



United States
Department of
Agriculture

Forest
Service

October 2003



Record of Decision

Hoffman-Sailor West

Medford-Park Falls Ranger District
Chequamegon-Nicolet National Forest
Price County, Wisconsin

Legal Description: 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.

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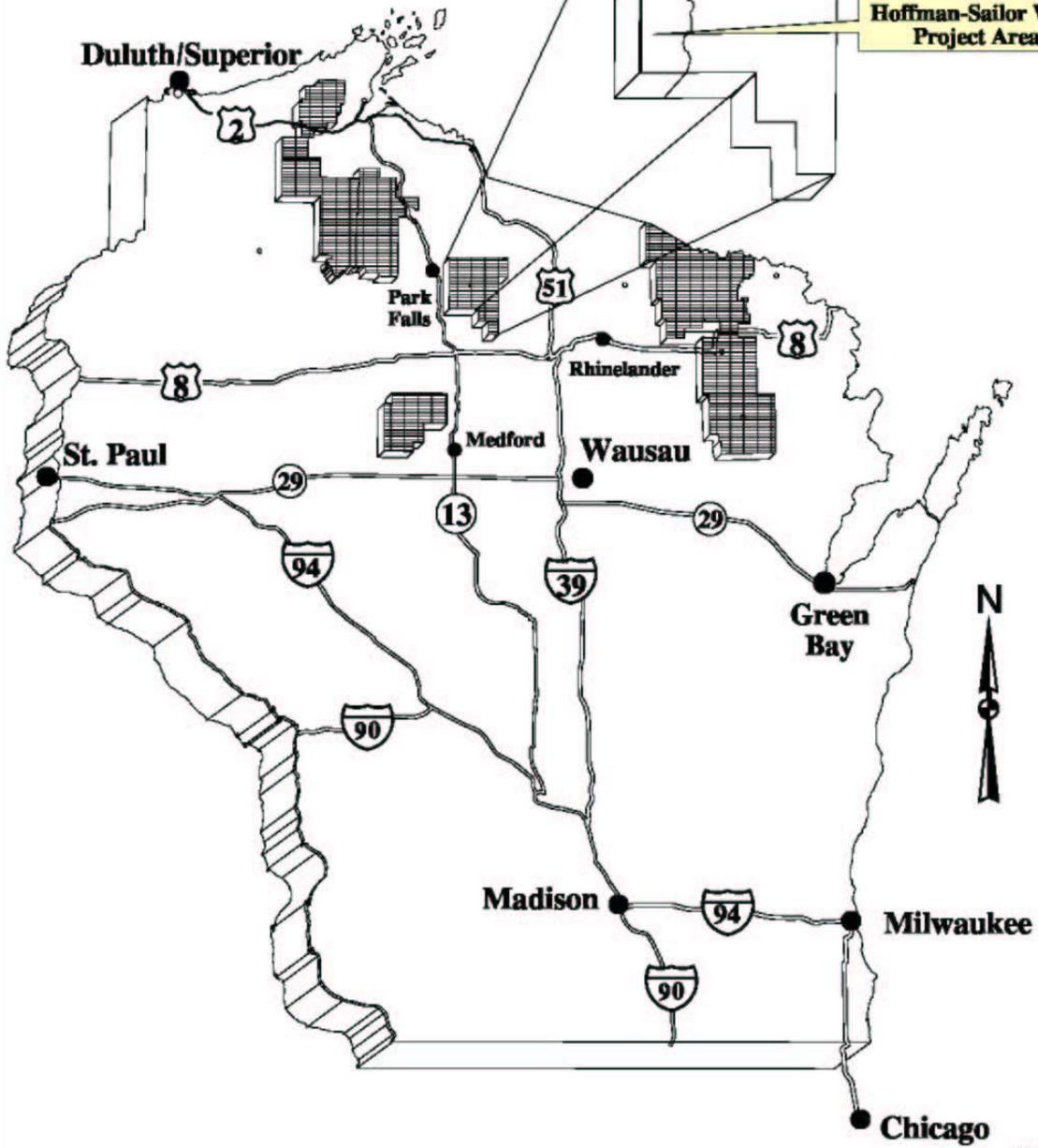
Chequamegon-Nicolet National Forest

**Hoffman-Sailor West
Environmental Analysis**

PARK FALLS VICINITY MAP

**Medford/Park Falls Ranger District
Park Falls Landbase**

**Hoffman-Sailor West
Project Area**



The Decision

BACKGROUND AND PROJECT HISTORY

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 on the preceding page.

Within the project area, a variety of vegetation and road management activities have been proposed.

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 and a Draft Environmental Impact Statement (DEIS) was sent to the public in January 2003. A Final Environmental Impact Statement (FEIS) has been prepared in conjunction with this Record of Decision.

THE DECISION

It is my decision to implement Alternative B as described in Chapter 2 of the FEIS for the Hoffman-Sailor West project. Also see Table ROD-1. This decision includes:

- **Timber Harvest and Regeneration Activity:** This harvest would yield an estimated 23 million board feet (MMbf) of timber volume (primarily aspen pulpwood). More specifically, timber harvest and regeneration treatment in this decision includes:
 - Clearcut harvest that includes mostly aspen types, paper birch, balsam fir, and hardwoods. The intent of most of these harvests is to naturally regenerate aspen with some mixed aspen, conifer and hardwood stands.
 - Two stage shelterwood harvest of paper birch with the intent to regenerate paper birch and some mixed birch, conifer, and oak stands.
 - Overstory removal harvest of aspen, fir, and paper birch. Removal of the aspen, fir, and birch overstory will allow previously planted spruce and some hardwood to grow into the overstory resulting in a stand of trees with a different dominant species.
 - Selection harvest of mixed hardwood stands. This selection harvest will result in a stand of similar composition to the present. The intent of the treatment is to move the areas towards an uneven-aged condition.
 - Thinning harvest of primarily mixed hardwoods, white spruce and red pine. Forest type following treatment would remain the same as currently exists.
 - Tree planting. Most of the planting will occur scattered through shelterwood harvest areas. Other areas being planted include projects adjacent to Sailor Lake and Dalrymple Creek. Most of the planting will be a mix of tree species that includes white pine, white spruce, red pine, red oak, and hemlock.
- **Wildlife Opening Maintenance:** Most of the wildlife openings will be maintained through mechanical methods. About 20 acres will be maintained through prescribed burning and mechanical methods.
- **Waterfowl Habitat Improvement Activity:** Waterfowl habitat projects include wild rice planting, water impoundment drawdowns, and duck nesting box placement:
 - Wild rice planting in the shallow bay on the southwest side of Sailor Lake. Seeding would occur for several years in a row and would continue until about 5 acres of wild rice is established. Wild rice will also be maintained and planted along the shoreline of Upper Squaw Creek Impoundment.
 - Upper Squaw Creek Impoundment water level drawdowns. In most years, water levels in this constructed water impoundment would be lowered partially during the summer to mimic natural water fluctuations, and stimulate vegetation growth. Overwinter and year long drawdowns would

also be conducted on an intermittent basis. Overwinter and year long drawdowns include lowering the water levels to the creek channel and are used to keep the flowage at a ratio of about 50:50 open water to emergent vegetation. In addition to water level drawdowns, wood duck nesting boxes will be placed around the Upper Squaw Creek Impoundment.

- **Road Construction and Closure Activity:** Road projects include construction, closure, and road decommissioning.
 - o Classified road construction. Classified roads are roads that would be maintained as part of the permanent Forest transportation system. They may be open or closed to public motorized use.
 - o Temporary road construction. Temporary roads are immediately decommissioned following completion of the project activity that required the road.
 - o Road closure of classified Forest system roads. A road may be closed either by sign, gate, berm, rock, or other materials to effectively prevent cars and trucks from utilizing the road. Classified roads that are closed are needed for management of the forest but are opened and utilized only on an intermittent basis.
 - o Road decommissioning. These roads are no longer needed for access and use of the project area. About 17 miles of road could be decommissioned anytime. About 11 miles will be used for access to timber harvest activities and then decommissioned following completion of the activities.

Table ROD-1 displays this project summary and lists the approximate amounts of the activities described above.

Clearcut Harvest (acres)	1770
Shelterwood Harvest (acres)	280
Overstory Removal Harvest (acres)	150
Selection Harvest (acres)	350
Thinning Harvest (acres)	740
Total Timber Harvest (acres)	3290
Total Tree Planting (acres)	190
Total Wildlife Opening Maintenance (acres)	70
Total Prescribed Burning (acres)	20
Wild Rice Planting	yes
Water Impoundment Drawdowns	yes
Duck Nesting Box Installation	yes
Classified Road Construction (miles)	1.5
Temporary Road Construction (miles)	2.5
Total Road Construction (miles)	4
Classified Road Closure (miles)	8
Road Decommissioning (miles)	28

Attachment 1, Tables ROD-3 and ROD-4 of this Record of Decision lists the site-specific projects that are included in the above summary. Project locations are displayed on two maps following Attachment 1. One map displays the vegetation treatment projects while the other displays the location of projects associated with the transportation system.

My decision includes implementation of site-specific project requirements including project design and mitigation measures. The specific project prescriptions, design, and mitigation measures that would be implemented with this decision are included in Attachment 1, Table ROD-5.

I have considered four alternatives (including the decision) in detail. Elements of the four alternatives are documented in the Hoffman-Sailor West FEIS, Chapter 2, and are summarized below.

- **Alternative A, No Action:** This alternative is the No Action alternative as required. In this alternative, no timber harvest, planting, road projects, or nesting box installation would occur.
- **Alternative B, Proposed Action, and Agency Preferred Alternative:** Alternative B was developed to optimize the purpose and need. This alternative is also the Agency preferred alternative in the DEIS.
- **Alternative C:** Alternative C was developed to address the issue of landscape pattern. Alternative C was developed to increase patch size of vegetation type and age classes over those in Alternative B. This alternative results in even-aged openings larger than 40 acres.
- **Alternative D:** Alternative D was also developed to address the issue of landscape pattern. Alternative D differs from Alternative C in that it takes a more aggressive approach to attaining large patch sizes. This more aggressive approach is to optimize overall aspen and birch productivity. This alternative results in even-aged openings larger than 40 acres.

Several other alternatives were considered, but dropped from detailed analysis. For further information on these alternatives, see Chapter 2 of the FEIS.

Reasons for the Decision

I have selected Alternative B as described in the FEIS because it provides the best opportunity to effectively meet the stated objectives and need for the proposal while suitably addressing key issues that were identified during the analysis process.

Actions were proposed due to differences between the existing and the desired condition of the project area. 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. 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.

In general, there were seven elements identified as needed (Chapter 1, FEIS) in the project area. These included:

- Maintaining Aspen Pulpwood Production (FEIS, Section 1.4.1).
- Enhancing Forest Vegetation Composition and Structure (FEIS, Section 1.4.2).
- Enhancing and Maintaining Early Successional Habitat for Wildlife Species (FEIS, Section 1.4.3).
- Enhancing Watershed and Fisheries Conditions (FEIS, Section 1.4.4).
- Maintaining and Enhancing Habitat for Federally Threatened and Endangered Species (FEIS, Section 1.4.5).
- Utilizing Marketable Wood Products (FEIS, Section 1.4.6).
- Maintaining a Transportation System Suitable for Use and Resource Protection (FEIS, Section 1.4.7).

In addition to the factors listed above, the key issues (Chapter 2, FEIS) I considered in my decision were:

- Landscape Pattern (FEIS, Section 2.2.2).
- Visual Quality (FEIS, Section 2.2.3).

Other issues were considered in the FEIS (Chapters 2 and 4) that could be addressed without developing alternatives. Potential adverse effects concerning these issues were addressed using design features and requirements to avoid or mitigate impacts. As an example, bald eagle is known to nest in the project area. This issue was addressed by including a project requirement that excludes harvest near the nest site and prevents removal of potential nesting trees in the area. Since this requirement applies to all alternatives, there would be no basis for selecting one alternative over another. Thus, issues such as this (in which project requirements and mitigation measures effectively addressed potential effects in all alternatives) were not used as a basis for my decision (also see FEIS, Chapter 2, Section 2.3, Minor Issues).

