes, approximately 2,000 miles of streams (including 1,382 miles of Class I, II, & III trout streams), approximately 75,000 acres of riparian habitat, and 347,000 acres of wetlands. Forest management activities can have potentially significant effects on basic watershed functions and lake, stream, wetland, and groundwater quality. The Forest Service's Strategic Plan (2000 revision) establishes key objectives for national forest management with a strong emphasis on maintaining and restoring watershed health.

The 1986 Chequamegon and Nicolet Forest Plans would benefit from: 1) a more robust treatment of key issues associated with aquatic, riparian, and wetland ecosystems; 2) increased reference to watershed management; 3) goals and objectives for riparian areas, wetlands, and water quality; and mitigation measures for other activities within these areas; 4) improved direction for specific aquatic resources, issues, and management activities; and 5) identification of Desired Future Conditions (DFCs) for aquatic, riparian, and wetland ecosystems.

Problem

The existing Forest Plans do not describe a desired future condition for aquatic resources. Goals and Objectives, as well as forestwide and management area Standards and Guidelines, are needed to provide clearer direction on the management, protection, and restoration of watersheds and individual aquatic, riparian, and wetland ecosystems.

Forest Plan Revision

Goals, Objectives, and forestwide and management area Standards and Guidelines for aquatic resources have been developed and applied across Alternatives 2-9 and the Selected Alternative. They work to move toward reaching the desired condition for watersheds and aquatic resources. (Alternative 1 retains the goals, objectives, standards, and guidelines of the 1986 Plans.) The desired condition for aquatic, riparian, and wetland ecosystems is included in its entirety at the end of Chapter 3 of the 2004 Forest Plan. A summary is included below:

- **Watersheds.** Healthy watersheds are resilient in the face of natural events and capable of absorbing the effects of human disturbances. They function properly by absorbing rain, recharging groundwater, providing favorable conditions of water flows, dissipating floods, and connecting headwaters to downstream areas and wetlands. All forest watersheds are assessed to determine their condition with regard to soils, riparian habitat, aquatic habitat and the quantity, timing and quality of flows. Conditions are restored or enhanced as needed.
- **Riparian ecosystem habitat.** Riparian corridors bordering streams and lakes have intact structure, function, and composition and serve as landscape connectors. Floodplains have little or no development and store and transmit floodwaters with a minimum of risk to human safety and property. The terrestrial component of riparian areas consists of a diversity of vegetation that compares favorably with estimates of range of natural variability (variation of physical and biological conditions within an area due to climatic fluctuations and disturbances of wind, fire, and flooding). The

diversity and abundance of wetlands are maintained or restored over time. National Forest shoreline ownership on lakes and streams is maintained or increased over time.

- **Aquatic ecosystem habitat.** The composition and productivity of biological communities in streams and lakes are not limited by reductions in water quality. Water temperatures, sediment, nutrients, and dissolved oxygen are within normal ranges for the valley segment, stream reach, or lake type. Streams are maintained or restored for natural functions and processes such as water and sediment transport within the normal ranges for the watershed. Stream flows are sufficient to maintain channel integrity and support aquatic biota. Most Class I and II trout streams are in a free-flowing condition to provide suitable habitat for cold-water stream communities.
- **Aquatic communities.** Provide a healthy fishery where ecological potential exists to offer angling opportunities for the public. Habitat management and access are coordinated with Wisconsin Department of Natural Resources (WDNR) harvest regulations to maintain healthy fish populations and aquatic communities. The diversity and abundance of native aquatic flora and fauna are maintained or restored in most streams and lakes consistent with the ecological capability of the water body. Exceptions include cases where game fish such as brown trout have become naturalized or where the Wisconsin DNR prescribes and stocks game fish for angling opportunities.

