Alternative A—Current Management Direction

Introduction

The following tables contain the existing and proposed standards and guidelines providing management direction under Alternative A, the no-action alternative. As stated in Chapter 2, management direction for Alternative A comes from the 1988 Sequoia National Forest Land and Resource Management Plan (Forest Plan; in this appendix also referred to as LRMP)(USDA Forest Service 1988a) as amended by the 1991 Kings River Wild and Scenic River and Special Management Area Implementation Plan (KRSMA), the 2001 Sierra Nevada Forest Plan Amendment (2001 SNFPA)(USDA Forest Service 2001c), and the 2007 Sierra Nevada Forests Management Indicator Species Amendment (USDA Forest Service 2007a).

The standards and guidelines from the Forest Plan are those from the forest-wide list, as well as some used for individual management emphasis prescriptions that are still in effect after the 2001 SNFPA amended the Forest Plan (Forest Plan, Chapter 4, pages 4-16 to 4-39, and 4-42 to 4-90). The 2001 SNFPA standards and guidelines are from the record of decision (USDA Forest Service 2001e, Appendix A. Note that the 2001 SNFPA Final Environmental Impact Statement (USDA Forest Service 2001d), Volume 1, page 21, states, "This FEIS meets Forest Service obligation regarding the NEPA process for livestock grazing, oak management, old growth, wildlife, fisheries, and riparian area management." It also states, "Management direction and land allocations in existing LRMPs that are not affected, modified, or in conflict with my decision will remain in effect" (2001 SNFPA, ROD, page 3).

This section also contains the standards and guidelines proposed by the MSA or that need modification to comply with the Clinton proclamation (Clinton 2000). The MSA standard and guideline recommendations are directly from the MSA document (USDA Forest Service 2007a). Quotations from the Clinton proclamation are provided where necessary to clarify where standards and guides need to be modified or eliminated.

However, the MSA recommended changes to specific management areas and associated management emphasis described the Forest Plan prior to the plan's being amended by the 2001 SNFPA. Therefore, portions of the Forest Plan and/or MSA recommended direction are shown as strikethrough text to more clearly display the current management situation.

In addition, because of the elimination of the vegetation-based management areas per the 2001 SNFPA, several standards and guidelines are now lumped together under the remaining management emphases (developed recreation, water-oriented recreation, general dispersed recreation, and wildlife and dispersed recreation). They may appear as duplicates where the language is exactly the same or redundant where there are slight variations in wording. The action alternative all propose "clean up" of these redundancies as applicable.

