CHAPTER 1 - PURPOSE AND NEED FOR THE PROPOSAL

1.1 Document Structure

The Forest Service has prepared this Final Environmental Impact Statement (FEIS) in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This statement discloses the direct, indirect, and cumulative environmental impacts that could result from the proposed action and alternatives. This document is organized in seven parts:

Chapter 1, Purpose and Need for the Proposal: *This chapter includes information on the history of the project proposal, the purpose of and need for the project, the agency's proposal for achieving that purpose and need, the decisions that the District Ranger will make concerning this project, and identifies relevant laws, regulations, and policies with which the decision must comply.*

Chapter 2, Alternatives: *This chapter provides a detailed description of the agency's proposed action as well as details of the other three alternatives analyzed in detail. These alternatives were developed based on some of the major issues raised as well as the purpose and need for the proposal (Chapter 1). This chapter also includes project design and mitigation criteria to be implemented with the alternatives. Finally, this chapter provides a summary and comparison of the environmental consequences associated with each alternative.*

Chapter 3, The Affected Environment: *This chapter provides details about the project area (affected environment) specific to those resources which could be impacted by project implementation.*

Chapter 4, Environmental Consequences*: This chapter describes the detailed predictions of the environmental consequences resulting from implementing Alternatives A through D and is organized by resources identified in Chapter 3.*

Chapter 5, Consultation and Coordination*: This chapter identifies a list of preparers and a list of agencies and persons consulted in development of this statement.*

Appendices*: The appendices provide more detailed information to support the analysis presented in this statement*

Maps*: Maps of the project area and the alternatives are provided at the end of the appendices.*

Additional documentation, including more detailed analysis of project-area resources, may be found in the project planning record located at the Medford-Park Falls Ranger District Office in Medford, Wisconsin.

1.2 Background

1.2.1 Location

The Hoffman-Sailor West project area is located about 4 miles east of Fifield, Price County, Wisconsin. The project area is bounded on the north by State Highway 70, on the east by Forest Road (FR) 139 (Sailor Lake Road), on the south by the Forest boundary, and on the west by the Forest boundary. See the Park Falls Vicinity Map and the Project Vicinity Map for a graphic display of the project area. Maps are located at the end of this document.

A general legal description for the area is: Township 39 North, Range 1 East, sections 10-15, 22-27, and 34-36; Township 39 North, Range 2 East, sections 7, 18-19, 29-32; Township 38 North, Range 1 East,

sections 1-3, 10-15, 22-24; and Township 38 North, Range 2 East, sections 6-8 and 17-19; Fourth Principal Meridian.

1.2.2 Current Management Direction

The Record of Decision for the 1986 Chequamegon National Forest Land and Resource Management Plan (Forest Plan) assigned the project area a Management Prescription 1 designation. See Forest Plan pages IV-106 through IV-116. The primary vegetation management emphasis for this management prescription is: to produce aspen pulpwood through even-aged management and to emphasize habitat for wildlife species associated with pioneer vegetation.

The Squaw Creek Wildlife Management Area has been identified as an area that will be primarily managed for ruffed grouse. See the Special Management Areas Map for the location of this area.

Upper Squaw Creek Impoundment is within the wildlife management area and is managed primarily for the production of waterfowl. See the Lakes and Streams Map for the location of this impoundment.

1.2.3 Project History

A project in the same vicinity was originally presented to the public for review and comment (scoping) in September 1998 (Project Name: Hoffman Creek and Sailor Lake Opportunity Areas), prior to undertaking preparation of an Environmental Assessment (EA). In July 1999 an EA for the Hoffman Creek and Sailor Lake Opportunity Areas was sent to the public for a 30 day review and comment period.

Since then, part of the project area was identified as having potential to be included in a Forest inventory of roadless areas for the Forest Plan Revision. Since management activities could potentially impact roadless characteristics and potential Wilderness values, a choice was made to modify the project area boundary to exclude these areas until Forest Plan Revision was complete. Changes to the project area boundary resulted in the Hoffman-Sailor West project which is about half the area (about 22,000 acres) as the original project (about 40,000 acres).

In addition to a change in the project area boundary, a choice was made to develop additional alternatives that address issues related to forest fragmentation and to prepare an environmental impact statement (EIS). A Notice of Intent to prepare an Environmental Impact Statement appeared in the Federal Register on April 24, 2001. A Proposed Action (scoping document) was sent out for public review and comment on April 20, 2001. A Draft Environmental Impact Statement (DEIS) was prepared and sent out for review and comment on January 27, 2003.