Problem #3: Ecosystem Restoration

Current Situation

Current Chequamegon and Nicolet Forest Plans provide very little ecosystem restoration direction. Restoring deteriorated ecosystems is one of the primary goals of the Forest Service's "*Course to the Future*." The Forest Service's Strategic Plan (2000 revision) recognizes that maintaining or restoring sustainable forest ecosystems is an important mission element. In 1990, the Chief of the Forest Service directed the Chequamegon and Nicolet National Forests to establish a "Committee of Experts" to address biological diversity. A Scientific Roundtable on Biological Diversity was convened on September 20-23, 1992. Roundtable members provided advice for ongoing implementation of the 1986 forest plans and for future forest plan revision. The committee identified the following major factors that impact elements of biological diversity and ecosystem sustainability: 1) changes in natural disturbance regimes and landscape-level processes, such as fire suppression and changes in location, frequency, and size of forest openings; 2) landscape level fragmentation and direct human effects, such as edge effects and introduction of exotics; 3) direct consequences of forest management policies, such as inadequate or inconsistent use of ecosystem restoration knowledge; and 4) regional and global threats (Crow et al 1994).

The 1976 National Forest Management Act states that national forests must "provide for the diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple use objectives." Further direction concerning species diversity is found in 36 CFR 219.27(g):

"Management prescriptions, where appropriate and to the extent practicable, shall preserve and enhance the diversity of plant and animal communities... so that it is at least as great as that which would be expected in a natural forest, and the diversity of tree species similar to that existing in the planning area. Reductions in diversity of plant and animal communities and tree species from that which would be expected in natural forest, or from that similar to the existing diversity in the planning area, may

be prescribed only where needed to meet overall multiple use objectives. Planned type conversions shall be justified by an analysis showing biological, economic, social, and environmental design consequences, and the relation of such conversions to the process of natural change.”

With regard to population viability, 36 CFR 219.19 states:

“Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.”

Viable population habitat determinations are made at the forest level during preparation of the forest plan. Forest managers provide for species diversity and viability by managing for a mix of habitats on a landscape and site level. This task can be accomplished by activities such as managing for both large and small vegetative patches, providing for snags and coarse woody debris, and regenerating a variety of tree species. Appropriate strategies are also developed for maintaining sensitive plant species.

Curtis (1959), Finley (1976), Padley (1999), and Mladenoff and Pastor (1993) estimated vegetative species and patterns present before European settlement. The pre-European settlement landscape was most likely a complex patch mosaic of differing forest types and ages. The smaller forest patches of today contain fewer species maintained at “truncated successional stages” (Pastor and Borschart 1990; Frelich and Lorimer 1991; Mladenoff and Pastor 1993). Terrestrial ecosystems that formerly dominated the landscape but are now underrepresented are pine barrens, pine forest, and northern hardwood interior forests.

Problem

Ecosystems historically present on the Forests consisted of age class distributions, species composition, and structural characteristics that are different from those of today. Maintenance and/or restoration of components of ecological composition, structure, and function are needed to increase the likelihood of sustaining local ecosystems and, in turn, provide for maintenance of the diversity of plant and animal communities native to this area. In some cases, the maintenance and restoration of these ecological characteristics also contribute to maintaining viable populations of native and desired non-native wildlife, fish, and plant species. The 1986 Plans provided little explicit direction on ecosystem sustainability, and new information since 1986 demonstrates the need for heightened and/or changed direction.

Forest Plan Revision

Based on changing public values and new knowledge and information, the Forests would maintain, improve, or restore the composition, structure, and function of some early and mid-successional forested ecosystems, some late successional mesic forested ecosystems, and some non-forested natural communities (pine barrens).