Vegetation, including Giant Sequoia Groves

Vegetation Management

Table 1 Alternative A–Standards and Guidelines for General Vegetation Management

LRMP as Amended	MSA	Proclamation
Timber/vegetation management		
AMENDED by 2001 SNFPA (See the following tables regarding vegetation management in this section): ~~Apply uneven-aged management single tree selection as the principal silvicultural system within foreground of roads, trails, and high use sites that are sensitivity level 1 and streamside management zones.~~ ~~Apply even-aged management or uneven-aged management group selection within middle ground view of roads, trails and high use sites that are Sensitivity level 1 and within giant sequoia groves designated for non-intensive management. The system to be selected will meet the assigned visual quality objective and the silvicultural requirements of the site.~~ ~~Apply uneven-aged management group selection as the principal Silvicultural system within foreground of sensitivity level 2 roads and Trails, Monache meadow viewshed, sherman pass viewshed, and salmon Creek/big meadow area. Within these areas even-aged prescriptions are allowed where terrain stand characteristics, operational factors, or non-timber objectives make this necessary and justified by the project environmental analysis.~~ ~~Utilize the following criteria to allow even-aged silvicultural systems in sensitivity level 1, middleground areas when harvest practices and related activities:~~ 1. ~~Do not visually detract from class landscape feature or an identified focal point;~~	~~Apply uneven-aged management single tree selection as the principal Silvicultural system within foreground of roads, trails, and high use sites that are sensitivity level 1.~~ ~~Apply even-aged management or uneven-aged management group selection within middle ground view of roads, trails and high use sites that are Sensitivity level 1. The system to be selected will meet the assigned visual quality objective and the silvicultural requirements of the site. (MSA p. 84)~~ Silvicultural Systems 1. Both even-aged and uneven-aged silvicultural systems shall be evaluated and used on the forest as appropriate to given site. 2. Uneven-aged management: a. ~~Uneven-aged management shall be conducted as regulation class 2, which corresponds to an average rotation age of 140 years.~~ b. Both natural and artificial regeneration shall be used as appropriate. c. Openings created by group selection shall be limited generally to two acres. Larger openings will be allowed only where necessary to achieve specific silvicultural goals that are stated in the applicable NEPA document and only if approved by the forest supervisor. d. Apply uneven-aged management single tree selection, as the principal silvicultural system within	Timber sales under contract as of the date of the proclamation and timber sales with a decision notice signed after January 1, 1999, but prior to December 31, 1999, may be completed consistent with the terms of the decision notice and contract. No portion of the Monument shall be considered to be suited for timber production, and no part of the Monument shall be used in a calculation or provision of a sustained yield of timber from the Sequoia National Forest. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
2. ~~Are screened by terrain;~~ 3. ~~Occur at or near perpendicular angle to the direction of travel; or~~ 4. ~~Occur in low variety landscapes.~~ ~~Apply even-aged management as the principal silvicultural system on all land to be managed for timber production where unevenaged management is not specified.~~ (LRMP p. 4-31)	foreground of roads, trails and high use sites that are sensitivity level 1. e. ~~Generally apply uneven-aged silvicultural systems in Sensitivity Level 1, middleground areas. Allow even-aged silvicultural systems in such areas only when harvest practices and related activities: a) Do not visually detract from a Class A landscape feature or an identified focal point; b) Are screened by terrain; c) Occur at or near perpendicular angle to the direction of travel; d) Occur in low variety landscapes.~~ f. Apply even-aged management or uneven-aged management within middleground view of roads, trails and high use sites that are sensitivity level 1. The system to be selected will meet the assigned visual quality objective and the silvicultural requirements of the site. g. ~~Apply uneven-aged management single tree or group selection as the principal silvicultural system within foreground of Sensitivity Level 2 roads and trails, Sherman Pass viewshed, Salmon Creek-Big Meadow area and other areas to be agreed upon in negotiations over special areas. Within these areas even-aged prescriptions are allowed only where terrain stand characteristics, operational factors or non-timber objectives make this necessary and justified by the project environmental analysis.~~ (MSA, Exhibit N, p. 1)	

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
Retain all live conifer trees with dbh of 30 inches or greater in westside forest types. Retain montane hardwoods with dbh of 12 inches dbh or larger in westside forest types. Occasional mortality of larger trees is expected to occur; however, design prescribed burn prescriptions and techniques to minimize the loss of large trees and large down material (SNFPA ROD, Appendix A, p. A-28).	All giant sequoias 3 feet or larger dbh in Converse Basin shall be preserved, regardless of any other permitted logging activity. Small giant sequoias may be cut along with other species (MSA, page 27). Naturally occurring giant sequoia trees (under 3 feet dbh) located inside of the Grove Influence Zone shall be protected from all logging operations, including specifically the root system. Every reasonable effort shall be made to protect naturally occurring giant sequoia trees (under 3 feet dbh) located outside of the Grove Influence Zone from road construction, ~~cable logging,~~ and other ~~logging~~ activities (MSA pp. 20-21).	Timber sales under contract as of the date of the proclamation and timber sales with a decision notice signed after January 1, 1999, but prior to December 31, 1999, may be completed consistent with the terms of the decision notice and contract. No portion of the Monument shall be considered to be suited for timber production, and no part of the Monument shall be used in a calculation or provision of a sustained yield of timber from the Sequoia National Forest. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
Management emphasis 1—general dispersed recreation		
~~Limit regeneration acres and stand sizes by visual, fish and wildlife considerations.~~ (LRMP p. 4-52)		Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
Recognize fire risk created by dispersed recreation use in activity fuel treatment plans. (LRMP p. 4-52)		
~~Schedule no harvesting in SPNM areas.~~ (LRMP p. 4-52)		Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
Management emphasis 4—wilderness		
Do not permit harvesting. (LRMP p. 4-65)		
Management emphasis 5—~~wildlife~~ dispersed recreation		
Utilize all methods of regeneration. (LRMP p. 4-75)		
Protect plantations from wildlife damage throughout the establishment period then encourage utilization of forage. (LRMP p. 4-75)		