1.3 Proposed Action

A variety of timber harvest and regeneration activities are being proposed with connected road construction and decommissioning proposals. In addition, existing waterfowl impoundments and some permanent wildlife openings are proposed for maintenance and some other roads are being proposed for closure or decommissioning.

Types of timber harvest being proposed include clearcut harvest, shelterwood harvest, overstory removal harvest, selection harvest and thinning harvest. Descriptions of these types of harvest can be found in Chapter 2, Table 2-2, ID#s 1 through 5. The proposed action (Alternative B) includes about 3300 acres of timber harvest. All of the timber harvest treatments would be accomplished through timber sale contracts. Timber harvesting equipment such as skidders, feller/bunchers, chippers, and haul trucks

would be used. Trees are felled and moved to a landing site for further processing (for chipping, loading, or storing temporarily). These landings would generally be placed within a stand being harvested or within an existing, nearby open area with road access. Some tree seedling planting will occur in areas prescribed for clearcut harvest, shelterwood harvest, and selection harvest. Planting projects consist of spot planting to maintain or replace specific tree species components in the landscape. Seedling mixes of red oak, white pine, hemlock, white spruce, and some red pine will be planted. The proposed action includes about 200 acres of tree planting.

Types of opening maintenance projects include treating vegetation with mechanical and prescribed burning methods. Descriptions of these types of opening maintenance projects can be found in Chapter 2, Table 2-2, ID#s 6 and 7. The proposed action includes about 70 acres of wildlife opening maintenance.

Waterfowl habitat projects include wild rice planting, water impoundment drawdowns, and duck nesting box placement. Descriptions of these projects are in Chapter 2, Table 2-2, ID#s 8 through 10.

Proposed road projects include construction, closure and road decommissioning. Descriptions of these projects are located in Chapter 2, Table 2-2, ID#s 11 through 14. Alternative B includes about 4 miles of road construction, about 8 miles of road closures, and about 28 miles of road decommissioning.

More specific information about the amount and type of treatments in the proposal and other alternatives can be found in Chapter 2 and Appendix D. Maps of the project activities for each of the action alternatives (B through D) can be found at the end of this document.

1.4 Purpose and Need for Action

The primary purpose of the proposed land management activities is to implement the actions consistent with direction in the Forest Plan and respond to other specific needs in the project area. Differences between the desired condition of the area and the existing condition are the basis for the need for developing project proposals.

The Forest Plan emphasis for the management of resources in the project area is: to produce aspen pulpwood through even-aged management and to emphasize habitat for wildlife species associated with pioneer vegetation (Forest Plan page IV- 106). The existing conditions of vegetation in the project area do not meet the desired conditions as described in the Forest Plan and other assessments. The most notable differences between the existing condition and the desired condition are in forest age and composition. The percentage of pioneer vegetation types in this area is at the lower range of the desired level and most of the pioneer vegetation has reached maturity. There is not enough vegetation in the younger age classes needed for the desired habitat conditions required for many of the wildlife species associated with pioneer forest types (aspen, balsam fir, and paper birch).

Sections 1.4.1 through 1.4.7 further describe the differences between the existing condition of the project area and the desired condition. Also included are the objectives for the project area and a brief identification of the projects that would address those differences.

1.4.1 Maintain Aspen Pulpwood Production

The amount of aspen pulpwood that can be produced in an area is dependant on the age of the existing aspen and on the overall amount of aspen in the project area. The objective in this management area is to have 35-65% of the area in aspen types (Forest Plan page IV-109). The Hoffman-Sailor West area is

at the bottom end of the Forest Plan range for aspen (36%). This is typical of many of the Management Prescription 1 areas on the Medford-Park Falls District. For instance, in the EA for the Hoffman Creek and Sailor Lake Opportunity Areas (which included the current project area and is within the same management prescription), aspen was at 33% (out of a project area of about 40,000 acres), just below the desired range. There is a need to increase the aspen in a manner consistent with Forest Plan objectives. For this reason, some paper birch, balsam fir, and hardwood stands, already containing a high percentage of aspen, are being proposed for conversion to aspen by clearcutting. See Table 1-1.