Forest ecosystem restoration problems are addressed by efforts to restore naturally occurring terrestrial and aquatic ecosystem components and rare, declining, or absent processes. A variety of ecosystems can be sustained by maintaining viable, well-distributed populations of native and desirable non-native plants and animals. The 2004 Forest Plan describes ecosystem restoration efforts that contribute to the recovery of threatened and endangered species, protect species at risk, and reestablish a range of early, mid, and late successional forested ecosystems by restoring: 1) northern hardwood interior forest structural and composition components and landscape patterns that benefit species with population viability risks; 2) regionally rare mature natural red/white pine

forest communities; 3) globally-imperiled pine barrens that have plant and animal species population viability risks; and 4) forest old growth communities where they are rare or where there are structural deficiencies.

Management Area 2B places the most emphasis on northern hardwood interior forest. Management Area 4B places the most emphasis on red and white pine forest communities, while Management Areas 8C and 4C provide the most emphasis on barrens and open land communities. Varying allocation of these and other management areas provide variation across alternatives in the amount and speed of achieving characteristics of natural vegetative communities. See Chapter 3 of the 2004 Forest Plan for more details on management area prescriptions.

Problem #4: Landscape Patterns

Current Situation

Landscape pattern is the term most commonly used to describe the arrangement of species and communities in a natural setting. Landscapes have three structural components: **matrix**--the most connected portion of similar vegetation within the landscape; **patches**--isolated portions of similar vegetation within the matrix; and **corridors**--relatively narrow areas that connect patches (Diaz and Apostol 1992). Very small patches, such as the size of a tree canopy gap in a forest, provide important habitat components for some species such as magnolia warbler (Howe et al, 1995). Large patches can improve species viability by decreasing dispersal distance and increasing the likelihood of mating (Primack 1993). Greater diversity of habitat-specific species occurs as patches become larger (Primack 1993).

The 1986 Forest Plans do not directly address landscape patterns. Landscape structure and composition is only addressed as a side effect of prescribed management activities. Widespread historical harvest and the existing Forest Plans' emphasis on even-aged management, early successional forest types, and edge habitat have generally resulted in a small patch landscape pattern. Large patches and interior conditions are generally lacking, and old growth patches are small and isolated. Ecosystems and species that were once common or dominant, such as hemlock, are now rare. Conversely, once uncommon species like aspen are now commonplace. This situation is outside the estimated range of variation described in Appendix D for both the size and distribution of patches and the mix of forest types and successional stages. A vegetation pattern of disconnected patches impacts many species that react negatively to large amounts of forest edge or isolated stands.

Problem

Current standards and guidelines for both 1986 Plans address biological diversity by increasing species variety through edge habitat creation and the strategic placement of forest vegetation types. The level of even-age management and emphasis on early successional forest types has resulted in a landscape pattern where small patches dominate. The emphasis on disconnected patches impacts many species that react negatively to large amounts of forest edge.

Forest Plan Revision

The 2004 Forest Plan describes desired future conditions that include landscape composition and structure as objectives. The revised Plan modifies long-term landscape patterns by:

1. Emphasizing areas that maintain interior forest conditions;
2. Restoring large patches across the landscape;
3. Increasing mid to late successional forest habitat (forestwide and in concentrated blocks);
4. Decreasing interspersion of late successional habitat with early successional habitat (where appropriate);
5. Increasing attention on providing connections between landscapes and/or patches; and
6. Restoring formerly dominant forest types such as white pine.

These are accomplished by allocation of management areas with prescriptions that emphasize large block management. These include Management Areas 2A, 2B, and 3B, which emphasize large patches of northern hardwood interior forest, and Management Area 4B, which emphasizes large patch management within pine communities. (See Chapter 3 of the 2004 Forest Plan for more details.)

Problem #5: Old Growth

Current Situation

Recent ecological research indicates that the northern portions of the Great Lakes States were formerly characterized by extensive old growth forest. Old growth forests provide a variety of important ecological functions such as high quality habitat for some species of plants and animals, source areas for populations of some species, and soil and water conservation areas. Old growth areas can also serve as reference sites for ecological research and control sites for monitoring the effects of forest management practices and environmental changes.