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
~~Limit openings to less than 25 acres in size and greater than 300 feet apart.~~ (LRMP p. 4-75)		Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
~~Management area: (CF6) mixed conifer—emphasis grazing of livestock~~		
AMENDED by 2001 SNFPA: ~~Limit stand sizes and regeneration acres around meadows.~~ (LRMP p. 4-87) riparian conservation objective #2, (SNFPA ROD, Appendix A, pp. A-54-55)	~~Implementation: Activities that take place on or within 250 feet of a meadow require site specific investigation during project planning to describe the risk of altering the hydrologic characteristics. Proposed management activities need to consider direct and indirect effects on the meadows hydrologic character. Activities will be evaluated through an ID team process including consulting with cooperating agencies, individuals and permittees.~~ ~~An initial assessment will be conducted to determine if erosion is occurring in the meadow from readily identifiable sources. If erosion is occurring identify activities which are the cause. Existing adverse conditions will be identified through the Watershed Improvement Needs.~~ ~~Inventory (WINI) (FSH 2509.15, form FS-2500-7). Plans will be developed from prioritized WINI inventories to re-establish hydrologic characteristics and riparian habitat. Native plant species will be given preference when seeding is required in meadow and riparian habitats.~~ ~~Effects from offsite activities will be evaluated by tracking past management activities and assessing stream channel stability.~~ Use the Sequoia NF Cumulative Watershed Effects Working Guide, 1987 (FSH 2509.22 Sequoia Supplement #1) and Pfankuck Stream Reach and Channel Stability Inventory rating system (BMP 7.8). (MSA, Appendix D, p.9)	