In order to have an even, sustainable flow of aspen pulpwood products over time, and to limit the amount of aspen pulpwood lost to decay, disease, or other age related factors, it is desirable to set limits on the amount and age of the aspen that is harvested in the next 10 years. Currently, about 46% of the aspen is over 40 years old (average mature age for aspen). Within the next 10 years, over 70% of the aspen will be over 40 years old and in a state of decline. Harvesting 15-25% of the aspen type in any given decade would maintain a fairly stable flow of aspen pulpwood over time. Aspen and balsam fir could reach pulpwood size by as early as 35 years of age; therefore, there is a need to limit harvesting stands younger than 35 years old while concentrating aspen harvesting in the older age classes. Furthermore, Forest Plan guidance (Forest Plan page IV-114) includes maintaining about 30% of the aspen type in the 0-20 year age class. Current aspen in the 0-20 year age class is about 13%. For these reasons, the proposals include aspen and balsam fir clearcuts in stands over 35 years old.

1.4.2 Enhance Forest Vegetation Composition and Structure

While aspen is the main focus for forest type and management emphasis in this project area, other types (such as conifer and upland openings) are also important.

Table 1-1: Vegetation Composition Objectives

	Forest Plan Goals	Existing Condition
Aspen	35-65 %	36 %
Conifer	10-20 %	14 %
Upland Open	3-5 %	< 1 %

Table 1-1 indicates that the aspen component for the project area is at the low end of the desired level. This has been fairly typical across the Medford-Park Falls Ranger District in Management Prescription 1 areas. The Hoffman-Sailor West project area has a reduced potential for supporting a mixed northern hardwood community (see Chapter 3). For this reason, mature, poor quality maple and paper birch stands that have a substantial (greater than 20%) aspen component have been proposed for clearcut harvest and conversion to aspen. These types of stands, if not harvested now, would remain mixed stands of poor quality hardwoods. Also, the older aspen within the project area will start to naturally convert to other types. As this happens, the aspen component within the project area could start to decline below the desired range. Conversion of some of the mature hardwood and paper birch stands would reduce the potential loss of aspen that would occur naturally over time.

The conifer component in the project area falls within Forest Plan guides. However, there are several concerns about the potential for a decrease in native biodiversity by maintaining large acreages in pure aspen stands, or by decreasing the already existing conifer components within other stands. Some of the recommendations in General Technical Report NC-166 (Report on the Scientific Roundtable on Biological Diversity Convened by the Chequamegon and Nicolet National Forests - 1994) included

maintaining or increasing a conifer component within aspen stands. There are also aspen and paper birch stands with a planted understory of conifer which could be released to increase the overall conifer component in the project area. For these reasons, the clearcut harvest treatments include retention of a conifer component (when present) and areas currently underplanted to conifer are proposed for overstory removal.

Permanent upland openings are habitat needed by some species and utilized by others (ants, butterflies, deer, and bear to name a few). The percentage of permanent forest openings in the project area is less than 1%. This percentage is below the Forest Plan goal of 3 to 5% for these areas. Aspen management (primarily through even-aged methods such as clearcutting) provides temporary openings that create similar habitat. Generally, these temporary openings, if provided over time, would preclude the need for constructing and maintaining large acreages of permanent upland openings; therefore, there is no current need to increase the amount of permanent upland wildlife openings. Most of the existing permanent upland openings in the project area have been maintained by mechanical means (mowing or cutting back woody vegetation when it takes over from grass and brush). For some openings, this method of maintenance works well. In other areas, prescribed burning, or a combination of prescribed burning and brushing can eliminate woody vegetation for longer periods than brushing alone. Prescribed burning can be a more cost effective method of maintaining larger openings than mechanical methods. For this reason, one of the existing wildlife upland openings is being proposed for maintenance by prescribed burning.

There is no specific Forest Plan composition objective for paper birch in the project area. As stated earlier, some paper birch would be converted to aspen if the proposed action is implemented, but it is still desirable to continue to have some paper birch as a part of the overall landscape. Paper birch adds visual variety to the landscape. It is also an important part of American Indian tribal culture and has been historically gathered in the Park Falls area. For these reasons, the proposed action calls for shelterwood harvest of some of the mature paper birch. This harvest method would maintain a paper birch component in the regenerating stand.