Table ROD-2 summarizes the tradeoffs between the alternatives and my decision (Alternative B). These tradeoffs are summarized from the resource impacts described in more detail in Chapter 4 of the FEIS and are explained following the table.

Table ROD-2: Alternative Comparison					
Issue / Resource	Existing Condition	Alternative			
		A	B Decision	C	D
Pulpwood Production (FEIS sections 1.4.1, 1.4.6, 3.2.7, and 4.2.7)					
Total volume produced (MMbf, million board feet)	NA	0	23	24	29
Aspen 0-20 years old in the project area (percent of the aspen)	13	7*	29*	29*	33*
Forest Vegetation Composition (FEIS sections 1.4.2, 3.2.4, and 4.2.4)					
Aspen increase (acres)	0	0	260	490	570
Aspen percent (Forest Plan range = 35-65%)	36	36	37	38	38
Management Indicator Species (white-tailed deer and ruffed grouse) (FEIS sections 1.4.3, 3.2.2, and 4.2.2)					
Amount of aspen in the project area (acres)	7600	7600	7860	8090	8170
Average clearcut size in the project area (acres)	20	0	26	53	51
Percent of aspen in the project area (% of all federal land)	36	36	37	38	38
Aspen 0-20 years old in the project area (percent of the aspen)	13	7*	29*	29*	33*
Amount of aspen in Squaw Creek Wildlife Area (acres)	1307	1307	1392	1371	1423
Percent of aspen in Squaw Creek Wildlife Area (% of federal land)	36	36	38	37	39
Average clearcut size in Squaw Creek Wildlife Area (acres)	11	0	21	21	24
Aspen 0-20 years old in Squaw Creek Wildlife Area (percent of aspen)	15	9*	27*	26*	32*
Management Indicator Species (brook trout) (FEIS sections 1.4.4, 3.2.3, and 4.2.3)					
Habitat improvement along Dalrymple Creek (% of total stream miles)	0	0	6	9	9
Federally Threatened and Endangered Species (FEIS sections 1.4.5, 2.2.1, 3.2.1, 4.2.1, and Appendix A)					
Acres of new future bald eagle nesting habitat provided	0	0	13	13	13
Transportation System (FEIS sections 1.4.7, 3.2.9, and 4.2.9)					
Total road density for project area (miles/square mile)	3.1	3.1	2.3	2.5	2.4
Total road density for semi-primitive, motorized area (miles/square miles)	3.1	3.1	2.3	2.5	2.4

Table ROD-2: Alternative Comparison					
Issue / Resource	Existing Condition	Alternative			
		A	B Decision	C	D
Landscape Pattern (FEIS sections 2.2.2, 3.2.5 and 4.2.5)					
Average patch size (acres) of 0-10 year age class	20	0*	26*	53*	51*
Average patch size (acres) of all age classes	37	37*	32*	35*	35*
Interior to edge habitat ratio (In the existing condition of the project area, the interior to edge ratio is 1/3. This means that for every 1 acre of forest interior habitat, there are 3 acres of forest edge habitat.	1/3	1 /2.3	1/3	1/3	1/3
Visual Quality (FEIS sections 2.2.3, 3.2.6 and 4.2.6)					
Temporary openings in semi-primitive motorized areas (percent)	NA	0	7	7	8
Temporary openings in Retention and Partial Retention (percent)	NA	0	6	7	9

* Figures represent percentages and patch size 10 years from now.

Maintaining Aspen Pulpwood Production and Utilizing Marketable Wood Products

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 develop an even distribution of age classes across the Management Area. 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 each decade is required to maintain a stable flow of aspen pulpwood over time. Furthermore, Forest Plan guidance (Forest Plan page IV-114) includes maintaining about 30% of the aspen type in the 0-20 year age class in order maintain aspen pulpwood production. Current aspen in the 0-20 year age class is about 13%. Alternatives B and C best keep the percent of aspen types in the 0-20 year age class closest to the desired 30 percent. Alternatives A and D result in a poorer distribution of aspen age classes.

Enhancing Forest Vegetation Composition and Structure

The primary difference between alternatives in forest vegetation composition is the amount of aspen that would be maintained in the project area. In Alternative A, aspen types remain at their current level. There is an increase in aspen in Alternatives B through D. Alternative B increases aspen types by about 1 percent. Alternatives C and D increase the aspen types by about 2 percent (within the project area). All alternatives are within the low end of the desired range for aspen (see Table ROD-2).

Enhancing and Maintaining Early Successional Habitat for Wildlife Species

A primary emphasis for the management of vegetation in the project area is to emphasize habitat for wildlife species associated with pioneer vegetation (Forest Plan page IV-106). There is currently 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, among others (FEIS, Chapter 1, Section 1.4.3).

For the Management Indicator Species (MIS) white-tailed deer and ruffed grouse, habitat will be improved in all the action alternatives (Alternatives B-D) by an increase in the availability of food and

cover habitat (clearcuts) and an increase in forest types utilized for food (aspen). In Alternative A, there will be less aspen in the younger age classes needed for food and cover within the project area.

As with white-tailed deer, grouse utilize and respond better to smaller habitat patches (clearcuts), which would be ideally less than 20 acres in size. Grouse will utilize larger clearcuts to a lesser extent. The existing average size of clearcuts within the project area and within the Squaw Creek Wildlife Management Area is shown in Table ROD-2. Alternative B best provides clearcuts that are closest to the optimum size for deer and grouse utilization (Table ROD-2).

Enhancing Watershed and Fisheries Conditions

Dalrymple Creek is considered a Class II trout stream. Beaver can negatively affect Wisconsin trout streams by creating dams and cutting down trees adjacent to streams. Both of these actions can raise water temperatures and negatively affect trout and other cold water species. The condition adjacent to Dalrymple Creek is less than ideal for brook trout due to the amount of aspen adjacent to the stream. Aspen is the preferred food for beaver and can contribute to high beaver populations. Beaver populations are currently being controlled on Dalrymple Creek through trapping and removal.

For the Management Indicator Species (MIS) brook trout, habitat will be maintained in all alternatives. There will be an improvement to habitat in Alternatives B through D from converting areas along Dalrymple Creek to tree species less preferred by beaver as a food source. This will result in more streamside shade and help maintain the cooler water temperatures needed for brook trout. Alternatives B through D all result in about 10 percent of the stream being improved in this manner.

Maintaining and Enhancing 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) which will not be impacted in any alternative. However, there is limited understory pine that could be future nest and perch trees. For this reason, underplanting white pine in three selection harvest units on the western shore of Sailor Lake was proposed in all the action alternatives. In all the action alternatives (B through D), future bald eagle nesting habitat will be improved. There is no provision for future bald eagle nesting habitat in Alternative A.

Maintaining a Transportation System Suitable for Use and Resource Protection

One of the purposes of the proposal was to develop and maintain a transportation system that is suitable for administration of the project area as well as one that provides adequate recreation access and reduces potential impacts to resources (FEIS, Chapter 1). One of the key issues raised during the transportation analysis conducted for this project was the amount of existing road travelways that are not currently classified Forest system roads. Many of these roads were old temporary logging roads that were left open instead of being decommissioned. These are unimproved travelways that could detrimentally impact water and other resources if they remain open to highway traffic. Other roads that are a part of the classified road system are currently open to highway traffic but are built to a standard that will not support heavy use without contributing to adverse resource impacts or resulting in higher maintenance costs. The transportation analysis also identified that there was only limited need for new classified road construction. Temporary roads that would be immediately decommissioned would suffice for most of the proposed projects. For the project area, total road density drops in all the action alternatives. Road density for the project area is within Forest Plan road density guides for all alternatives (3.6 miles per square mile). Road density for the semi-primitive, motorized portion of the project area in Alternatives B, C, and D moves towards the Forest Plan road density guides of 2 miles per square mile while

Alternative A does not. The needs for the transportation system are best met in Alternative B, though all the action alternatives move the road density in the project area and in the semi-primitive, motorized portions of the project area closer to the desired road densities and conditions.

Landscape Pattern

The existing landscape pattern of the project area is determined by glacial geology and ecological potential influenced by historic events. This pattern is one of small patches of upland forest and wetland. Almost 50% of the landscape is wetlands. Historical logging and fire produced an upland landscape dominated by early successional forest (primarily aspen, paper birch, and some balsam fir). Since establishment of the early successional forest, management for early successional habitat has continued. The structure of the existing forested upland landscape is predominantly a pattern of dispersed age and size classes with small patch sizes. Alternatives C and D were developed to determine if the amount of interior forest could be increased to benefit wildlife and neotropical migrant songbirds (NTMB) associated with that kind of habitat, given the management direction for the area (early successional habitat), the existing patchiness of the landscape, and the actual landscape pattern of upland mixed with lowland grass and brush vegetation. There are limited differences in the overall landscape pattern of the project area by alternative. Even with close to doubling the patch size (clearcut size), interior to edge ratios remain fairly constant across the alternatives. In Alternatives C and D, which were designed to have the larger patches (clearcuts) to decrease linear edges, the interior forest to edge forest ratios remain about the same as the current condition and this continues even when projecting similar sized harvests for 40 years.

Visual Quality

All alternatives would meet the visual quality objectives within the affected area. However, all action alternatives would result in an increase of temporary openings apparent to the viewer. This impact would be greater in Alternatives C and D than in B due to the larger average opening size (Table ROD-2). Additionally there is some uncertainty around the visual effects of Alternative D which increases the risk that Forest Plan visual objectives would not be met. Although the No Action alternative has no adverse impacts to visual quality, it meets none of the project's purpose and need.

Summary for Selection of Alternative B

In summary, all of the action alternatives (Alternatives B through D) move the project area closer to the desired conditions as outlined above in the purpose and need elements identified for this project. Alternative A (No Action) does not. I selected Alternative B because it provides the most utilizable habitat for wildlife species associated with early successional habitat. It also results in the most even-age class distribution of early successional habitat which provides sustainable wildlife habitat over time as well as providing for an even flow of aspen pulpwood production. In addition, Alternative B results in fewer roads to maintain, but still keeps the project area accessible to motorized recreation and forest product gathering use. Alternative B meets visual quality objectives and impacts forest views the least of all the action alternatives.

Environmentally Preferable Alternative

Because the FEIS identified no substantial, adverse effects from any of the action alternatives, I find them all environmentally preferable. The main differences between the alternatives are not the environmental impacts, but differences in the values emphasized in attaining resource conditions. None of the action alternatives are environmentally preferable over another, and none result in any substantial, adverse impact to the environment.

Tribal Consultation and Public Involvement

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. Prior to that, in June of 1998, the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) along with Red Cliff Band, Lac du Flambeau Band, and Bad River Band of the Lake Superior Chippewa tribes were sent a draft proposal. Interdisciplinary team members met with members of the natural resources staff of the Lac du Flambeau Band later that same month.

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. In addition to a change in the project area boundary, and based on comments on the EA, a choice was made to develop additional alternatives that address issues related to forest fragmentation and to prepare an environmental impact statement (EIS).

Public involvement and scoping for the modified project area (called the Hoffman-Sailor West Project) began with publication of a Notice of Intent (to prepare an environmental impact statement) that appeared in the Federal Register of documents on April 24, 2001. In addition to the appearance of the NOI in the Federal Register, a notice was published in the Park Falls Herald newspaper. Those who expressed an interest in the project were sent a detailed proposed action. In addition to the public, Forest Service employees, other federal, state, and county agencies, and Native American Indian tribes were notified. A total of 80 (non Forest Service) responses to the proposed action for the Hoffman-Sailor West project were received. Of the 80 responses, 20 responses contained no substantive comments on the proposal. Another 37 responses contained only general comments concerning approval or disapproval of National Forest management. The remaining responses identified resources of concern in the project area or were general NEPA process comments. Comments about resources of concern were, for the most part, general in nature.