The historical precedent for the Forests' potential change in old growth direction was the Scientific Roundtable on Biological Diversity. Roundtable scientists recommended reserving more old growth and managing it with an ecological emphasis. The subject of old growth management was also an issue of public concern. Numerous public comments received during appeals of the 1986 Forest Plans, public scoping responses for project-level analyses, and public comments in response to the Forests' Notice of Intent favored increased attention to old growth management.

The Chequamegon and Nicolet National Forests identified and reserved some old growth areas in the years since the 1986 Forest Plans were approved. The Chequamegon and northern Nicolet districts did not formally designate areas with NEPA decisions, but recognized proposed areas as a part of desired future conditions described in opportunity area analyses. In portions of the Nicolet National Forest, old growth areas were designated through project level NEPA decisions and described as "Managed Old Growth", implying that such stands would be harvested at some time, albeit well beyond normal rotation age.

Problem

The 1986 Plans do not consistently define old growth, nor does the management direction incorporate an updated definition of old growth or recognize the significance of old growth to ecological sustainability. Consistent criteria need to be developed for old growth, including desired spatial and temporal arrangement of existing and developing old growth, and identification of the relevant characteristics needed to aid in the inventory and designation of old growth areas.

Forest Plan Revision

The 2004 Forest Plan reflects the ecological importance of old growth and allocates old growth areas based on present characteristics and spatial distribution. Old growth natural feature complexes are included in the old growth designations. Such complexes consist of several vegetative communities that normally occur in concert, such as northern hardwood-dominated drumlins, next to hemlock forest on slopes, transitioning into black ash swamps in interdrumlin areas. Management Area 8G provides direction for old growth management and varies in allocation across Alternatives 2-9 and the Selected Alternative. See Chapter 3 of the 2004 Forest Plan for more detailed description.

Problem #10: Wildlife Habitat

Current Situation

The abundance and distribution of forest wildlife primarily depends on the amount, distribution, and quality of habitat. Wildlife habitat is comprised of vegetation types and vegetative/land structural features such as dead trees, water bodies, and man-made structures. The need to change the existing wildlife management direction provided by the 1986 Plans developed with our increasing knowledge of wildlife habitat relationships, wildlife population status changes, and increasing public concern and input during forest plan implementation.

There are several wildlife issues that are best addressed at a Forest level. The 1986 Chequamegon and Nicolet Forest Plans show some inconsistencies in management of Federally Threatened or Endangered species. They are inconsistent in providing management guidance for some species on the Regional Forester's Sensitive Species list as well. Guidelines to maintain coarse woody debris need to be updated for consistency and to encompass new information. New information related to the value of small permanent wildlife openings and their spatial arrangement on the landscape need to be incorporated into the revised forest plan.

The Chequamegon-Nicolet National Forests provide habitat for over 300 species of vertebrate animals and a large unquantified number of invertebrates. A number of these species are categorized as threatened, endangered, or sensitive at national, regional, or state levels. Other species are hunted, trapped, or enjoyed in non-consumptive ways. The 1986 Forest Plans emphasize desired future conditions for vegetation and other features that primarily benefit early-successional habitat dependent wildlife species. The existing Plans do not adequately ensure the distribution, abundance, and quality of desired habitat types and features needed to meet the requirements of some wildlife species dependent on mature forest. Changes in social values regarding wildlife and wildlife-related recreation, as well as a new understanding of the suitability of some landscape habitat features, are reflected in the revised management direction of the 2004 Forest Plan.

Problem

The 1986 Forest Plans are inconsistent in direction for management of Threatened, Endangered, and Sensitive species, as well as in direction for certain structural components like reserve trees. The existing Plans tend to focus on early successional species and habitats and do not sufficiently provide for area-sensitive or edge-sensitive species.