While it is desirable to keep paper birch a part of the landscape, it is difficult to regenerate. The most successful methods of regenerating paper birch (other than wildfire) have been a shelterwood/seed tree type harvest followed by site preparation to expose some mineral soil. The shelterwood method of harvest retains some mature trees for a seed source while the exposure of mineral soil provides a suitable seed bed for paper birch. Even with this method of harvest and site preparation, regeneration of other species such as aspen and balsam fir occurs. With this treatment, there may be some portions of the stands that do not adequately regenerate to trees. In the past, areas that failed to regenerate naturally have been planted to conifer. The Lac du Flambeau Band of the Lake Superior Chippewa Tribe (LDF), in accord with the Memorandum of Understanding Regarding Tribal – USDA – Forest Service Relations on National Forest Lands within the Territories Ceded in Treaties of 1836, 1837, and 1842 (MOU), Section V., B and C, has indicated a desire to restore some red oak in the project area. Oak trees produce mast (nuts laying on the ground) which provides a concentrated source of high energy food for many wildlife species. Field visits indicate that stands proposed for spot planting of conifer are suitable for oak. For this reason, red oak and conifer is proposed to be spot planted in the paper birch stands that do not have adequate natural regeneration following harvest and site preparation treatments.

Some of the stands typed as northern hardwood in the Hoffman-Sailor West area contain a mix of red maple, paper birch, aspen, balsam fir, and the more typical northern hardwood species of sugar maple, basswood and white ash. This mixed composition, heavy to pioneer hardwood types (red maple, birch and aspen), is probably due to past history of logging and slash fires in the early part of the 1900's.

These stands may not have burned with the same intensity as the areas currently in aspen and paper birch types, or the soils may be more suited to developing a mixed composition following severe disturbance. These stands, while having a component of pioneer species, are closer to northern hardwood stands of the past. Thinning these areas can result in commercial recovery of the shorter lived species within the stand while maintaining the longer lived hardwoods, moving them further towards the composition of historic vegetation in the area. For this reason, some hardwood stands are proposed for thinning.

Another concern mentioned in General Technical Report NC-166 (Scientific Roundtable Report for short) is the decrease of vertical structural diversity in the forested landscape. The majority of the existing forested acreage across the Chequamegon-Nicolet National Forest is even-aged. Even where northern hardwood communities regenerated 60 to 90 years ago, they are comprised of trees of about the same age. Tree canopies are usually closed which limits the amount and type of vegetation that can develop in the understory. This condition limits vertical vegetation structure to some extent, and limits habitat availability for species that utilize areas with a high degree of vertical structure. Vertical structure can be enhanced through use of selection harvest in northern hardwood communities. Selection harvest is used to start moving even-aged areas to an uneven-aged condition which increases the amount of vertical structure. Selection harvest also improves the health and vigor of the remaining trees and opens up small gaps (20-60 feet in diameter) in the overstory to allow pockets of regeneration to develop. For these reasons, some well stocked, mixed northern hardwood stands are being proposed for selection harvest.

1.4.3 Enhance and Maintain Early Successional Habitat for Wildlife Species

As stated earlier in this document, the primary emphasis for the management of vegetation in this area is: to produce aspen pulpwood through even-aged management and to emphasize habitat for wildlife species associated with pioneer vegetation (Forest Plan page IV- 106). There is little vegetation in the younger age classes needed for the desired habitat conditions for many of the wildlife species associated with pioneer vegetation types such as aspen, balsam fir, and paper birch. White-tailed deer, ruffed grouse, and snowshoe hare all rely on young forest vegetation for browse and cover. In addition to game species such as white-tailed deer, ruffed grouse, and snowshoe hare, other benefiting non-game species in this management area type would be golden-winged warbler and chestnut-sided warbler. Pioneer types of vegetation such as aspen, balsam fir, and paper birch also provide a prey base for wildlife such as woodland hawks, wolves, and bobcat to name a few. Associated with early successional wildlife habitat is a variety of consumptive and non-consumptive recreation uses of the Forest including wildlife viewing and hunting.

Tables 1-2 and 1-3 show estimated habitat available for white-tailed deer and ruffed grouse (2 game species and Forest Plan Management Indicator Species) now and in 10 years if no action is taken.

Table 1-2: Habitats Available for White-tailed Deer

SPECIES	HABITAT TYPE	Current Habitat	Habitat in 10 years
White-tailed Deer	Aspen (acres)	7,770	7,770
	Clearcuts (acres)*	740	0
	Upland Openings (acres)	70	70
	Oak (acres)	0	0
	Conifer (acres)	3,110	3,110

* Clearcuts = all forested stands 10 years old or less.