A Draft Environmental Impact Statement for the Hoffman-Sailor West project was prepared and sent to interested and affected parties on January 27, 2003 for a 45-day notice and comment period. A total of 13 timely responses to the DEIS were received. Of these 13 responses, 4 were requests for additional information. Of the remaining 9 responses, 4 were from other federal, state, or tribal agencies. The remaining 5 responses were from individuals representing themselves or organizations with an interest in the project area. The 9 timely and substantive comments along with the agency (Forest Service) response to them are included in Appendix E of the FEIS. As a summary, most of the comments received related to the selection of an alternative rather than new major issues or effects. There were some new issues raised such as potential impacts from deer herbivory and potential increases in beaver populations and insect populations. These issues were examined and found to be not relevant to the type and extent of impacts that would be caused by the proposed activities (See Appendix B of the FEIS). There were other comments that related to whether or not the proposals were consistent with the Forest Plan revision. Some commenters wanted to see additional cumulative effects analysis. As a result of these types of comments, Chapter 4 of the FEIS includes some additional analysis related to potential cumulative impacts to vegetation that would occur as a result of implementing other proposed timber

harvest activities outside the project area on other Forest Districts. No substantial negative impacts related to this analysis were identified in the FEIS.

Forest Plan Consistency and NFMA Compliance

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.

I find my selected action (FEIS, Alternative B) complies with the vegetation management requirements of the National Forest Management Act (NFMA) at 36 CFR 219.27 and the Forest Plan:

SUITABILITY (36 CFR 219.27(c)(1))

The treatment activities selected result in harvest on lands suitable for timber production (FEIS, Section 1.6.1). All sites proposed for timber harvesting have been inventoried and identified as suited for timber production. All sites to be harvested have been inventoried on the ground.

ADEQUATELY RESTOCKED WITHIN 5 YEARS (36 CFR 219.27(c)(3))

The technology and knowledge exists to adequately restock stands selected for a regeneration treatment pursuant to 36 CFR 219.27 (c) (3). See the FEIS, Section 1.6.1. Where natural regeneration is expected to be lacking, planting has been prescribed (see FEIS, Tables D-1 through D-3, Appendix D).

VEGETATION MANIPULATION (36 CFR 219.27(b))

Vegetation manipulation treatments prescribed in all actions are consistent with management area prescriptions described in the 1986 Forest Plan (FEIS, Section 1.6.1). The management area prescriptions in the Forest Plan were found to be best suited for multiple use and diversity goals consistent with 36 CFR 219.27 in the 1986 ROD.

EVEN-AGED MANAGEMENT (36 CFR 219.27(d))

The Forest Plan, pursuant to 36 CFR 219.27(d), identifies that even-aged openings must be limited to 40 acres or less in size with some exceptions (Plan page IV-40). While there were alternatives in the draft and final EIS that would have resulted in even-aged openings over 40 acres, this decision (Alternative B) does not. All even-aged openings are limited to 40 acres or less (FEIS, Section 1.6.1).

CLEARCUTTING IS OPTIMUM (36 CFR 219.27(b)1 and USC 1604 (g)(3))

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). In addition, the FEIS, 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)].

Compliance with Other Laws and Regulations

CLEAN AIR ACT

All actions would be in compliance with the Clean Air Act. There are no Class I airsheds within or adjacent to the project area. See the FEIS, Chapter 1, Section 1.6.6.

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. 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 this end, Wisconsin developed Forestry Best Management Practices (BMPs) for Water Quality in 1995 (WDNR 1995). Project design and mitigation measures meet, and in some cases exceed BMPs. See the FEIS, Chapter 1, Section 1.6.4.

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 for water quality that meet, and in some cases exceed BMPs were incorporated into all projects. See the FEIS, Chapter 1, Section 1.6.4.

ENDANGERED SPECIES ACT (ESA) 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 the FEIS, Chapter 1, Section 1.6.2.

The US Department of the Interior, Office of Environmental Policy and Compliance, reviewed the DEIS and found that it adequately addressed species protected by the ESA and that the preferred action (Alternative B) was acceptable with respect to species covered under the ESA. See the FEIS, Appendix E, Response to Comments on the DEIS.

FINDINGS FROM THE EPA

The U.S. EPA reviewed the DEIS pursuant to the NEPA, Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act (CAA). The EPA rated the DEIS and the preferred alternative (Alternative B) as EC-2 (environmental concerns due to insufficient information). EPA found the DEIS to have insufficient information on potential cumulative effects on forest health from issues related to aspen management. More specifically, EPA's concerns were related to the potential for over population of deer, beaver, and forest tent caterpillar, and for these species to cause adverse impacts within and outside the project area as a result of maintaining or increasing their food supply (aspen). EPA also expressed an interest in seeing the potential cumulative effects on roadless areas described in the FEIS. The following describes how the FEIS addressed the EPA's concerns:

Aspen Management: In response to EPA's comments, the FEIS, Section 4.2.4 was expanded to include additional analysis on the changes in forest composition that could occur outside the project area. The DEIS contained information related to aspen management and potential cumulative effects that may occur from this management within and close to the project area. At this time, the existing condition for aspen within the project area is at the very low end of the range desired (DEIS Table 4-5, page 55). At the project area level, there is only a small increase (1-2 percent) in the aspen component with the action

alternatives that were considered (DEIS, pages 54-56). At the Forest level, the Hoffman-Sailor West project will cause no change to overall aspen composition (project record report: March 2003 Cumulative Effects Review of Foreseeable Vegetation Management on Forest Composition, Quinn) nor will there be a cumulative, substantial increase in aspen across the Forest from the other reasonably foreseeable projects that are occurring or being planned. Overall, aspen will increase less than a 1/10 of a percent. With the minor change in aspen across the Forest and only a minor increase in aspen inside the project area, there is no reason to expect a substantial increase in populations of deer, beaver, or forest tent caterpillars within or outside the project area.

While not specifically stated by EPA, it appeared that their concern about aspen management was a general Forest wide concern and not related to site-specific effects that would be occurring as a result of implementing this project. It is not within the scope of this decision to change management emphasis for the project area (early successional habitat), as this would require a major revision of the Forest Plan. The Plan is currently being revised. There are no proposals or alternatives in the revision effort that would substantially change the current management emphasis in the Hoffman-Sailor West Project area. This was previously disclosed in the DEIS, Section 4.2.4, Table 4-6, page 56.

Forest Tent Caterpillars: EPA expressed a concern that aspen management would result in increases in forest tent caterpillar populations which could lead to overall poor forest health. In response to this issue, the following information (based on fact sheets from the North Central Research Station) was added to Appendix B (non-relevant issues) of the FEIS:

“Forest tent caterpillars feed on a wide range of forest trees covering the range of major forest types on the Chequamegon-Nicolet. It prefers not only aspen and birch, but also the northern hardwood species of basswood, oak and sugar maple. Forest tent caterpillars are native to our forests and follow somewhat predictable population cycles. Although outbreaks may be somewhat spectacular, they are not considered an indicator of poor forest health, nor are they related directly to the amount of aspen on the forest. Currently the caterpillar is in a downward trend, and the past winter has significantly reduced populations on the Forest.”

Beaver: EPA expressed a concern that aspen management would result in increases in beaver populations which could lead to impacts on water quality. No specifics were identified. Potential adverse impacts resulting from beaver populations were addressed in the DEIS. Beaver activity and potential overpopulation are a concern along cold water systems where damming and removal of streamside trees could result in increases in water temperature and a change in the aquatic community. A stated objective of the Purpose and Need of the Hoffman-Sailor West project was to reduce the aspen along cold-water streams (Dalrymple Creek) in order to decrease beaver habitat (DEIS, pages 8 and 9). Beaver populations have been previously removed from Dalrymple. Treatment of aspen (conversion to species less palatable to beaver) along Dalrymple will decrease the habitat available for beaver and result in less trapping needed to prevent beaver from re-introducing themselves into the area (DEIS pages 53-54). Since the Hoffman-Sailor West activities will decrease beaver habitat in areas of concern, there is no reason to expect that the project will result in additional forest health problems from beaver.

White-Tailed Deer: EPA expressed a concern that aspen management would result in increases in deer populations which could lead to adverse impacts to other types of vegetation. No specifics were identified. The DEIS for this project did not identify any endangered, threatened or sensitive (TES) plants that would be adversely impacted by this decision. There would be no impact to population viability of TES plants (Appendix A, DEIS).

In addition, there does not appear to be a strong correlation between aspen management and increasing deer populations. The following information has been added to the FEIS, Appendix B (non-relevant issues): The Hoffman-Sailor West project area falls within deer management unit (DMU) 30 as established by the Wisconsin Department of Natural Resources (WDNR). Per information from the WDNR, deer densities (deer per square mile) have exceeded goals for DMU 30 for many of the past years. While aspen clearcuts provide food for deer, this does not appear to be the limiting factor for deer population density. Using information on the amount of clearcutting that has occurred in DMU 30 each year, there is currently no direct correlation to deer density. Severity of winters does appear to be a key factor in changes to deer populations. In 1997, a severe winter, deer density in DMU 30 dropped to 14 deer/square mile which is below the WDNR target level of 15 and a reduction from a high of 22 the previous winter. Since there was adequate available habitat (clearcuts), the reduction was likely a result of the severity of the winter. For these reasons, the aspen management in the project area is expected to maintain a food source for deer, but the amounts provided are not expected to result in any substantive changes to deer populations.

Roadless Areas: While EPA expressed a concern about the potential cumulative impacts to roadless areas, no specific impacts of concern were identified. There are no designated roadless or wilderness areas within the project area. The project area boundary was modified several years ago to avoid areas being considered for roadless and wilderness potential in the Forest Plan Revision effort (DEIS, p. 2). These potential areas are outside the project area and there are currently no plans for management activities within them. During the analysis for this project, no specific impacts to areas outside the project area were identified. Activities in the project area would not lead to any significant direct or indirect impacts to these potential, non-designated roadless areas that would preclude them from being considered for wilderness designation in the Forest Plan Revision alternatives; therefore, potential roadless areas were not considered a relevant issue for this analysis (FEIS, Section 1.6.8).

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 the FEIS.

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 the FEIS, Chapter 1, Section 1.6.3.

WILD AND SCENIC RIVERS ACT

There are no designated or candidate rivers within or adjacent to the project area. See the FEIS, Chapter 1, Section 1.6.7.

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, Chapter 1, Section 1.6.8.

Administrative Review and Appeal Opportunities

This decision is subject to appeal pursuant to 36 CFR 215.7 (November 4, 1993). An appeal must meet content requirements in 36 CFR 215.14 (November 4, 1993).

To appeal this decision, a written Notice of Appeal must be postmarked or received within 45 days following publication of a notice of this decision in the Medford Star News, Medford, Wisconsin. The Notice of Appeal must be sent to:

USDA Forest Service, Eastern Region
ATTN: Appeals Deciding Officer, Regional Forester Randy Moore
626 East Wisconsin Avenue, Suite 700
Milwaukee, WI 53202
(Facsimile number: 414-944-3963)

Detailed records of the environmental analysis are available for public review at the Medford Ranger District Office, 850 North 8th Street, Medford, Wisconsin, 54451, phone: (715)748-4875. A copy of this document is available on request. For further information on this decision, contact Jane Darnell at the Medford address or phone number.

Implementation

If no appeal is received, implementation of this decision may occur on, but not before five business days from the close of the appeal filing period. If an appeal is filed, implementation may not occur for 15 days following the date of a decision on the appeal.

/s/ Bob Hennes

BOB HENNES
District Ranger
Medford-Park Falls Ranger District

10-22-03

DATE

Attachment 1: Project Details

This attachment provides detailed activity tables and project prescription, design and mitigation tables for this decision.