Forest Plan Revision

An analysis of existing direction for the 1986 Forest Plans, current resource conditions, and new information helped shape Forest Plan revision alternatives and provided updated

wildlife management direction. The 2004 Forest Plan provides new or updated direction for:

1. Managing permanent openings;
2. Reserving adequate amounts of standing and downed dead woody material;
3. Expanding the Riley Lake Wildlife Management Area to provide additional upland shrub/grassland habitat needed to meet sharp-tailed grouse population objectives;
4. Expanding the Moquah Barrens area to provide habitats for a variety of species;
5. Providing for the recovery and viability of “Regional Forester Sensitive Species”; and
6. Designing a landscape pattern that includes some large patches of vegetation to provide habitat for area sensitive species.

Topic: Special Land Allocations

Problem #7: Special Land Allocations—Research Natural Areas and Special Management Areas

Current Situation

Research Natural Areas (RNAs) are maintained in their natural condition and provide opportunities for monitoring natural processes, studying ecosystems and their component parts, and investigating successional and other long-term changes. Special Management Areas (SMAs) have outstanding natural, historical, or recreational features and are also maintained in their natural condition. RNAs and SMAs identified for their ecological characteristics maintain and protect unique ecosystems, processes, and rare or sensitive plant and animal species and habitat.

The 1986 Chequamegon Plan identified 10 candidate RNAs. Six of those areas have since been designated as RNAs. The remaining 4 areas were recommended for SMA designation. Of 18 candidate RNAs identified on the Nicolet, 3 were designated RNAs and 8 were designated as Special Management Areas. Of 71 candidate Special Management Areas on the Nicolet, 9 were formally designated as SMAs via project level decisions. The areas chosen as RNAs or SMAs under the 1986 Plans were generally small areas of unique habitat. With the Moquah RNA, designated before 1986, and the Fairyland RNA, part of a land acquisition, the Chequamegon-Nicolet has 11 designated RNA's.

More recently the Eastern Region of the Forest Service developed a process for identifying candidate RNAs that includes consideration of the representation of natural communities across ecological units. In addition, an inventory and analysis process called Landscape Analysis and Design (LAD) was carried out on the Forests. The LAD process involved inventory of vegetative communities that provide representation of historic vegetation on various Land Type Associations. Once inventory was complete, the areas were analyzed to ultimately provide a system of vegetative community complexes that characterize the natural variation across the Forests.

Problem

Existing RNAs do not make use of the framework developed in draft form by the Eastern Region of the Forest Service to establish a network of representative ecological reference areas. The existing and candidate RNAs and SMAs do not represent a wide range of vegetative communities, limiting their value as reference areas. In addition, the existing

areas are small, isolated, and are not integrated into a systematic network of reserves where proximity, continuity, and presence of connecting corridors are coordinated. Finally, the 1986 Plans do not provide for management area prescriptions or guidelines for most RNAs and SMAs or display RNA/SMA locations on a map so that areas can be easily identified for monitoring and evaluation purposes.

Forest Plan Revision

The 2004 Forest Plan identifies specific candidate RNAs and designates SMAs by providing management area prescriptions 8E and 8F for RNAs and SMAs, respectively. The management area prescriptions include specific standards and guidelines to direct management. Identification of these areas takes the following into account:

1. Representation of vegetative communities found historically on the landscape,
2. Coordination of areas into a systematic network of reserves,
3. Makes use of the Eastern Region's RNA draft selection framework, and
4. Includes areas with outstanding scenic, recreational, geological, botanical, zoological, paleontological, and historical features as SMAs in addition to those with ecological value.

Topic: Timber Production

Problem # 8: Timber Management

Current Situation – Timber Production

The Chequamegon National Forest identified 700 million board feet as its Allowable Sale Quantity (ASQ; maximum allowable harvest over a ten-year period) for the first decade of its 1986 Plan. The Nicolet National Forest identified a first decade ASQ of 970 million board feet. The Chequamegon harvested nearly 99% of its ASQ in the first 10 years of plan implementation, averaging the sale of approximately 69 million board feet per year. The Nicolet produced annual timber outputs as high as 90 million board feet at the start of the decade, but outputs later dropped as low as 33 million board feet. Annual timber outputs averaged approximately 71 million board feet per year in the first decade of Plan implementation, or approximately 73% of the ASQ.