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
~~Cutting methods~~		
~~Limit regeneration areas requiring reforestation to 25 acres without approval of the forest supervisor.~~ ~~Limit group selection regeneration areas under uneven-aged management to two acres without approval of the forest supervisor~~ (LRMP p. 4-31)	Clearcutting and Other Forms of Even-aged Management: a. ~~The Forest is taking steps to modify and reduce the impacts of clearcutting. These stpes include such measures as retention of existing reproduction where feasible, identification and retention of wildlife clumps within cutting units, retention of snags and dead-and-down material, and greater retention of slash and ground cover than has been customary. One example of the Forest's new approach is the use of modified form of clearcutting called "Regeneration Mosaic" cutting, which is defined in appendix 1 (of the MSA?)~~ b. ~~Determination of Clearcut: Clearcutting as regeneration harvest tool shall be used only where (a) it is determined to be the optimum method to achieve management objectives on site-specific basis; (b) the potential environmental biological aesthetic, engineering and economic impacts on the advertised sale area have been assessed as well as the consistency of the sale with the multiple use of the general area; (c) cuts are carried out in manner consistent with the protection of soil, watershed, fish, wildlife, recreation and aesthetic resources and the regeneration of the timber resource and (d) cut blocks patches or strips are shaped and blended to the extent practicable with the natural terrain. Clearcutting shall not be selected as harvesting method primarily because it will give the greatest dollar return or the greatest unit output of timber.~~	Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
	c. ~~Size limits: (1) On cable ground, clearcuts and seed trees cuts shall be limited to maximum size of 15 acres unless site-specific analysis documents reasons for exceeding 15 acres and the action is approved by the Forest Supervisor. Where feasible, smaller openings shall be used. (2) On tractor ground where clearcutting or seed tree cutting is used, no continuous opening shall exceed ten acres in size even though the harvested area may exceed ten acres without the approval of the Forest Supervisor with specific reasons stated in the decision document. (3) Limit regeneration areas requiring reforestation to 25 acres without approval of the Forest Supervisor. (4) Reasons for exceeding size limits are responding to an insect or disease infestation; limitations of cable logging (i.e., need to reach a corner); salvage logging of fire-damaged trees; and limitations imposed by the existing road configuration. It is the intent of the USFS, however, to operate within the size limits wherever feasible and to exceed them only rarely.~~ d. ~~d. In clearcut units, healthy and vigorous advanced regeneration will be saved wherever feasible including on cable-logged ground. Clearcutting shall not exceed 600 acres per year annual average per decade.~~ (MSA, Exhibit N, pp. 2-3)	
~~Harvest system~~		
~~Use variety of logging system to harvest forest products. Generally use ground-based system (such as tractors) on slopes of less than 40 percent, and aerial systems (such as highlead, skyline, or helicopters) where slopes exceed 40 percent.~~ (LRMP p. 4-32)	1. ~~Use a variety of logging systems to harvest forest products. Use ground-based systems (such as tractors) on slopes of less than 35 percent, and aerial systems (such as highlead, skyline, or helicopters) where slopes~~	Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
	~~exceed 35 percent, unless the Forest supervisor makes a specific finding, based on the environmental documentation that an alternative is preferable. 2. On slopes greater than 60 percent timber harvesting will be limited to Regulation Class 2 single tree selection via helicopter.~~ (MSA, Exhibit N, p. 3)	
~~Harvest location~~		
~~Harvest timber during the first 10 years primarily on better stocked high site lands. Regenerate interspersed and nearby poorly stocked stands that make logical harvest units. About 20 percent of the acres harvested and regenerated will be poorly stocked stands.~~ (LRMP, p. 4-32)	~~Mix of understocked and better stocked stands will be harvested. The Forest will emphasize harvest and restocking of understocked stands to the extent feasible. In determining what activities should occur on understocked stands the full range of multiple use values shall be considered.~~ (MSA, Exhibit N, p. 3)	Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
Make logging slash and dead and down material available for firewood throughout the forest make some green material available for firewood. (LRMP p. 4-32)	Make logging slash and dead and down material available for firewood throughout the forest. Make some green material available for firewood. (MSA, Exhibit N, p. 3)	
Diversity		
~~Maintain the existing species composition for major forest types where reforestation and thinning projects occur.~~ (LRMP p. 4-32) (See standards and guidelines for Old Forest Emphasis Area and General Monument.)	In order to maintain forest diversity particularly within the mixed conifer forest type, reforestation and timber stand improvement prescriptions shall generally emulate existing species composition. Variation from this guideline will be the exception and will be discussed in an environmental document. ~~Commercial values will not be the sole justification for increasing the proportion of high value species.~~	These forests need restoration to counteract the effects of a century of fire suppression and logging. Fire suppression has caused forests to become denser in many areas, with increased dominance of shade-tolerant species.
~~Provide for an array of early and late successional stages over time in each forest ecosystem to assure that long-term viability of forest wildlife species will be maintained.~~ (LRMP p. 4-32) (See standards and guidelines for Old Forest Emphasis Area and General Monument, respectively.)	~~Provide for an array of early and late successional stage habitat over time in each ecosystem. A minimum of 5 percent of the total area of each vegetative type in forested lands will be maintained in each seral stage/habitat type combination. Allocation of the habitat type/seral stage combinations will be done on compartment basis.~~ (MSA, Exhibit N, pp. 3-4)	