Table ROD-3 shows the vegetation treatments and associated road projects for each activity identified in this decision. The project label and associated road project label can be found in the first two columns of Table ROD-3. These numbers correspond to the identification labels on the Record of Decision Maps located at the end of this document. Other information included in this table is the miles and type of road construction associated with each treatment, the type of treatment that would occur, the acres of treatment, the type of tree planting that would occur, and the project prescription, design and mitigation measures that would apply to each of the treatment areas.

Table ROD-4 shows all the road project activities associated with this decision and also displays the project prescription, design and mitigation measures that would apply to each of the road projects.

Table ROD-5 shows detailed project descriptions (prescriptions and design criteria) and mitigation measures (project design criteria which protect or enhance certain resources) that would be implemented with this decision. The far left column shows an ID# for each. The center column is the detailed narrative of the measure. The last column lists a cross-reference back to the purpose and need (Chapter 1) and/or to the issue of concern (Chapter 2) as contained in the FEIS for the Hoffman-Sailor West project. These measures are an integrated part of the decision and were developed in response to a specific need or issue identified during the analysis.

Project Label	Associated Road Projects	Miles of Associated Road Construction	Type of Road Construction	Treatment	Acres	Planting	Prescriptions, Design, and Mitigation Measures
001008				Selection Harvest	46		4, 15, 36, 43, 47, 49, 50, 60, 69, 71, 73, 74, 76
001016	R58 R59			Clearcut	12		1, 43, 46, 68, 71, 72, 73, 74, 75, 76
002001				Thinning Harvest	64		5, 17, 43, 49, 50, 60, 69, 71, 73
002002 a	R72			Clearcut	40		1, 43, 68, 71, 73, 74, 75, 76
002003				Selection Harvest	46		4, 16, 43, 47, 49, 50, 60, 69, 71, 73, 74, 76
002004				Overstory Removal	38		3, 43, 60, 69, 71, 73, 74, 76
002005				Clearcut	39		1, 43, 69, 71, 73, 74, 75, 76
002008	R75 R76			Clearcut	29		1, 43, 47, 69, 71, 73, 74, 75, 76

Table ROD-3: Site-specific Vegetation Project Information and Treatments							
Project Label	Associated Road Projects	Miles of Associated Road Construction	Type of Road Construction	Treatment	Acres	Planting	Prescriptions, Design, and Mitigation Measures
002025				Thinning Harvest	45		5, 43, 60, 68, 71, 73, 74, 76
003032	R63 B6	0.1	Temporary	Clearcut	13		1, 43, 49, 50, 69, 71, 73, 74, 75, 76
003034	R65			Clearcut	40		1, 43, 60, 68, 71, 72, 73, 74, 75, 76
003035				Opening Maintenance	3		6, 68, 71
003036 a	R71 B7			Shelterwood	39	Spot Plant	2, 23, 43, 60, 69, 70, 71, 72, 73, 74, 75, 76
003036 b	R61 B20	0.1	Classified	Shelterwood	27	Spot Plant	2, 23, 43, 60, 68, 71, 72, 73, 74, 75, 76
003036 c	R79 B7			Shelterwood	36	Spot Plant	2, 23, 43, 60, 68, 70, 71, 72, 73, 74, 75, 76
003036 d				Shelterwood	48	Spot Plant	2, 23, 43, 60, 68, 71, 73, 74, 75, 76
003036 e	R62 B7	0.1	Classified	Shelterwood	46	Spot Plant	2, 23, 43, 60, 68, 71, 73, 74, 75, 76
003036 f	B7			Shelterwood	22	Spot Plant	2, 23, 43, 60, 69, 71, 73, 74, 75, 76
004002 a	R77	0.3	Temporary	Clearcut	37		1, 43, 68, 71, 72, 73, 74, 75, 76
004014				Clearcut	26		1, 43, 49, 50, 60, 69, 71, 73, 74, 75, 76
005003	R47 R48 B18	0.1	Classified	Thinning Harvest	11		5, 28, 43, 60, 69, 71, 73, 74, 76
005005				Clearcut	25		1, 43, 60, 68, 71, 72, 73, 74, 75, 76
005006	R52			Clearcut	17		1, 43, 69, 71, 73, 74, 75, 76
005008				Thinning Harvest	20		5, 43, 60, 68, 71, 73, 74, 76
005025				Thinning Harvest	11		5, 28, 43, 60, 69, 71, 73, 74, 76
005027	R54 R55	0.1	Temporary	Clearcut	18		1, 43, 69, 71, 73, 74, 75, 76
005028 a	R53			Clearcut	12		1, 43, 46, 60, 68, 71, 73, 74, 75, 76
005031 a				Clearcut	19		1, 43, 60, 68, 71, 73, 74, 75, 76
005032				Clearcut	15		1, 43, 68, 71, 73, 74, 75, 76
005033 a				Clearcut	22		1, 43, 60, 69, 71, 73, 74, 75, 76
006001				Shelterwood	35	Spot Plant	2, 23, 43, 60, 68, 71, 73, 74, 75, 76
006002	B1			Thinning Harvest	17		5, 43, 49, 50, 51, 60, 68, 71, 73, 74, 76
006005 a				Clearcut	16		1, 26, 43, 54, 57, 63, 69, 71, 72, 73, 74, 75, 76

Table ROD-3: Site-specific Vegetation Project Information and Treatments							
Project Label	Associated Road Projects	Miles of Associated Road Construction	Type of Road Construction	Treatment	Acres	Planting	Prescriptions, Design, and Mitigation Measures
006006 a				Clearcut	13		1, 43, 54, 57, 63, 68, 71, 72, 73, 74, 75, 76
006007				Thinning Harvest	23		5, 17, 43, 56, 57, 63, 69, 71, 73, 74, 76
006014 a				Clearcut	21		1, 43, 53, 54, 58, 63, 68, 71, 73, 74, 75, 76
006020 a				Clearcut	11		1, 43, 54, 57, 63, 68, 71, 73, 74, 75, 76
006025				Clearcut	18		1, 43, 53, 54, 57, 63, 69, 71, 73, 74, 75, 76
007001 a	R73 R74			Clearcut	40		1, 43, 60, 68, 71, 72, 73, 74, 75, 76
007001 b	R74			Clearcut	17		1, 43, 49, 50, 60, 68, 71, 72, 73, 74, 75, 76
007001 c				Clearcut	29		1, 43, 53, 54, 57, 63, 68, 71, 72, 73, 74, 75, 76
007001 d				Clearcut	22		1, 43, 60, 69, 71, 73, 74, 75, 76
007001 e				Clearcut	19		1, 43, 57, 63, 68, 71, 73, 74, 75, 76
007002 a	R57	0.1	Temporary	Clearcut	24		1, 43, 68, 71, 73, 74, 75, 76
007013	G2			Opening Maintenance	1		6, 68, 71
007017 a	R60 B3	0.1	Classified	Clearcut	23		1, 43, 60, 69, 71, 73, 74, 75, 76
008002				Opening Maintenance	1		6, 68, 71
008005				Opening Maintenance	1		6, 68, 71
008009				Opening Maintenance	1		6, 68, 71
008017				Opening Maintenance	1		6, 68, 71
008019				Opening Maintenance	2		6, 68, 71
008020				Opening Maintenance	1		6, 68, 71
009003	R50 R51 B19	0.3	Classified&Temp	Overstory Removal	17		3, 43, 49, 50, 68, 71, 73, 74, 76
009010				Opening Maintenance	3		6, 68, 71
009012				Opening Maintenance	1		6, 68, 71
009014				Opening Maintenance	2		6, 68, 71
009016	B14			Clearcut	29		1, 43, 59, 60, 63, 68, 71, 73, 74, 75, 76
009017				Opening Maintenance	1		6, 68, 71

Table ROD-3: Site-specific Vegetation Project Information and Treatments							
Project Label	Associated Road Projects	Miles of Associated Road Construction	Type of Road Construction	Treatment	Acres	Planting	Prescriptions, Design, and Mitigation Measures
009019				Opening Maintenance	1		6, 68, 71
009035	R20	0.1	Temporary	Clearcut	15		1, 43, 48, 68, 71, 73, 74, 75, 76
009036				Overstory Removal	14		3, 43, 56, 58, 68, 71, 73, 74, 76
011002	R27	0.2	Temporary	Clearcut	30		1, 43, 63, 68, 71, 72, 73, 74, 75, 76
011004	R28 B17	0.2	Classified	Thinning Harvest	37		5, 43, 56, 57, 60, 63, 68, 71, 72, 73, 74, 76
011005				Thinning Harvest	36		5, 17, 39, 43, 56, 57, 60, 63, 68, 71, 73, 74, 76
011011				Clearcut	28		1, 43, 54, 57, 63, 68, 71, 73, 74, 75, 76
011016				Clearcut	21		1, 43, 54, 60, 69, 71, 72, 73, 74, 75, 76
012001 a	R49			Clearcut	16		1, 43, 53, 54, 58, 68, 71, 73, 74, 75, 76
012001 b	R49			Clearcut	11		1, 43, 54, 58, 68, 71, 73, 74, 75, 76
012013 a	R29			Clearcut	12		1, 43, 63, 68, 71, 72, 73, 74, 75, 76
012014				Clearcut	12		1, 43, 54, 57, 63, 68, 71, 72, 73, 74, 75, 76
012015 a	R26			Clearcut	36		1, 43, 63, 68, 71, 73, 74, 75, 76
012016				Thinning Harvest	12		5, 43, 56, 57, 58, 63, 68, 71, 73, 74, 76
012017				Thinning Harvest	61		5, 28, 43, 56, 57, 63, 68, 71, 72, 73, 74, 76
012018	R25			Thinning Harvest	18		5, 28, 43, 60, 63, 68, 71, 72, 73, 74, 76
012021 a				Clearcut	10		1, 43, 53, 54, 57, 58, 60, 63, 68, 71, 73, 74, 75, 76
012022				Clearcut	27		1, 40, 43, 63, 68, 71, 72, 73, 74, 75, 76
012023	R24			Thinning Harvest	?		5, 56, 57, 58, 63, 68, 71, 73, 74, 76
012026 a	R21 R22 R23			Clearcut	34		1, 43, 63, 68, 71, 73, 74, 75, 76
012042				Opening Maintenance	4		6, 68, 71
012046				Opening Maintenance	1		6, 68, 71
012047				Thinning Harvest	31		5, 43, 56, 58, 60, 68, 71, 73, 74, 76
013005 a	R10 R11 G4	0.1	Classified	Clearcut	11		1, 43, 54, 57, 63, 68, 71, 72, 73, 74, 75, 76
013021				Thinning Harvest	12		5, 17, 43, 56, 58, 68, 71, 73, 74, 76

Table ROD-3: Site-specific Vegetation Project Information and Treatments							
Project Label	Associated Road Projects	Miles of Associated Road Construction	Type of Road Construction	Treatment	Acres	Planting	Prescriptions, Design, and Mitigation Measures
013029 a	R12			Clearcut	16		1, 43, 68, 71, 72, 73, 74, 75, 76
013030	B10			Clearcut	13		1, 43, 54, 58, 68, 71, 73, 74, 75, 76
013032	B9			Thinning Harvest	8		5, 28, 43, 48, 60, 68, 71, 73, 74, 76
013049				Opening Maintenance	2		6, 68, 71
013050				Opening Maintenance	1		6, 68, 71
014013				Thinning Harvest	9		5, 28, 43, 68, 71, 73, 74, 76
014017	R15 B12			Selection Harvest	47		4, 16, 43, 60, 68, 71, 73, 74, 76
014020	R2 R3 R80	0.1	Temporary	Clearcut	37		1, 43, 49, 50, 60, 68, 71, 73, 74, 75, 76
014022 a	R18			Clearcut	35		1, 43, 49, 50, 60, 68, 71, 72, 73, 74, 75, 76
014023	R16 R17			Selection Harvest	15		4, 16, 43, 60, 68, 71, 73, 74, 76
014025	R19	0.3	Temporary	Clearcut	11		1, 43, 46, 68, 71, 72, 73, 74, 75, 76
014040				Opening Maintenance	1		6, 68, 71
014041				Opening Maintenance	2		6, 68, 71
014046	R4 B11			Thinning Harvest	30		5, 28, 43, 60, 68, 71, 73, 74, 76
014047				Clearcut	40		1, 43, 58, 60, 68, 71, 73, 74, 75, 76
014052				Clearcut	15		1, 43, 49, 50, 68, 71, 73, 74, 75, 76
015004				Opening Maintenance	0		6, 68, 71
015023				Opening Maintenance	1		6, 68, 70, 71
015027				Opening Maintenance	1		6, 68, 70, 71
015039				Opening Maintenance	0		6, 68, 71
015042				Opening Maintenance	1		6, 68, 71
015057				Opening Maintenance	4		6, 68, 70, 71
015064 a	R13 R14			Clearcut	13		1, 43, 53, 54, 58, 69, 71, 72, 73, 74, 75, 76
017003 a	R5			Clearcut/Shelterwood	16	Spot Plant West Side, Plant East Side.	1, 2, 21, 43, 60, 68, 71, 72, 73, 74, 75, 76
017003 b	R5			Clearcut/Shelterwood	28	Spot Plant East Side	1, 2, 19, 43, 46, 60, 68, 71, 72, 73, 74, 75, 76