For the two Forests combined, the average annual ASQ estimated for the second decade, 1996 to 2005, was 186 million board feet. The average combined annual sale quantity of the two Forests from 1996 through 2001 has been 106 million board feet per year.

In the 1986 Plan, the Chequamegon determined that it had more acres of forestland "tentatively suited" for timber production than it needed to meet demand. However, the Chequamegon timber volume actually produced per acre was lower than that predicted in the 1986 Plan, resulting in the need to enter more acres into production in order to meet the expected outputs. While the average annual output was near Plan predictions, the acres entered were higher, and the mix of species-products was much different than predicted because of the considerable difference between on-the-ground conditions and those envisioned in the Plan.

On the Nicolet, timber harvest volume produced per acre entered was close to that predicted in the 1986 Plan. However, the number of acres available for entry was found to be less than predicted. The Nicolet National Forest's 1991 ASQ Situation Report states that the acres of land actually suited for timber harvest were fewer than originally thought for a variety of reasons, including the following:

- Acres of recreation sites and roadways were greater than predicted (acres not available for timber production);
- Acres within wild and scenic river corridors were included within the estimate of suitable acres, resulting in an overestimate of acres administratively available to produce timber; and
- Implementation of Standards and Guidelines resulted in more acres effectively “unsuited for timber harvest” than was predicted.

In addition, some of the suitable timberland on the Nicolet experienced high mortality and reduced growth due to insects, disease, and drought. This temporarily reduced net growth below predicted levels and left a considerable number of suitable acres temporarily short of operable volumes.

Demand for timber products has increased significantly since the forest plans were approved in 1986. From 1983 through 1995, according to Forest Inventory and Analysis (FIA) data, the Chequamegon-Nicolet National Forest provided about 7.5% of the timber harvested in Wisconsin. Since 1986, the Chequamegon-Nicolet National Forests’ timber stumpage prices across all species and products have increased dramatically. From 1986 to 2001, average stumpage price increased by nearly 500% from \$14.93/mbf to \$70.99/mbf. Considering the relatively small proportion of the statewide timber production provided by the Forests and the continuing increase in stumpage price, the prediction is that demand will remain high and will be relatively elastic on the Forests, meaning that the competitive price will be primarily driven by the broader marketplace and not by output levels from these Forests. This is in contrast to the situation in 1986 when it was determined that the ability to supply timber was beyond demand levels at that time.

Forest planning regulations require a review of lands to determine if they are both physically suited for timber harvest and are located in areas where timber harvest is appropriate. The final estimate is often referred to as suited acres or acres suitable for timber management. The number of suited acres is one of many factors used to determine future timber outputs in a forest plan. The second major factor is an estimate of volume that will be produced per acre of land. These and many other factors related to expected growth and predicted management techniques are combined into a linear model that predicts an Allowable Sale Quantity (ASQ) for the forest in the future by decade.

Current Situation – Silvicultural Prescriptions and Vegetation Types

As described above, the Forests have a current need to change the timber resource management direction and capability estimates for providing a long-term sustainable timber program. At the same time, the Forests need to maintain, improve, or restore the health of the local forest ecosystems to provide for diversity of plant and animal communities (Forest and Rangeland Renewable Resources Planning Act of 1974) and to maintain viable populations of all existing native and desired non-native plants, fish, and wildlife species in the planning area (36 CFR 219.19). The Agency's Strategic Plan (2000 Revision) identifies the need to manage for sustainable forest ecosystems as a part of meeting these natural resource objectives. Achieving sustainable forest ecosystems involves the conservation and restoration of ecosystem structure, composition, and processes.