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
To enhance stand heterogeneity and to maintain intact biological processes, particularly soil biota that may be affected by mechanical treatments, do not mechanically treat the remaining 25 percent of the stand area. (SNFPA ROD, Appendix A, p. A-41, Old Forest) To enhance stand heterogeneity, do not mechanically treat the remaining 25 percent of the stand area. (SNFPA ROD, Appendix A, p. A-49, General Forest)		
Design vegetation treatments to provide for edge corridor of cover and enhancement of special habitat features such as meadows for wildlife. (LRMP p. 4-32)	Design vegetation treatments to provide for edge corridors of cover and enhancement of special habitat features such as meadows for wildlife. (MSA, Exhibit N, pp. 3-4)	
Integrated pest management		
Apply the principles of integrated pest management to the control of competing vegetation, animal pests, and disease. Consider full range of management strategies and techniques before prescribing treatment designed to reduce damage from any forest pest. Strategies include indirect control (which focuses on increasing host resistance to pests) and direct control (which seeks to reduce pest populations). Techniques include biological, chemical, mechanical, manual, and prescribed fire in prescription considered in the control of pest damage. Control of competing vegetation will be within the scope of the PSW region DEIS of June 1983 entitled: vegetation management for Reforestation. (LRMP p. 4-32 and 33)	Apply the principles of integrated pest management to the control of competing vegetation, animal pests, and diseases. Consider full range of management strategies and techniques before prescribing treatment designed to reduce damage from any forest pest. Strategies include indirect control (which focuses on increasing host resistance to pests) and direct control (which seeks to reduce pest populations). Techniques include biological, chemical, mechanical, manual, and prescribed fire in prescriptions considered in the control of pest damage. Control of competing vegetation will be within the scope of regional direction based upon an approved environmental impact statement. (MSA, Exhibit N, pp. 4-5)	
True fir management		
	~~During this plan period, the Forest will test the true fir cutting and regeneration practices described in "The Development of Policy and Guidelines for the Management of True Fir Forest Cover on the Sequoia National Forest" (1983) incorporated into the Forest Plan as~~	Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
	~~appendix 2. All true fir sales will be closely monitored to determine if true fir regeneration is successful. When the plan undergoes its five-year review, the Forest will prepare written evaluation of its true fir policies based upon this monitoring. The Forest Supervisor will make a decision whether amendment of the policies, cessation of true fir logging or other action is appropriate. A similar written report, review, and management decision will be made after the additional five years. The following true fir sales are tentatively scheduled for sale between now and 1995:~~ (MSA, Exhibit N, p. 4)	
Sugar pine management		
	1. Silvicultural prescriptions are to consider means of maintaining the widest possible base of sugar pine genes. Generally this means protecting as many sugar pine trees as possible while meeting land management plan objectives ~~and being compatible with timber harvest and related activities. Current direction regarding sugar pine retention is set forth in appendix 3.~~ 2. Continue to plant a modest mix (5-10 percent) of sugar pine along with other mixed conifer species ~~even though major gene resistant stock is not now available.~~ This may mean collecting seed from non-tested trees in order to maintain a sugar pine seedbank. With resistant stock this percentage could be increased. 3. Intensify the effort to collect sample cones from candidate resistant trees. This is high priority. 4. Continue to protect trees that are known to carry resistance. Collect seed from these trees for our seedbank. (MSA, Exhibit N, p. 4)	

Alternative A—Vegetation Management, cont'd.

Table 2 Alternative A–Standards and Guidelines for Old Forest and Other Areas

LRMP as Amended	MSA	Proclamation
Old forest emphasis areas: fuel treatments		
Give priority to restoring historic fire return intervals where possible. Emphasize fire restoration in pine and mixed conifer forests. In mixed conifer forests, fire return intervals vary by aspect and topographic position, with most frequent burning on south- and west-facing aspects. (SNFPA ROD, Appendix A, p. A-40)		
Emphasize fuel treatments in stands at lower elevations with high fire hazard in the pine, mixed conifer, eastside pine, and eastside mixed conifer forest types. Emphasize fuel treatments on the upper two-thirds of south- and west-facing aspects near roads. Use mechanical treatments where fire managers determine a high potential for: (1) prescribed fire escape due to excessive fuel accumulations; (2) unacceptable smoke impacts; or (3) canopy cover and old forest structure loss due to excessive surface and ladder fuels. (SNFPA ROD, Appendix A, p. A-40)		
Design mechanical fuel treatments to remove the material necessary to achieve the following outcomes: ● Stands with less than 40 percent canopy cover: Over 75 percent of the stand area, achieve an average live crown base height of 15 feet and an average flame length of 6 feet or less if the stand was to burn under 90th percentile fire weather conditions. ● Stands with 40 to 70 percent canopy cover: Over 75 percent of the stand area, achieve an average live crown base height of 20 feet and an average flame length of 6 feet or less if the stand was to burn under 90th percentile fire weather conditions.		

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
• Stands with greater than 70 percent canopy cover: Over 75 percent of the stand area, achieve an average live crown base height of 25 feet and an average flame length of 6 feet or less if the stand was to burn under 90th percentile fire weather conditions. (SNFPA ROD, Appendix A, p. A-41)		
To enhance stand heterogeneity and to maintain intact biological processes, particularly soil biota that may be affected by mechanical treatments, do not mechanically treat the remaining 25 percent of the stand area. (SNFPA ROD, Appendix A, p. A-41)		
Where mechanical treatments are necessary, design treatments to achieve or approach the fuels outcomes described above by reducing surface and ladder fuels less than 12 inches dbh. Apply treatments to enhance stand heterogeneity. Allow incidental felling of trees between 12 and 20 inches dbh where required for operability. Retain felled trees on the ground where needed to achieve down woody material standards of 10 to 20 tons per acre in logs greater than 12 inches diameter at midpoint. (SNFPA ROD, Appendix A, p. A-41)		
Do not reduce canopy cover in dominant and co-dominant trees by more than 10 percent across a stand following mechanical treatments. (For example, if canopy cover in a stand's dominant and co-dominant trees is 80 percent, retain at least 70 percent canopy cover in dominant and co-dominant trees following mechanical treatment.) (SNFPA ROD, Appendix A, p. A-41)		
In westside forest types, where pre-treatment canopy cover in dominant and co-dominant trees is between 50 and 59 percent, design		