Table ROD-3: Site-specific Vegetation Project Information and Treatments							
Project Label	Associated Road Projects	Miles of Associated Road Construction	Type of Road Construction	Treatment	Acres	Planting	Prescriptions, Design, and Mitigation Measures
017005	R6			Thinning Harvest	52		5, 28, 43, 60, 68, 71, 72, 73, 74, 76
017006	R7			Clearcut	29		1, 43, 60, 68, 71, 73, 74, 75, 76
017011 a	R8			Clearcut	34		1, 43, 60, 68, 71, 73, 74, 75, 76
017017				Clearcut	32	Plant East Side	1, 20, 43, 60, 68, 71, 72, 73, 74, 75, 76
017022	R9			Thinning Harvest	24		5, 28, 43, 60, 68, 71, 73, 74, 76
017035				Opening Maintenance	2		6, 68, 71
017036				Opening Maintenance	3		6, 68, 71
060011				Thinning Harvest	20		5, 28, 43, 56, 58, 60, 61, 69, 71, 73, 74, 76
060014				Thinning Harvest	10		5, 28, 43, 46, 56, 58, 60, 61, 69, 71, 73, 74, 76
060015				Clearcut	6		1, 43, 68, 71, 72, 73, 74, 75, 76
070024	R31			Thinning Harvest	16		5, 18, 37, 38, 43, 49, 50, 56, 58, 60, 68, 71, 72, 73, 74, 76
070026 a	R32	0.1	Classified	Shelterwood	24	Spot Plant	2, 23, 43, 49, 50, 53, 54, 56, 58, 68, 71, 72, 73, 74, 75, 76
071009	R40			Selection Harvest	69		4, 16, 43, 56, 58, 60, 68, 71, 73, 74, 76
071011	R42 R43 R45			Clearcut	26		1, 43, 54, 58, 60, 68, 71, 73, 74, 75, 76
071014 a				Clearcut	8		1, 43, 54, 57, 63, 69, 71, 73, 74, 75, 76
071014 b				Clearcut	14		1, 43, 54, 57, 60, 63, 64, 65, 66, 69, 71, 73, 74, 75, 76
071015	R38 R39 R44			Selection Harvest	79	Underplant	4, 16, 22, 37, 43, 56, 57, 63, 64, 68, 71, 72, 73, 74, 76
071016				Clearcut	13		1, 43, 54, 58, 68, 71, 73, 74, 75, 76
071017	R36			Clearcut	11		1, 43, 46, 54, 58, 60, 68, 71, 73, 74, 75, 76
071019 a	R37	0.3	Temporary	Clearcut	19		1, 43, 69, 71, 73, 74, 75, 76
071020 a				Clearcut	20		1, 43, 68, 71, 72, 73, 74, 75, 76
071026 a	R33 R35	0.1	Temporary	Clearcut	12		1, 43, 54, 58, 69, 71, 72, 73, 74, 75, 76

Table ROD-3: Site-specific Vegetation Project Information and Treatments							
Project Label	Associated Road Projects	Miles of Associated Road Construction	Type of Road Construction	Treatment	Acres	Planting	Prescriptions, Design, and Mitigation Measures
071028 a				Selection Harvest	3	Underplant	4, 16, 22, 37, 43, 56, 57, 58, 63, 64, 65, 66, 69, 71, 72, 73, 74, 76
071028 b				Selection Harvest	26	Underplant	4, 16, 22, 37, 43, 49, 50, 51, 56, 57, 58, 63, 64, 65, 66, 68, 71, 72, 73, 74, 76
071030	R30 B16	0.2	Classified	Overstory Removal	19		3, 43, 60, 63, 64, 69, 71, 73, 74, 76
071040				Prescribed Burning	16		7, 31, 44, 45, 68, 71, 73, 74
071041				Opening Maintenance	1		6, 68, 71
071042				Opening Maintenance	1		6, 68, 71
071051				Opening Maintenance	1		6, 68, 71
071052				Opening Maintenance	3		6, 68, 71
072018	R46	0.1	Temporary	Clearcut	14		1, 43, 54, 58, 68, 71, 72, 73, 74, 75, 76
072019 a	R41	0.2	Temporary	Clearcut	28		1, 43, 54, 58, 68, 71, 73, 74, 75, 76
073002	R64 B21	0.2	Classified	Selection Harvest	14		4, 16, 43, 60, 68, 71, 73, 74, 76
073006 a				Clearcut	40		1, 43, 60, 68, 71, 72, 73, 74, 75, 76
073009				Thinning Harvest	44		5, 17, 43, 49, 50, 60, 68, 71, 72, 73, 74, 76
073010				Clearcut	23		1, 43, 53, 54, 58, 60, 68, 71, 73, 74, 75, 76
073011				Clearcut	12		1, 43, 54, 58, 68, 71, 73, 74, 75, 76
073017 a				Overstory Removal	35		3, 43, 51, 56, 58, 60, 68, 71, 73, 74, 76
073021	R34 B22	0.2	Classified	Overstory Removal	38		3, 43, 56, 58, 60, 69, 71, 73, 74, 76
073022				Opening Maintenance	1		6, 68, 71
073024				Clearcut	5		1, 43, 49, 50, 54, 58, 68, 71, 73, 74, 75, 76
086012 a	R70			Clearcut	20		1, 43, 60, 69, 71, 73, 74, 75, 76
086013				Clearcut	37		1, 43, 60, 69, 71, 73, 74, 75, 76
086016	R66 R67			Thinning Harvest	56		5, 17, 43, 60, 69, 71, 72, 73, 74, 76
086024				Clearcut	18		1, 43, 60, 69, 71, 73, 74, 75, 76

Table ROD-3: Site-specific Vegetation Project Information and Treatments							
Project Label	Associated Road Projects	Miles of Associated Road Construction	Type of Road Construction	Treatment	Acres	Planting	Prescriptions, Design, and Mitigation Measures
086025 a				Clearcut	22		1, 25, 43, 60, 69, 71, 73, 74, 75, 76
086027 a				Clearcut	25		1, 43, 49, 50, 60, 69, 71, 73, 74, 75, 76
086035				Opening Maintenance	2		6, 69, 71
086036				Opening Maintenance	2		6, 69, 71
086037				Opening Maintenance	1		6, 69, 71
086042				Opening Maintenance	1		6, 69, 71
086044				Clearcut	20		1, 43, 54, 58, 69, 71, 73, 74, 75, 76
086045				Clearcut	9		1, 43, 49, 50, 53, 54, 58, 69, 71, 72, 73, 74, 75, 76
086048				Thinning Harvest	20		5, 17, 43, 60, 69, 71, 73, 74, 76
087007	R69	0.1	Temporary	Clearcut	31		1, 43, 49, 50, 69, 71, 73, 74, 75, 76
087008 a	R68	0.1	Temporary	Clearcut	30		1, 43, 49, 50, 52, 53, 54, 58, 69, 71, 73, 74, 75, 76
087011 a				Clearcut	30		1, 43, 60, 69, 71, 73, 74, 75, 76
087011 b	R78	0.2	Temporary	Clearcut	16		1, 43, 69, 71, 73, 74, 75, 76
087013				Thinning Harvest	23		5, 28, 43, 52, 56, 58, 60, 69, 71, 73, 74, 76
087019				Clearcut	28		1, 43, 60, 69, 71, 73, 74, 75, 76
DrawDns				Drawdowns			9, 41, 42
DuckBox				Duck Boxes			10, 62
WildRice				Wild Rice Planting			8, 67

Table ROD-4: Site-specific Road Project Information and Treatments					
Road Project #	Closure #	Project Description	Associated Vegetation Projects	or Associated Compartment ID #	Prescriptions, Design, and Mitigation Measures
R1		Decommission		Multiple	14, 77
R1a		Decommission		Comp 15	14, 77, 79

Table ROD-4: Site-specific Road Project Information and Treatments					
Road Project #	Closure #	Project Description	Associated Vegetation Projects	or Associated Compartment ID #	Prescriptions, Design, and Mitigation Measures
R1b		Decommission		Comp 3	14, 77, 80
R1c		Decommission		Comp 15	14, 77, 79

Table ROD-4: Site-specific Road Project Information and Treatments					
Road Project #	Closure #	Project Description	Associated Vegetation Projects	or Associated Compartment ID #	Prescriptions, Design, and Mitigation Measures
R1d		Decommission		Comp 13	14, 77, 80
R1e		Decommission		Comp 14	14, 77, 80
R2		Decommission	14020		14, 78
R3		Construct	14020		13
R4		Decommission	14046		14, 78
R5		Decommission	17003		14, 78
R6		Decommission	17005		14, 78
R7		Decommission	17006		14, 78
R8		Decommission	17011		14, 78
R9		Decommission	17022		14, 78
R10		Decommission	13005		14, 78
R11	Gate04	Construct	13005		11, 12, 81, 83, 86
R12		Decommission	13029		14, 78
R13		Decommission	15064		14, 78
R14		Decommission	15064		14, 78
R15		Decommission	14017		14, 78
R16		Decommission	14023		14, 78
R17		Decommission	14023		14, 78
R18		Decommission	14022		14, 78, 87
R19		Construct	14025		13
R20		Construct	9035		13
R21		Decommission	12026		14, 78
R22		Decommission	12026		14, 78
R23		Decommission	12026		14, 78
R24		Decommission	12023		14, 78

Table ROD-4: Site-specific Road Project Information and Treatments					
Road Project #	Closure #	Project Description	Associated Vegetation Projects	or Associated Compartment ID #	Prescriptions, Design, and Mitigation Measures
R25		Decommission	12018		14, 78
R26		Decommission	12015		14, 78
R27		Construct	11002		13
R28	Berm17	Construct	11004		11, 12, 81, 82
R29		Decommission	12013		14, 78
R30	Berm16	Construct	71030		11, 12, 81, 82
R31		Decommission	70024		14, 78
R32		Construct	70026		12, 81
R33		Construct	71026		13
R34	Berm22	Construct	73021		11, 12, 81, 82
R36		Decommission	71017		14, 46, 78
R37		Construct	71019		13, 46, 85
R38		Decommission	71015		14, 78
R39		Decommission	71015		14, 78
R40		Decommission	71009		14, 78
R41		Construct	72019		13
R42		Decommission	71011		14, 78
R43		Decommission	71011		14, 78
R44		Decommission	71015		14, 78
R45		Decommission	71011		14, 78
R46		Construct	72018		13
R47	Berm18	Construct	5003		11, 12, 81, 82, 85
R48		Decommission	5003		14, 78, 85
R49		Decommission	12001		14, 78
R50	Berm19	Construct	9003		11, 12, 81, 82