In response to the Chief of the Forest Service’s direction, a committee of scientific experts was convened in 1992 to discuss conditions and management on the Forests that related to biological diversity. The results were published in a 1994 document, *"Report*

on the Scientific Roundtable on Biological Diversity Convened by the Chequamegon and Nicolet National Forest," (General Technical Report NC-166) that identifies impacts on biological diversity due largely to historical changes in the forest ecosystems, including habitat fragmentation and modification of forest structure and composition. The report offered recommendations for modifying management to support long-term goals of providing for species diversity and viability. These recommendations include proposed management changes such as: reducing habitat fragmentation; maintaining the full spectrum of ecosystems characteristic of northern Wisconsin; and restoring a wide range of forest types, stand ages, and size classes within the Forests (structure and composition).

The Scientific Roundtable recommendations, combined with new information related to maintaining or restoring biological community diversity and maintaining species viability, indicate a need for changes in forest management methodologies. These needed changes include adjustments in silvicultural prescriptions, long-term structural and compositional goals, and forest type allocations across the landscape.

Problem

Past assumptions used for identification of suitable lands and growth and yield estimates need to be updated with new information to provide an accurate prediction of the Forests' long-term capabilities to produce timber products.

Forest management methodologies need to be revised to provide for the full diversity of plant and animal communities and to maintain viability of species existing on the Forests. Needed changes include structural and compositional goals of forest stands, allocations of forest types across the Forests, and silvicultural prescriptions applicable to different land areas and forest types.

Forest Plan Revision

New, more nearly accurate assumptions are being used to estimate expected growth and yield of timber products as well as to identify acres suited for timber production.

Silvicultural prescriptions have been modified to provide a wider range of silvicultural options for developing needed changes in forest structure and composition (2004 Forest Plan, Chapter 2). These treatments are allocated across the landscape in ways that will increase the representation of native ecosystems, reduce habitat fragmentation, provide biological community diversity, and increase the likelihood of viability for the species found within the planning area.

Problem #6: Special Forest Products

Current Situation

Special forest products consist of items such as birch bark, birch stems, Christmas trees, pine cones, conifer boughs, firewood, maple sap, sheet moss, etc. that are gathered on more than an incidental basis, either for resale or other purposes. Special forest product gathering allows people to fulfill cultural needs, live off the land, and supplement their income. Some local industries and small businesses have expressed a dependence on these types of forest products. The demand for most special forest products is expected to increase in the future.

Demand for special forest products from members of federally recognized Indian tribes is also expected to increase. Historically, special forest products have been used by

American Indians for religious, ceremonial, medicinal, subsistence, and economic purposes. Moerman (1986) and Densmore (1928) have identified over 300 traditional use vascular plants used by the Great Lakes Region Chippewa Indians. A cooperative special forest products management approach will be needed as more and more tribal members exercise gathering rights reserved on national forest lands within ceded territories.

The 1986 Chequamegon and Nicolet Forest Plans do not provide direction or guidance for gathering special forest products.

Problem

There is demand for collection of special forest products, but there is no specific management direction to monitor, manage, and control such gathering.

Forest Plan Revision

The 2004 Forest Plan establishes special forest products goals, objectives, standards, guidelines, and monitoring direction. (See the 2004 Forest Plan.)

Issues and Topics Raised but Not Addressed

Several topics and issues raised by members of the public or other agencies are not addressed by the alternatives described in this document. Some of the concerns that were raised—for example, turning National Forest management over to county governments—require a solution that is either outside the scope of decisions made in a forest plan or that must be made by an agency or entity other than the Forest Service. If an issue cannot be resolved through the forest plan, it may be better handled by another channel—that is, through changes in national or regional policy, through changes in the law, in decisions made by other agencies, or in decisions made at the site specific, rather than the programmatic, level. Response to comments received on the Draft EIS and Proposed Plan can be found in Appendix A—Forest Plan Revision Issues and Public Involvement.