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
mechanical treatments to retain a minimum of 50 percent canopy cover. Do not reduce canopy cover in stands that currently have between 40 and 50 percent canopy cover in dominant and co-dominant trees, except where canopy cover reductions result from removing primarily shade tolerant trees less than 6 inches dbh. In the eastside pine forest type, retain a minimum of 30 percent canopy cover. (SNFPA ROD, Appendix A, p. A-41)		
Strategically placed area fuel treatments may be needed in old forest emphasis areas to minimize risks to human life and property, sensitive resources, or the old forest emphasis area from loss to wildfire. When treatments are necessary, prescribed fire is the first priority for achieving the fuels objectives. When prescribed fire will not achieve fuels objectives, use mechanical thinning as described in the preceding paragraphs to achieve the fuels objectives. When this treatment will not achieve the fuels objectives due to existing stand conditions, mechanical thinning of trees up to 20 inches dbh and canopy reductions of up to 20 percent (refer to mechanical treatment standards and guidelines for the threat zone) may be conducted in CWHR 4M and 4D stands to meet fuels reduction objectives. (SNFPA ROD, Appendix A, p. A-41)		
Conduct an analysis of suitable owl habitat before applying mechanical treatments that remove trees up to 20 inches dbh and reduce canopy cover up to 20 percent in old forest emphasis areas. This type of treatment may only be used when sufficient suitable owl habitat exists within 1½ miles of a California spotted owl nest site or activity center to satisfy the requirements of a home range core area, as		

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
described in the standards and guidelines for delineating California spotted owl home range core areas. This type of treatment may not be applied within 1½ miles of the nest site or activity center if the requirements for delineating a home range core area cannot be met. Document this site-specific analysis in the environmental analysis. (SNFPA ROD, Appendix A, p. A-41-42)		
Retain all snags 15 inches or greater following stand-replacing events except to address imminent hazards to human safety. Following stand-replacing events, dead trees may be removed to the extent that project analysis recommends removal to benefit landscape conditions for old forest structure and function. Conduct the project analysis to determine varying snag retention levels, considering landscape position and site conditions (such as riparian areas and ridgetops), avoiding uniformity across large areas. (SNFPA ROD, Appendix A, p. A-42)		
General forest:fuel treatments		
Design mechanical fuel treatments to removing the material necessary to achieve the following outcomes: ● Stands with less than 40 percent canopy cover: Over 75 percent of the stand area, achieve an average live crown base height of 15 feet and an average flame length of 6 feet or less if the stand was to burn under 90th percentile fire weather conditions. ● Stands with 40 to 70 percent canopy cover: Over 75 percent of the stand area, achieve an average live crown base height of 20 feet and an average flame length of 6 feet or less if the stand was to burn under		

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
90th percentile fire weather conditions. • Stands with greater than 70 percent canopy cover: Over 75 percent of the stand area, achieve an average live crown base height of 25 feet and an average flame length of 6 feet or less if the stand was to burn under 90th percentile fire weather conditions. (SNFPA ROD, Appendix A, p. A-49)		
To enhance stand heterogeneity, do not mechanically treat the remaining 25 percent of the stand area. (SNFPA ROD, Appendix A, p. A-49)		
Design mechanical treatments to achieve the fuels outcomes described above through understory thinning to remove surface and ladder fuels up to 20 inches dbh. Focus treatments on removing suppressed and intermediate conifer trees. Apply treatments to enhance stand heterogeneity. When conducting treatments in dense stands with uniform tree size and spacing, introduce heterogeneity into such stands by creating small (typically less than one acre), irregularly-spaced openings. Canopy cover reductions may be needed to meet fuels objectives, but do not exceed a 20 percent reduction in dominant and co-dominant trees. (For example, a stand's canopy cover may be reduced from a pre-treatment level of 70 percent down to 50 percent to meet fuels objectives.) (SNFPA ROD, Appendix A, p. A-49)		
In westside forest types, where pre-treatment canopy cover is between 50 and 59 percent, design mechanical treatments to retain a minimum of 50 percent canopy cover in dominant and co-dominant trees. In stands that currently have between 40 and 50 percent canopy		