Table ROD-4: Site-specific Road Project Information and Treatments					
Road Project #	Closure #	Project Description	Associated Vegetation Projects	or Associated Compartment ID #	Prescriptions, Design, and Mitigation Measures
R51		Construct	9003		13, 85
R52		Decommission	5006		14, 78
R53		Decommission	5028		14, 78, 89
R54		Construct	5027		13
R55		Decommission	5027		14, 78
R57		Construct	7002		13, 85
R58		Decommission	1016		14, 78
R59		Decommission	1016		14, 78
R60	Berm03	Construct	7017		11, 12, 81, 82
R61	Berm20	Construct	3036		11, 12, 81, 82
R62	Berm07	Construct	3036		11, 12, 81, 82
R63		Construct	3032		13
R64	Berm21	Construct	73002		11, 12, 81, 82
R65		Decommission	3034		14, 78
R66		Decommission	86016		14, 78
R67		Decommission	86016		14, 78
R68		Construct	87008		13
R69		Construct	87007		13
R70		Decommission	86012		14, 78
R71		Decommission	3036		14, 78
R72		Decommission	2002		14, 78
R73		Decommission	7001		14, 78
R74		Decommission	7001		14, 78
R75		Decommission	2008		14, 78
R76		Decommission	2008		14, 78

Table ROD-4: Site-specific Road Project Information and Treatments					
Road Project #	Closure #	Project Description	Associated Vegetation Projects	or Associated Compartment ID #	Prescriptions, Design, and Mitigation Measures
R77		Construct	4002		13, 85
R78		Construct	87011		13, 85
R79		Decommission	3036		14, 78
R80		Decommission	14020		14, 78, 88
	Berm01	Close	6002		11, 82, 92
	Berm02	Close		Comp 86	11, 82, 85
	Berm03	Close	7016		11, 82
	Berm05	Close		Comp 5	11, 82
	Berm06	Close	3032		11, 82
	Berm07	Close		Comp 2, 3	11, 82, 85
	Berm08	Close		Comp 2, 3	11, 82, 85
	Berm09	Close	13032		11, 82
	Berm10	Close	13030		11, 82
	Berm11	Close	14046		11, 82
	Berm12	Close	14017		11, 82
	Berm13	Close		Comp 14	11, 82
	Berm14	Close	9016		11, 82
	Berm15	Close		Comp 4	11, 82
	Berm18	Close	5003		11, 82
	Close01	Close		Comp 1	11, 84, 85
	Gate02	Close	7013		11, 83
	Gate03	Close		Comp 5	11, 90

Table ROD-5: Project Prescriptions, Design and Mitigation Measures - Description		
ID#	Project Prescriptions, Design Measures, and Mitigation Measures	Issue/Need
General Project Prescriptions		
1	Clearcut Harvest: This type of harvest removes most of the overstory trees in an area which encourages regeneration of primarily pioneer types of vegetation. This is an even-aged method of harvest. Many of these areas have a hardwood, balsam fir, white spruce, and pine component in the overstory or understory. These components will remain in the newly regenerated stand by marking reserve islands (for the longer lived species) and by protecting advanced regeneration of hardwoods, fir, spruce and pine. Depending on how the area is logged, some post harvest treatments may be needed to remove unmerchantable trees that would interfere with regeneration of pioneer types of vegetation. The aspen stands that would be planned for this type of harvest would primarily regenerate to aspen. Paper birch stands proposed for this type of harvest would convert to a higher aspen percentage. Red maple and other hardwood types proposed for this treatment may have an increase in the aspen component, but are intended to remain primarily hardwood.	1.4.1 1.4.2 1.4.3 1.4.6
2	Two Stage Shelterwood Harvest: This is an even-aged method of harvest that removes a portion of the canopy and leaves a partial overstory as a seed source and a source of high shade to provide the best possible conditions to establish regeneration of a new stand of trees. The goal in most of the areas being proposed for shelterwood harvest is to regenerate some paper birch. When regenerating paper birch, some exposure of mineral soil is needed in order to provide a suitable seedbed. Following the first cut, heavy equipment will be used to expose mineral soil. Once regeneration is established (about 3years in age), the overstory will be removed in a second cut. This would occur in about 7-10 years following the first harvest treatment.	1.4.2 1.4.6
3	Overstory Removal Harvest: This type of harvest removes the overstory to allow the understory trees to become the new stand. Most of the stands proposed for this kind of harvest have an existing understory of planted white spruce. Removal of the aspen and birch overstory will allow the spruce and some hardwood to grow into the overstory and will regenerate some of the aspen and birch. The resulting composition will be a mixed stand of spruce with hardwood, aspen and some paper birch. The resulting age structure may have several age classes of trees depending on the age of the planted spruce. Spruce and hardwood pockets of a commercial size (greater than 5 inches diameter) would be thinned with this proposed treatment.	1.4.2 1.4.6
4	Selection Harvest: In a selection harvest, the types and sizes of trees being removed is not uniform. The objective is to remove individual trees of a variety of sizes in order to move the area towards an uneven-aged condition. Also, some small groups of trees are removed within each stand in order to encourage natural regeneration of seedlings. These small openings (canopy gaps) range from 20 to 60 feet in diameter and would comprise 10-16% of the stand area. Depending on the existing structure of the stand, it could take several harvest entries over a period of decades to reach an uneven-aged condition and structure.	1.4.2 1.4.6
5	Thinning Harvest: This type of harvest removes selected trees to increase growth and production on the residual trees in an even-aged stand. The trees designated for harvest would generally be the ones exhibiting slower growth rates, signs of insect or disease infestation, and having crooks, forks or other characteristics that would be less desirable for use in wood products.	1.4.2 1.4.6
6	Permanent Opening Maintenance: This project includes using mechanical methods (mowing or use of hand held brush saws), to reduce the amount of woody vegetation regenerating in open grass or brush areas.	1.4.2
7	Permanent Opening Maintenance: This project includes using prescribed burning and mechanical methods (mowing or use of hand held brush saws), in combination, to reduce the amount of woody vegetation regenerating in open grass or brush areas in one stand. Plow lines may be needed for fire breaks. Prescribed burning is generally accomplished in early spring following thaw. The best timing for killing back woody brush would be when the grasses are still dry enough to carry a fire, but the woody vegetation has started to leaf out.	1.4.2
8	Wild rice planting is proposed for the shallow bay on the southwest side of Sailor Lake. Seeding would occur for several years in a row and would continue until about 5 acres of wild rice is established. Wild rice will also be planted in Upper Squaw Creek Impoundment.	1.4.3

Table ROD-5: Project Prescriptions, Design and Mitigation Measures - Description		
ID#	Project Prescriptions, Design Measures, and Mitigation Measures	Issue/Need
9	Upper Squaw Creek Impoundment Drawdowns: In most years, water levels in this constructed water impoundment would be lowered partially during the summer to mimic natural water fluctuations, and stimulate vegetation growth. Overwinter drawdowns for this flowage are also proposed in order to keep a percentage of emergent vegetation for forage. Overwinter drawdowns are expected to be needed within the next 5 years. The proposal for overwinter drawdowns includes lowering the water levels to the creek channel. Year long drawdowns are also expected to be needed. Year long drawdowns would be considered only if the overwinter drawdowns no longer accomplish the objectives for keeping the flowage at a ratio of about 50:50 open water to emergent vegetation. In order to repair and maintain the impoundment and dam, drawdowns at other times are also proposed and would be implemented as needed..	1.4.3
10	About 20 wood duck nesting boxes will be placed around the Upper Squaw Creek Impoundment. Boxes will be placed along the shoreline or over open water and placed so that the openings would face away from other boxes in the vicinity.	1.4.3
11	Road Closure: Road closures are conducted to prevent damage to classified roads, to reduce maintenance costs, or to prevent other resource damage from occurring by allowing use of a road. Classified roads that are closed are needed for long term management of the forest, but are generally only utilized on an intermittent basis. A road may be closed either by sign, gate, berm, rock, or other materials to effectively prevent cars and trucks from utilizing the road.	1.4.7
12	Classified Road Construction: This is the construction of a road needed for long term management activities and built to a certain standard. The standards or specification of the road depends on the desired traffic service and maintenance level of the road. Construction involves, cutting and removing the merchantable trees, then grubbing out the stumps through the use of heavy equipment such as a bulldozer. The road is usually 14 feet or wider, has a road template (road crown and ditches), and would consist of native materials with some crushed aggregate.	1.4.7
13	Temporary Road Construction: Temporary roads are the lowest standard roads needed for short term (temporary) management activities. This would normally involve, cutting and removing the merchantable trees on the site, then grubbing out the stumps through the use of heavy equipment such as a bulldozer. The temporary road is usually 10 to 14 feet wide. The road surface consists of native material. If fill is needed it would be removed following completion of the activity. In some cases, a temporary road may be nothing more than a frozen down surface. If drainage structures such as temporary culverts and bridges are needed, they would be removed. Natural drainage features are restored upon completion of the activity and the road would be blocked from use with a berm, slash from harvest activity, or other methods (immediate decommissioning).	1.4.7
14	Road Decommissioning: Decommissioning is an activity that results in the stabilization or restoration of unneeded roads to a more natural state. Decommissioning may range from partial to complete restoration of the road by re-sloping the banks, restoring ditches, loosening up the compacted soil layers, reseeding open areas, and / or planting trees in the old roadway corridor. A berm is usually installed to block the road entrance from vehicle use. In many cases, effectively blocking the entrance is enough to result in re-vegetation of the road.	1.4.7
Further Project Prescriptions		
15	In these selection harvest units, utilize the stand structure guidelines found on page IV-48 of the Forest Plan. In these selection harvest units, canopy gap sizes will range from 20 to 40 feet in diameter. From 10 to 12 percent of the stand area will be harvested as canopy gaps.	1.4.2
16	In these selection harvest units, utilize the stand structure guidelines found on page IV-48 of the Forest Plan. In these selection harvest units, canopy gap sizes will range from 40 to 60 feet in diameter. About 16 percent of the stand area will be harvested as canopy gaps.	1.4.2
17	In these hardwood thinnings, short rotation species such as aspen, paper birch and balsam fir will be discriminated against.	1.4.2 2.3.1
18	In these hardwood thinnings, mature paper birch and poor quality sugar maple will be discriminated against. Favor yellow birch, red maple, and other hardwood species such as basswood and ash.	1.4.2