White-tailed deer require an interspersion of various habitat types, including conifer forests of hemlock, spruce, tamarack, cedar, and fir (which provide cover), aspen and oak hardwood forest (which provide food), and grassy/brushy openings (which provide areas for browsing). Oak is only found in the project area as a minor component (generally in hardwood stands, but it also occurs in some of the pine types). Clearcuts provide browse. Table 1-2 shows that aspen, oak and conifer types will remain about the same over the short term (10 years) with no action. Deer and associated species habitat could be improved by taking action to increase aspen and conifer. For this reason, some conversion to aspen and conifer is proposed.

Table 1-2 shows about 740 acres, 560 of which contain aspen, that are currently in the clearcut stage (0-10 years old). With no action, there will be no clearcut areas available for browse. Deer and associated species habitat could be improved by taking action to maintain some forest in the younger age classes. For this reason, some clearcut harvest is proposed.

Ruffed grouse thrive best in areas that are intensively managed to provide an interspersion of food and cover types. In particular, aspen forest types should be present in three age classes: 0-20 years (provides cover for drumming and rearing), 21-40 years (provides cover for breeding), and 41+ years (provides food, wintering and nesting cover). Escape, feeding, and roosting cover is also provided by upland conifers, and grassy or brushy openings. Grass and brush openings are not needed as much if 25% or more of the area is managed for aspen.

Table 1-3: Habitats Available for Ruffed Grouse

SPECIES	HABITAT TYPE	Current Habitat	Habitat in 10 years
Ruffed Grouse	Aspen (0-20 years old - %)	13	7
	Aspen (21-40 years old - %)	41	15
	Aspen (41+ years old - %)	46	78
	Upland Openings (acres)	70	70
	Upland Conifer (acres)	1,610	1,610

Over time, Table 1-3 shows there will be a decline in the aspen in the 0-20 year age category, with a subsequent increase in the older age classes. There is a need to maintain a balance between the 3 aspen age classes shown in Table 1-3. For this reason, aspen clearcutting is proposed.

The Squaw Creek Wildlife Management Area (see the Special Management Areas Map) is specifically managed for ruffed grouse and waterfowl habitat. The ideal method of managing for ruffed grouse is to have stands that are relatively small (5-15 acres) and have them grouped with other small stands covering a range of age classes. For this reason, aspen clearcuts proposed in this area are being kept smaller than the clearcuts proposed for the rest of the Hoffman-Sailor West area. Most of the aspen clearcuts being proposed in this area are about 20 acres in size. Managing areas less than 20 acres in size increases costs of management significantly with only a slight increase in benefits to ruffed grouse.

One of the objectives of the Forest Plan is to improve the diversity and distribution of wetland types through the construction and maintenance of lowhead impoundments (Forest Plan page IV-76). Upper Squaw Creek Impoundment (see the Lakes and Streams Map) is an existing impoundment maintained for shallow marsh habitat suitable for waterfowl. Upper Squaw Creek Impoundment has a water control structure that is used to artificially control water levels. Emergent vegetation is an important aspect of managing shallow marsh habitat for waterfowl, and more specifically for waterfowl that dabbles for food rather than dives. The desired range of open water to emergent vegetation is about 50% open water

to 50% emergent vegetation. As impoundments age, the amount of submerged vegetation generally increases. Some undesirable plant species for dabbling waterfowl management that currently occupy impoundments are lily pads, coontail, and submerged mats of vegetation. Desired plant species for dabbling waterfowl consist of smartweed, duckweed, bulrush, wild rice, and other emergent vegetation. These are the species that provide the best food value and protective cover for duck broods. Overwinter and yearlong drawdowns are done to kill back the undesired species by freezing the exposed vegetation and compacting the soil to kill the underground portion of the plant. This technique has proven very successful at setting back the submergent vegetation while favoring the emergent plant species and other desirables such as wild rice. Mid-summer partial drawdowns are used to mimic the natural lowering of water levels in the heat of summer. Summer partial drawdowns expose shallow mud flats. Once these mud flats are exposed, grasslike vegetation is quickly established. This provides food for waterfowl species, and then, when the water levels are restored, this new vegetation provides more structure for aquatic insects. For these reasons, a series of drawdowns are being proposed for Upper Squaw Creek Impoundment.

Many of the existing impoundments (including Upper Squaw Creek Impoundment) are surrounded by vegetation that is lacking in trees that could provide natural cavities for nesting. Woodducks rely on cavities for nesting and hatching young. For these reasons, the proposal includes placement of duck nesting boxes on this flowage. As the forested areas around the flowage age, they will become more suitable for nesting. Boxes are meant as a short term enhancement of cavity nesting habitat.