Table ROD-5: Project Prescriptions, Design and Mitigation Measures - Description		
ID#	Project Prescriptions, Design Measures, and Mitigation Measures	Issue/ Need
19	<p>Project 017003b will be divided into 2 units, with the dividing line between the 2 cutting units established at least 600 feet from Dalrymple Creek.</p> <p>The western portion of 017003b will be clearcut with the objective of regenerating aspen. Aspen, paper birch and hardwood will be designated for cut. There is some plantation white spruce that is about 5 inches in diameter that will be retained. There are some dry sites in this unit that can be spot planted to red pine and red oak if natural regeneration does not occur.</p> <p>The eastern portion of 017003b (the portion of the stand within 600' of Dalrymple Creek) will be shelterwood cut with the objective of regenerating to long lived conifer and northern hardwoods. The aspen will be designated for cut leaving about a 20% crown cover of paper birch to suppress the aspen regeneration. Existing hardwoods will be retained. Existing pine regeneration will be protected to the extent possible. Spot plant the area (where there isn't the desired composition of long lived species) with red pine and red oak on the dry sites and white pine and white spruce on the poorly drained sites.</p>	<p>1.4.4 2.3.4 2.3.7</p>
20	<p>Project 017017 will be divided into 2 units, with the dividing line between the 2 cutting units established at least 600 feet from Dalrymple Creek.</p> <p>The western portion of 017017 will be clearcut with the objective of regenerating aspen, though other species are acceptable. Spot plant white spruce as needed to obtain a fully stocked stand.</p> <p>The eastern portion of 017017 will be clearcut with the objective of conversion to red pine, white pine, white spruce, and hemlock. Logging should be done to produce some disturbance of the ground to create conditions for planting. Plant the area to white pine, white spruce and hemlock.</p>	<p>1.4.4 2.3.4 2.3.7</p>
21	<p>Project 017003a will be divided into 2 units, with the dividing line between the two cutting units being Forest Road (FR) 652.</p> <p>The western portion of 017003a will be clearcut with the objective of regenerating aspen, though other species are acceptable. Spot plant white spruce as needed to obtain a fully stocked stand.</p> <p>The eastern portion of 017003a will be shelterwood with the objective of regenerating the area to long lived conifer species. A residual overstory of about 20-25% will be left to suppress aspen suckering. Summer log this stand to suppress aspen suckering. White spruce, white pine, and hemlock will be planted.</p>	<p>1.4.4 2.3.4 2.3.7</p>
22	<p>Spot plant within 300' of Sailor Lake with red oak and white pine. This will be done in canopy openings or along the shoreline following selection harvest. The objective is to have some of the white pine and oak mature into the canopy. These stands would remain primarily mixed hardwoods.</p>	<p>1.4.5 2.2.1 2.3.4</p>
23	<p>These stands will be shelterwood harvested. The first cut would leave a 20-40% crown cover which would be primarily paper birch as a seed source. The reserved trees should also contain some other species such as balsam fir, spruce, and maple for species diversity. Site preparation (scarification) is to be done within 2 years after the harvest. Mineral soil on 50-60% of the ground could be exposed. In these shelterwoods, spot plant red oak on drier sites and white pine and spruce on less well drained sites to obtain a fully stocked stand following harvest and site preparation. Before the regeneration reaches more than 4 feet in height, the rest of the overstory will be removed.</p>	<p>1.4.2 2.3.4</p>
24	<p>Mark the stand as a paper birch shelterwood, leaving a 30-40% crown cover of paper birch, red maple, and other associated species, except where aspen is present. Where aspen is present do not leave any crown cover within 50 feet of any aspen. The result will be a patchy blend of mini shelterwoods and mini clearcuts. Site preparation (scarification) is to be done within 2 years after the harvest within the shelterwood areas. Mineral soil should be exposed on 50-60% of the ground. In these shelterwoods, spot plant red oak on drier sites and white pine and spruce on less well drained sites. When the oak, paper birch, red maple, white spruce regeneration is about 4 feet in height, the overstory will be removed. Where white pine is planted, the overstory will be left in place as weevil control until the white pine is 20-25 feet in height. The areas with aspen regeneration will not have any site preparation by scarification, though limited hand scalping could be done where we wish to create more within stand diversity by supplementing the aspen regeneration with planted red oak and white pine.</p>	<p>1.4.2 2.3.4</p>
25	<p>The boundary of this project (086025a) will be extended to FR 139F on the western side.</p>	

Table ROD-5: Project Prescriptions, Design and Mitigation Measures - Description		
ID#	Project Prescriptions, Design Measures, and Mitigation Measures	Issue/Need
26	The 2-6" diameter white spruce in this clearcut harvest area should be reserved and protected to the extent possible during logging.	1.4.2 2.3.4
27	Protect advanced balsam fir regeneration where possible. Regenerate stand to a mixed aspen and balsam fir stand.	1.4.2 2.3.4
28	In pine and spruce stands, thinning harvest should be done in such a way as to leave other minor species components within the stand and to break up plantation rows along open travel corridors. No more than 40% of the basal area should be removed from any pine or spruce stand during any one thinning.	1.4.2 2.3.4
29	Wait one growing season after logging to give aspen a chance to sprout, then do a stocking survey. Follow up with site preparation and plant white spruce where the aspen regeneration is inadequate to fully stock the site.	1.4.2 2.3.4
30	Protect as many of the planted white spruce in the understory as possible.	1.4.2 2.3.4
31	Use a combination of mechanical brushing and burning to keep the area in an open grassland condition for a variety of species that need this type of habitat. Its proximity to Sailor Lake also will make it available as a waterfowl feeding area. Prescribed burning will not occur on a yearly basis, but will be timed to allow fuel buildup. Mechanical brushing can also be used to reduce woody vegetation encroachment.	1.4.2 1.4.3
32	This project area will be divided into 2 harvest units. For a distance of 300 feet from Dalrymple Creek, and for a 100 foot distance from the perennial stream to the west, the stand will be marked as a shelterwood, leaving 60 Basal Area (BA) of residual merchantable sized trees. Preferred residual would be white spruce, hemlock, white spruce, and hardwood; however, since there are not enough of these species present, some aspen and paper birch will be left. A mixture of white pine, hemlock and red oak will be hand planted. Seedling protection methods such as vexar tubes, repellent sprays, etc. will be used to protect the seedlings from deer browse. The remainder of the stand will be clearcut and regenerated to aspen.	1.4.4 2.3.4 2.3.7
33	Project 017003 will be divided into 2 units, with the dividing line between the cutting units being established at least 300 feet from Dalrymple Creek. East: The eastern portion of 017003 (the portion of the stand within 300' of Dalrymple Creek) will be a shelterwood cut with the objective of regenerating it to long lived conifer and northern hardwoods. The aspen will be designated for cut leaving about a 20-25% crown cover of primarily paper birch to suppress the aspen regeneration. Existing hardwoods will be retained. Existing pine regeneration will be protected to the extent possible. Spot plant the area (where there isn't the desired composition of regeneration) with red pine and red oak on the dry sites and white pine, white spruce, and hemlock on the poorly drained sites. Summer log to minimize aspen regeneration. West: The western portion of 017003 will be clearcut with the objective of regenerating aspen. Aspen, paper birch and hardwood will be designated for cut. There is some plantation white spruce that is about 5 inches in diameter that will be retained. If and where natural regeneration does not occur, do site prep, followed by planting red pine and red oak on the dryer sites and white spruce on the wetter sites.	1.4.4 2.3.4 2.3.7
34	Reserve northern hardwood and merchantable size white spruce for visual quality reasons.	1.4.2 2.2.3 2.3.4
35	Reserve any white pine that has a sound top. Cut the white pine with blister rust infected tops.	1.4.2 2.3.4
Project Design and Mitigation Measures		
36	In stands where hemlock is less than 10% of the basal area, all hemlock will be reserved rather than harvested. Release of under story or sub-canopy hemlock is encouraged.	1.4.2 2.3.4

Table ROD-5: Project Prescriptions, Design and Mitigation Measures - Description		
ID#	Project Prescriptions, Design Measures, and Mitigation Measures	Issue/Need
37	Any existing white or red pine greater than 5" in diameter at breast height (DBH), in activity areas adjacent to Sailor Lake, will be reserved from harvest.	1.4.2 1.4.5 2.2.1 2.3.4
38	Site disturbing land use activities (including timber harvesting activities) will not be permitted from February 15 to August 1.	2.2.1
39	Thinning will be done in a manner that would limit any canopy gap to no more than 40 feet in diameter. No more than 12 percent of the stand area will be harvested as canopy gaps.	2.3.1
40	Any healthy American elm greater than 5" in diameter at breast height (DBH) will be reserved from harvest.	2.3.1
41	Mid-summer, partial drawdowns of Upper Squaw Creek Impoundment are subject to the following conditions: The water drawdown will start no sooner than July 1 st and water levels will be back to full pool by October 1. The water will be drawn down to the extent needed to expose mudflats. The water will be drained slowly, not exceeding more than 5 inches per day. When refilling, a minimum of 25% of the base flow of the stream will be allowed to pass downstream.	2.3.1 2.3.2 2.3.7
42	Full, overwinter drawdowns of Upper Squaw Creek Impoundment will be used when areas of wild rice are becoming established, 1-3 years following planting. Full, overwinter and year-long drawdowns will be used to stimulate wild rice growth and control submergent vegetation when more than 30% of the open water is covered with undesirable vegetation (submergent mats, coontail, lily pads). These drawdowns are subject to the following conditions: The water drawdown will start around the middle of October and be completed before freeze up in the middle of November. The water will be drained slowly, not exceeding more than 8 inches per day. Water levels will be brought back to full pool starting with spring thaw (generally sometime in March) and ending in the middle of April. When refilling, a minimum of 25% of the base flow of the steam will be allowed to pass downstream.	2.3.1 2.3.2 2.3.7
43	When seeding grasses on disturbed soils, a combination of 2 or more species will be used. The seed types used will be native.	2.3.3
44	A site specific burn plan that falls within acceptable parameters for safety, smoke management, and resource effects will be completed with approved signatures before any prescribed burning can take place.	2.3.8
45	Prescribed burning will not occur on opening weekend of fishing season, on the Memorial Day weekend, on the 4th of July, or on Labor Day weekend.	2.3.8 2.3.12
46	All activities will be designed to avoid known heritage sites. This can be accomplished by ensuring that the treated project area boundary excludes the known site, by treating the known site as a leave island within the project area, etc. There will be no earth or vegetation disturbing activities permitted within a heritage site boundary. Any heritage sites within or near a project activity will be monitored to ensure that an impact is not occurring.	2.3.9
47	Road easements or permits or landowner permission is needed prior to use of portions of roads leading to these activity areas.	2.3.10
48	The road approach onto FR 136 will be realigned for safety/visibility purposes prior to hauling from these units.	
49	Any tree tops and other logging debris that falls onto private land will be removed (pulled back to National Forest System land).	2.3.10
50	Where proposed harvest unit boundaries are adjacent to private property, property boundaries will be established to standard (appropriate corner monuments are placed and boundary line has survey markers placed every 200') to avoid potential trespass situations.	2.3.10

Table ROD-5: Project Prescriptions, Design and Mitigation Measures - Description		
ID#	Project Prescriptions, Design Measures, and Mitigation Measures	Issue/Need
51	Roads under special use permits for access to private land will be kept clear and usable during timber harvest operations and will be maintained to their existing condition during harvest operations. All decking, skidding, and hauling will be done in such a way as not to unreasonably block or prevent the permittee's access to their property. Skidding timber on the surface of the special use road will only be allowed during frozen ground conditions.	2.3.10
52	Within the project area, along the southern end of FR 139, there are special use permits for buried telephone and electrical power lines. The timber sale contract will include "protections of improvements" clause and identify known locations of buried and overhead lines. The operating plan for harvest units along the southern end of FR 139 will include notification to the timber sale contract holder that there are buried and overhead lines along FR 139 and contact of the utility company is required prior to any activity that may disturb these lines.	2.3.10
53	The length of temporary openings resulting from clearcutting and the 2 nd cut of shelterwood harvests cannot exceed 900 feet along travel corridors and water bodies managed for retention and partial retention visual quality objectives (sensitivity level 1 & 2 areas). Corridors subject to this mitigation are State Highway 70, FR 139, FR 138, FR 136, Forest Trail (FT) 102, and FT 121/130.	2.2.3
54	Along travel corridors and water bodies managed for retention and partial retention visual quality objectives, temporary openings resulting from clearcutting and the 2 nd cut of shelterwood harvests will be designed to blend with the surrounding landscape. Techniques to accomplish this include, but are not limited to feathering heights of the vegetation around the edges of the opening, placing reserve islands along travel corridors, and by keeping snag and cull tree retention in the visual background. Corridors subject to this mitigation are Highway 70, FR 139, FR 138, FR 136, FT 102, and FT 121/130.	2.2.3
55	Clearcuts and the 2 nd cut of shelterwood harvests will be designed in such a way as to break up long sight distances by leaving about 200 feet of standing patches of trees (these could be present and future den/snag trees, and mast or budding trees for wildlife). Patches of mature trees left within a clearcut or shelterwood harvest area should meet wildlife and visual quality objectives when possible. All temporary openings resulting from clearcutting and shelterwood harvests will have a natural appearing, irregular shape. Corridors subject to this mitigation are State Highway 70, Forest Road (FR) 139, FR 138, FR 136, FT 102, and FT 121/130.	2.2.3
56	Within 100 feet of travel corridors and water bodies managed for retention and partial retention visual quality objectives, marking paint will face away from the corridor as much as possible (in some cases, it may be necessary to place some paint at the base of the tree that would be facing the corridor). Sailor Lake shoreline is subject to this mitigation. Corridors subject to this mitigation are Highway 70, FR 139, FR 138, FR 136, FT 102, and FT 121/130.	2.2.3
57	Along FT 102, and 121/130, the following slash disposal guidelines will apply: Logging slash will be completely removed from the edge of the cleared right of way back 15 feet. From 15 feet to the "seen" area or 50 feet (whichever comes first) away from the right of way, slash will be lopped and scattered to a height not to exceed 24 inches.	2.2.3
58	Along Highway 70, FR 139, FR 138, FR 136, and Sailor Lake Campground, the following slash disposal guidelines will apply: Logging slash will be completely removed from the edge of the cleared right of way back 50 feet. From 50 feet to the "seen" area or 100 feet (whichever comes first) from the edge of the right of way, slash will be lopped and scattered to a height not to exceed 24 inches. In addition, along Highway 70, logging slash from 100 feet to the "seen" area or 300 feet will be lopped and scattered to a height not to exceed 48 inches.	2.2.3
59	Along all other forest trails (as listed in Appendix A of the Hoffman-Sailor West Roads Analysis), the following slash disposal guidelines will apply: All logging slash will be completely removed from the cleared right of way. All logging slash will be lopped and scattered to a height not to exceed 24 inches from the edge of the cleared right of way back 15 feet.	2.2.3
60	Along FR 508, FR 550, and all other, classified roads (as listed in Appendix A of the Hoffman-Sailor West Roads Analysis) logging slash will be completely removed from the edge of the cleared right of way back 10 feet unless slash is a part of road closure mitigation stated elsewhere in this document.	2.2.3
61	No logging decks are permitted within 50 feet of the cleared right of way on the portion of FR 139 from Sailor Lake Picnic Area north to Highway 70.	2.2.3

Table ROD-5: Project Prescriptions, Design and Mitigation Measures - Description		
ID#	Project Prescriptions, Design Measures, and Mitigation Measures	Issue/Need
62	Posts used to install duck boxes will be made of a material and color to blend with the surrounding landscape.	2.2.3
63	<p>Portions of FT 102, FT 128 (FR 136D), and FT 130 are hunter walking trails that can be used for access to harvest units when no other access route exists. Portions of FT 102 and FT 121(which is also FT 130) are motorized trails that can be used for access to harvest units when no other access route exists. When used for access, the following restrictions apply:</p> <p style="padding-left: 40px;">These trails can be used for hauling wood and transporting equipment and personnel to the harvest unit.</p> <p style="padding-left: 40px;">Skidding (operations where logs would drag on the trail surface) is prohibited on the trails except where crossings are needed and designated by the timber sale administrator. Skid crossing areas must be placed so that they can be seen from a safe distance in either direction.</p> <p style="padding-left: 40px;">Log landings must be placed off the trail far enough so that logs and logging vehicles will not be within the cleared right of way.</p> <p style="padding-left: 40px;">Harvest equipment cannot be parked or left within the clearing limits of the trail.</p> <p style="padding-left: 40px;">Warning signs will be posted along the trail when harvest activity is occurring. Signs must be posted so that trail users coming from either direction will be adequately warned of logging activity ahead. All logging vehicles will drive with headlights on while using the trails.</p> <p style="padding-left: 40px;">A speed limit of ten miles per hour will be posted on sections of trails where timber harvest activity is occurring. This speed limit applies to all users of the trail when posted.</p> <p style="padding-left: 40px;">These trails will be kept in a condition of good repair so that they can be safely used by all. Any damage to the trail resulting from timber harvest use will be repaired immediately.</p> <p style="padding-left: 40px;">When snow is present on FT 121, and 102, snow plowing for harvest activity must be done in such a way as to leave sufficient snow for snowmobile use (a minimum of 2 inches of compacted snow or 4 inches of loose snow), and that it be plowed wide enough (where possible) to allow snowmobiles and logging trucks to pass at the same time.</p> <p style="padding-left: 40px;">Hauling on hunter walking trails will be prohibited on weekends and holidays during regular deer and grouse seasons.</p> <p style="padding-left: 40px;">Hauling on motorized/snowmobile trails will be prohibited on weekends, holidays, and from December 20 through January 5.</p>	2.3.11
64	Timber harvest operations (cutting or skidding) are not permitted adjacent (within ¼ mile of improvements) to Sailor Lake Campground from May 1 through November 1, which is the period when the campground is open.	2.3.12
65	No log decking areas are permitted within 100 feet of the cleared right of way on Forest Road 138. All logging activity or decking is prohibited within the Sailor Lake Campground area.	2.3.12
66	The harvest boundary of the harvest units adjacent to Sailor Lake Campground will be established at a minimum of 50 feet from any campsite or improvements.	2.3.12
67	In order to reduce potential impacts to recreation use of Sailor Lake, wild rice planting will occur only in the southwest bay of Sailor Lake. About 5 acres will be established. Wild rice will be kept away from the shoreline adjacent to the Sailor Lake Campground and private property on the east shoreline.	2.3.12
68	Operation of heavy equipment within timber harvest units that have soils that are easily rutted or compacted only when soil moisture is high or during spring breakup will be subject to the following mitigation: Operation of harvesting and hauling equipment will be permitted only when soils are dry or frozen. Evidence of rutting, compaction, or erosion will be the determining factor for halting timber harvest operations.	2.3.5
69	Operation of heavy equipment within timber harvest units that have soils that are easily rutted or compacted any time of the year depending on soil moisture conditions will be subject to the following mitigation: Operation of harvesting and hauling equipment will be permitted only when soils are dry or frozen. Evidence of rutting, compaction, or erosion will be the determining factor for halting timber harvest operations.	2.3.5
70	Temporary road and skid trail slopes will generally be kept less than 10%. Where temporary roads and skid trail slopes exceed a 10% slope, water diversion structures (lead off drainages, water bars, etc.) will be installed based on the guidelines in Wisconsin’s Forestry Best Management Practices for Water Quality (BMPs). Stabilization and seeding of disturbed soils on slopes greater than 10% are required following project implementation. This would include stabilization and seeding of temporary roads, skid trails, and landings.	2.3.5 2.3.7

Table ROD-5: Project Prescriptions, Design and Mitigation Measures - Description		
ID#	Project Prescriptions, Design Measures, and Mitigation Measures	Issue/Need
71	<p>Avoid use of heavy equipment in wetlands where possible. Small wetland pockets and woodland ponds will be avoided because equipment and vehicles can go around them. New roads and skid trails will also avoid wetland pockets and ponds. Wetland pockets and ponds will be avoided by designing roads and skid trails to go around them, by marking them on sale maps as reserve areas, and by other methods.</p> <p>Some long, narrow wetlands, or larger wetlands that isolate upland forest land that cannot be avoided during harvest operations. Within harvest units, on skid trails, unimproved roads, and on newly constructed roads, wetlands can be crossed by heavy equipment under the following conditions: Essential crossings will be designated during project design and/or by the sale administrator prior to use. Operation of heavy equipment (this includes trucks and passenger vehicles, harvesting and hauling equipment) in wetlands will only be allowed under frozen conditions or as necessary to pack and freeze a crossing. If there is still open water within the wetland crossing, temporary drainage and support structures including floating mats, culverts, corduroy, chunkwood, or portable bridges will be used to maintain cross flow, subsurface drainage patterns, and to support equipment and vehicles. All drainage structures, support structures, and temporary fill will be removed after use is completed and the area will be restored to its original elevation.</p> <p>Wetlands and woodland ponds will not be used for log landings or slash disposal areas.</p>	2.3.6
72	<p>Along all navigable streams (all those currently showing on USGS topographical maps and are generally perennial or intermittent), lakes, and impoundments, logging slash will be removed 100 feet beyond the high water mark.</p> <p>Operation of logging equipment (skidders, feller/bunches, haul trucks) and construction of temporary roads, skid trails and log landings are prohibited along navigable streams within 100 feet of the high water mark. When slopes facing the drainage are 30% or greater and continue beyond 100 feet in horizontal distance from the high water mark, then these practices are prohibited from the high water mark to 20 feet beyond the first break in the slope facing the water.</p> <p>Within 100 feet of all navigable streams (all those currently showing on USGS topographical maps and are generally perennial or intermittent), lakes, and impoundments, harvest prescriptions will leave at least 60 square feet of basal area per acre in trees 5 inches in diameter and larger. Long lived tree species will be promoted over pioneer types of vegetation such as aspen, paper birch and balsam fir.</p>	1.4.4 2.3.7
73	<p>Along all non-navigable streams (those drainages which may be found during project design, but are not currently showing on USGS topographical maps, and are intermittent or ephemeral in nature), logging slash will be removed from the visible channel.</p> <p>Operation of logging equipment (skidders, feller/bunchers, haul trucks) and construction of temporary roads, skid trails and log landings are prohibited along non-navigable streams within 15 feet of the high water mark except at designated crossings.</p> <p>Non-navigable stream crossings will be designated and approved by the Forest Service. Crossings will be designed to cross channels at right angles. Road and skid trail surfaces approaching the channel will be designed to prevent runoff from entering the channel. Use of stream crossings during winter months or dry months will be encouraged to minimize the potential for erosion and sedimentation (normal low or no flow periods). Temporary drainage structures including culverts or portable bridges will be used to maintain the expected stream flow. Use of temporary fill will be kept to a minimum. Temporary fill material will be stabilized to prevent washing into drainages (by rip rap, sediment fence, or other methods). All drainage structures and temporary fill will be removed after use is completed and the area will be restored to its original contours and stabilized.</p>	2.3.7
74	<p>Purposeful release of any fuel, lubricant, or antifreeze on the Forest is prohibited. Accidental spills of these substances must be reported as soon as possible to the Wisconsin Department of Natural Resources and the Forest Service.</p> <p>Refueling and lubrication of equipment will not occur within 100 feet of surface water (streams, wetlands, etc.).</p>	2.3.6 2.3.7
75	<p>In clearcut and shelterwood areas that are about 15-25 acres, leave a 1 acre island of upland, mature forest. In areas that are from 26 acres to 40 acres, leave two, 1 acre islands of upland, mature forest. In areas that are over 40 acres, leave 5-10% of the area in mature islands ranging in size from 2 to 10 acres each. Conifer, if present within the stand, should be represented in the leave islands. Placement of leave islands should be coordinated to meet visual quality objectives when possible.</p> <p>In clearcut and shelterwood harvest areas, maintain at least 2 snags per acre that are at least 12" in diameter (maintain smaller diameter snags if there are not any that are greater than 12").</p>	1.4.3 2.3.4

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ID#	Project Prescriptions, Design Measures, and Mitigation Measures	Issue/Need
76	In all timber harvest areas, reserve at least 2 den trees per acre and 2 snags per acre. Leave some mast and fruit producing trees when present (oak, hickory, cherry, ironwood). Leave all apple and plum trees.	2.3.4
77	Decommission any time.	1.4.7
78	Decommission with timber harvest sale.	1.4.7
79	This road accessing the Hogsback Hiking Trail, will be decommissioned with berms, ripping, and planting of trees.	1.4.7
80	Leave for parking or log decking area.	1.4.7
81	Construct to traffic service level D standards.	1.4.7
82	Close with berm, rocks, or other methods.	1.4.7
83	Close this road with a gate.	1.4.7
84	Close with berm, rocks, gate or other methods.	1.4.7
85	Frozen use/access only.	2.3.5 2.3.6 2.3.7
86	This replaces a portion of FT 130/121. This will be a dual use trail and road with a gate off of FR 136.	1.4.7
87	When decommissioning this road, block access on both ends.	1.4.7
88	When decommissioning this road, block access (construct closures) on both ends.	1.4.7
89	Decommission all but the north end of this road and leave as a turnaround.	1.4.7
90	Future access to gravel pit. Berm now. When the road is reconstructed for access to the pit, replace the berm with a gate.	1.4.7