Wild rice is a high quality food and cover source for waterfowl. Wild rice also helps water quality by slightly raising winter dissolved oxygen levels due to the slow decomposition rates of the rice plants. The bay on the southwest side of Sailor Lake (see the Lakes and Streams Map) is shallow and has conditions suitable for some wild rice planting. Wild rice also benefits fisheries by stabilizing sediments and providing a spawning bed for fish such as northern pike. Wild rice is also an excellent waterfowl food. For these reasons, the proposal includes planting wild rice in the southwest bay of Sailor Lake where it will not interfere with recreational boating or access to private land. Wild rice will also be planted and maintained in the Upper Squaw Creek Impoundment.

1.4.4 Enhance Watershed and Fisheries Conditions

Historic log drives in some waterways caused some stream channels to become unnaturally wide and shallow, lacking structure for fish and other aquatic species. More significant however was the conversion of the pre-logging/fire era forest from mature, late successional to early successional species. This resulted in a loss of the large woody debris needed in stream channels for habitat structure as well as nutrient sources for aquatic food chain organisms. Another result was greatly expanded beaver populations that dammed and contributed to warming of high quality, cold water communities.

In the present day forest, maintaining early successional aspen forest within the riparian zones of streams and water bodies contributes to the loss of large woody debris and compounds beaver problems for cold water communities. In addition, the removal of the forest canopy through clearcutting in these riparian zones could contribute to water temperature increases that are a negative impact to cold water communities.

Dalrymple Creek (see the Lakes and Streams Map) and some of its tributaries are considered cold water, Class II brook trout streams. Most of the forest vegetation along Dalrymple Creek is aspen. Continued management of the aspen types will compound beaver problems and limit nutrient sources to the stream. Beaver control such as trapping and removal (which is done as needed) could maintain and restore water temperatures, but would be a long term need due to the amount of aspen already present along this

stream. There are several mature aspen stands adjacent to this creek that have been proposed for harvest. Rather than regenerating these stands to aspen, the proposal includes harvest and conversion of parts of these stands to a non-aspen type. This will not eliminate the need for short term beaver population control, but it will result in a reduction of the aspen food source for beaver along Dalrymple Creek and is consistent with Forest Plan management direction for fisheries which calls for discouraging aspen and other vegetation attractive to beaver near Class I and Class II trout streams (Plan page IV-79).

1.4.5 Maintain and Enhance Habitat for Federally Threatened and Endangered Species

There is some feeding and nesting habitat for bald eagles in the project area. Sailor Lake is managed primarily for fisheries. This management enhances the bald eagle feeding habitat. Sailor Lake has potential perch and nest sites for bald eagles (super canopy pine). A bald eagle pair has established a nesting site on the lake shore. There is a need to maintain super canopy pine adjacent to Sailor Lake. For this reason, underplanting white pine in three selection harvest units on the western shore of Sailor Lake is proposed.

1.4.6 Utilize Marketable Wood Products

While aspen pulpwood production is a specific objective for the project area, another objective of the Forest Plan is to emphasize utilization of all marketable timber products and to maintain or increase production and harvest of timber in accord with demands of aspen, softwood, and hardwood tree species (Forest Plan, page IV-3). Therefore, compositional changes to forested ecosystems and maintenance of the existing forest types are intended to be done in a way that utilizes available timber products. Demand for a variety of wood species and product types remains high as evidenced by the percent of offered sales purchased on the District and a continued increase in stumpage revenues. For this reason, the proposed vegetation treatments would be carried out in a way that recovers marketable wood products.

When managing for wood products, it is desirable to have a fairly stable flow of products available as well as utilizing the products prior to decline from rot or other types of damage. Rot and other damage from increasing age can also cause a build up of insect populations that can further increase tree damage and mortality. Currently, about 89 percent of the paper birch is older than 60 years or is over mature and declining. For this reason, some of the oldest paper birch is being proposed for harvest and utilization.

About 15-20 years ago, white spruce was under planted in some of the maturing aspen and paper birch areas. Many of these under plantings are ready to be released. There are several overstory removal projects that are proposed. These projects were proposed in areas where the overstory is mature and the underplantings represent a substantial investment.

Many of the hardwood, red pine, and white spruce areas that are immature are ready to be thinned or select harvested to further develop sawtimber sized trees, to improve tree vigor, and/or to start a regeneration process. Thinning and selection harvest removes some of the trees in an area, resulting in improved vigor and growth on the remaining trees. Forest Plan guidelines call for thinning hardwood stands every 10-20 years depending on tree stocking levels. Forest Plan guidelines for thinning red pine is every 10-15 years, and white spruce thinnings are to occur every 10-20 years. Forest Plan guidelines call for selection harvests to occur no more than once every 10 years. Each stand proposed for thinning or selection harvest meets these Forest Plan guidelines.

1.4.7 Maintain a Transportation System Suitable for Use and Resource Protection

A long term transportation plan (Hoffman-Sailor West Roads Analysis, July 11, 2001) was conducted for this project. The purpose of that plan is to identify the minimum road system needed that is safe,

affordable, has minimal ecological impacts, and meets immediate and projected long-term public and resource management needs. Based on the recommendations in that plan and on the road management needs specific to the proposed activities, road projects are included in the alternatives.

The timber harvest being proposed would require some road construction for access. Because the road system is mostly in place, road construction included in the proposal is limited. Temporary roads are needed when access is needed on a short term basis. Classified forest system roads are needed when access is needed over a long period of time.

There are some existing roads and trails that are in locations where impacts to soils, wetlands, or other resources are occurring. There is a need to move these roads and trails to a location that would reduce recurring effects and maintenance costs. Other roads, while needed for management of the Forest, are only needed on an intermittent basis and were not built to a standard that can support daily use. These types of roads are proposed for closure in order to reduce maintenance costs and limit road damage and potential damage to other resources.

There are many old roads that are no longer needed to manage National Forest System lands within the next 20 or so years. The proposal calls for eliminating (decommissioning) these roads. In addition to not being needed for Forest management, these roads are non-surfaced trails or old ice roads. Continuing to leave them open and useable would result in resource damage. Some of these roads or trails already may have berms and the intent or decommissioning them would be to ensure the berms are still functioning to keep traffic off of the road so that it can revegetate.

1.5 Decision Framework

The decision to be made is whether to implement the actions described as the proposed action (Alternative B), or implement one of the other alternatives to the proposal.

More specifically, the decision involves: which stands will be treated with timber harvest, site preparation, and regeneration activities; which wildlife openings will be maintained; which roads will be constructed, closed, or decommissioned; whether or not wild rice will be planted; and whether or not duck nesting boxes will be installed.

The District Ranger of the Medford-Park Falls Ranger District is the Forest Service official responsible for the decision.

1.6 Compliance with Laws and Regulations

The Forest Service has prepared this Final Environmental Impact Statement (FEIS) in compliance with the National Environmental Policy Act (NEPA) and its implementing regulations at 40 CFR Parts 1500-1508.

NEPA at 40 CFR 1502.25(a) directs "to the fullest extent possible, agencies shall prepare environmental impact statements concurrently with and integrated with …other environmental review laws and executive orders." The following laws and executive orders pertain to the management activities proposed in the Hoffman-Sailor West project:

1.6.1 National Forest Management Act (NFMA)(36 CFR 219.27)

This Act establishes guidelines for National Forest management. This project has been designed in conjunction with the guidelines in this act as well as with direction in the 1986 Chequamegon National Forest Land and Resource Management Plan (Forest Plan) which was prepared under NFMA regulations. In order to eliminate repetitive discussion and documentation, this document tiers to the Forest Plan and its Final Environmental Impact Statement (FEIS) and Record of Decision (ROD).

All sites proposed for timber harvest have been identified in the Forest Plan as suited for timber production. All sites have been inventoried. Based upon a review of the inventories, all timber harvest areas have been determined to meet suitability pursuant to 36 CFR 219.27 (c) (1). See field inventory sheets in the project file. The technology and knowledge exists to adequately restock stands selected for a regeneration treatment pursuant to 36 CFR 219.27 (c) (3). Where natural regeneration is expected to be lacking, planting has been prescribed (see Tables D-1 through D-3, Appendix D). Timber production could continue without irreversible damage to soil and watershed conditions (see Chapter 2, sections 2.3.5, 2.3.6, and 2.3.7). None of the timber harvest occurs in areas that have been withdrawn from timber harvest by an act of Congress, by the Secreatary of Agriculture, or by the Chief of the Forest Service. There are no Wilderness areas, Roadless areas, or designated or candidate Wild and Scenic Rivers within the Project area (see Special Management Area Map and project record).

The Forest Plan, under regulations in 36 CFR 219.27(b)1, identifies the appropriate silvicultural management systems to be used by forest type (Plan pages IV-41 through IV-66). Timber harvest practices were identified for each proposed harvest area to meet these guides (project record files for proposed harvest). In addition, Appendix C identifies why clearcutting and shelterwood harvest are the optimum methods of even-aged management to use for regeneration of some forest types [16 USC 1604 (g)3(F)(i)].

The Forest Plan, pursuant to 36 CFR 219.27(d), identifies that clearcuts must be limited to 40 acres or less in size with some exceptions (Plan page IV-40). The proposed action (Alternative B) for this analysis limits clearcut areas to less than 40 acres in size, but 2 other alternatives (B and C) do not. Pursuant to direction in the Forest Plan, the public was notified that there were alternatives being considered that would have clearcuts over 40 acres in size (Hoffman-Sailor West Project Proposed Federal Action, April 18, 2001). Exceptions to the 40 acre size limit require a minimum 60 day public notice which began with publication and distribution of the proposal in 2001 and continued through the 45 day notice and comment period for the DEIS for this project.

1.6.2 Endangered Species Act of 1973, as amended 1978, 1979, 1982, and 1988 (16 U.S.C. 1531)

This Act provides direction to the Forest Service to establish objectives for habitat management and recovery through the Forest Plan for the conservation and protection of endangered and threatened species. This project is consistent with these guidelines. The project area has been reviewed to identify, manage, and protect essential and critical habitats to meet legal requirements and recovery objectives for Federally listed species. There is no critical habitat present in the project area. An analysis of effects on listed species has been conducted and documented. See Chapter 4, section 4.2.1; Appendix A; and biological evaluation reference documents in the project record. Also see Appendix E, Response to Comments on the DEIS.

1.6.3 National Historic Preservation Act (16 U.S.C. 470)

This Act provides direction for Federal agencies to establish a program for preservation of historic properties. In compliance with this act, potential impacts to sites eligible for the National Register of Historic Places were considered in this analysis. See Chapter 2, section 2.3.9.

1.6.4 Clean Water Act, as amended 1977

The Federal Water Pollution Control Act of 1972, as amended, is commonly referred to as the Clean Water Act. This was enacted to restore and maintain the chemical, physical, and biological integrity of the Nations waters. Section 319 for the 1977 amendments requires each state to develop and implement a program to control silviculture-related and other non-point sources of water pollution to the maximum extent practicable. Non-point sources of water pollution are controlled by the use of "best management practices". Wisconsin developed Forestry Best Management Practices for Water Quality in 1995 (WDNR 1995). These practices are used as mitigation measures to prevent non-point sources of water pollution from forest management activities.

Under Section 404, the U.S. Army Corps of Engineers has been given responsibility to regulate the discharge of dredged and fill material into waters of the United States, including wetlands (33 CFR 323.3). Normal silvicultural activities, including harvesting for the production of forest products or upland soil and water conservation practices, are exempt from Section 404 permits (33 CFR 323.4). Construction and maintenance of forest roads for normal silviculture are also exempt provided best management practices are applied (33 CFR 323.4; Wisconsin's Forestry Best Management Practices for Water Quality).

Project design and mitigation measures meet, and in some cases exceed BMPs. See Chapter 2, sections 2.3.6 and 2.3.7.

1.6.5 Executive Order 12898 (Environmental Justice)

The Environmental Justice Executive Order (EO) 12898, released by the White House in February 1994, places attention on any adverse human health and environmental effects of agency actions that may disproportionately impact minority and low-income populations. The Order simultaneously directs Federal agencies to avoid making decisions that discriminate against these communities. The disclosure of EO 12898 considerations are included in Appendix B of this document.

1.6.6 Clean Air Act

There are no Class I airsheds within or adjacent to the project area. See the FEIS for the 1986 Chequamegon Land and Resource Management Plan (Forest Plan FEIS page III-17).

1.6.7 Wild and Scenic Rivers Act

There are no designated or candidate rivers within or adjacent to the project area. See the FEIS for the 1986 Chequamegon Land and Resource Management Plan (Forest Plan FEIS, Appendix E) and the DEIS for the Proposed Chequamegon-Nicolet National Forest Land and Resource Management Plan 2003, Appendix E.

1.6.8 Wilderness Act

There is no designated or proposed Wilderness within the project area. There are no Roadless Areas or proposed Roadless Inventory Areas within the project area. See the FEIS for the 1986 Chequamegon Land and Resource Management Plan (Forest Plan FEIS, Appendix C) and the DEIS for the Proposed Chequamegon-Nicolet National Forest Land and Resource Management Plan 2003, Appendix C