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
cover, do not reduce canopy cover of the dominant and co-dominant trees during fuels treatments, except where canopy cover reductions result from removing primarily shade-tolerant trees less than 6 inches dbh. In the eastside pine forest type, retain a minimum of 30 percent canopy cover. SNFPA ROD, Appendix A, p. A-49-50)		
For prescribed fire treatments, use multiple entries as needed to achieve fuels management objectives, up to two burns per decade and four burns over 20 years. (SNFPA ROD, Appendix A, p. A-50)		

Table 3 Alternative A–Standards and Guidelines for Reforestation and Plantation Management

LRMP as Amended	MSA	Proclamation
Vegetation and fuels treatments in plantations		
In plantations (timber strata classifications 0x, 1x, 2x, and 3x), apply the necessary silvicultural and fuels reduction treatments to: (1) accelerate the development of old forest characteristics, (2) increase stand heterogeneity, (3) promote hardwoods, and (4) reduce risk of loss to wildland fire. Use mechanical fuels treatments to remove the material necessary to achieve the following outcomes if the treated plantation was to burn under 90th percentile fire weather conditions: (1) wildland fire would burn with average flame lengths of 6 feet or less, (2) the rate of fire spread would be less than 50 percent of the pre-treatment rate of spread, and (3) fire line production rates would be doubled. Achieve these outcomes by reducing surface and ladder fuels and adjacent crown fuels. Treatments should be effective for more than 5 years. (SNFPA ROD, Appendix A, p. A-25)		

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
Regeneration methods		
Plant all regeneration areas requiring reforestation except where natural seeding is prescribed. Regeneration by natural seeding will be applied primarily in the true fir type. (LRMP p. 4-32)	Plant all regeneration areas requiring reforestation except where natural seeding is prescribed regeneration by natural seeding will be applied primarily in the true fir type and in areas where uneven-aged silvicultural practices are prescribed. (MSA, Exhibit N, p. 3)	Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
Save viable existing reproduction where feasible and incorporate into silvicultural prescriptions for new stands. (LRMP p. 4-32)	Save viable existing reproduction where feasible and incorporate into silvicultural prescriptions for new stands. (MSA, Exhibit N, p. 3)	
Utilize current state of the art regeneration techniques including controlling pests such as gophers and controlling competing vegetation. (LRMP p. 4-32)	Utilize current state-of-the-art regeneration techniques including controlling pests, such as gophers, and controlling competing vegetation. (MSA, Exhibit N, p. 3)	
~~Meet draft regional soil standards for long-term site productivity.~~ (LRMP p. 4-32) NOTE: Regional soil quality standards and guidelines are in place.	~~To assure long-term site productivity, meet regional soil standards. Existing draft regional standards shall be followed until final standards are adopted.~~ (MSA, Exhibit N, p. 3)	
Suitable California spotted owl habitat		
Prior to undertaking vegetation treatments in suitable California spotted owl habitat with unknown occupancy, conduct surveys in accordance with Pacific Southwest Region survey protocol. Designate California spotted owl protected activity centers (PACs) where appropriate based on survey results. (SNFPA ROD, Appendix A, p. A-29)		
Suitable northern goshawk nesting habitat		
Prior to undertaking vegetation treatments in suitable northern goshawk nesting habitat that is not within an existing California spotted owl or northern goshawk PAC, conduct surveys using Pacific Southwest Region survey protocols. Suitable northern goshawk nesting habitat is defined as follows: (1) in the eastside pine forest type, suitable nesting habitat is stands with an average tree size of 11		

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
inches dbh or greater and at least 20 percent canopy cover; and (2) in other forest types, suitable nesting habitat is stands with an average tree size of 11 inches dbh or greater and at least 40 percent canopy cover. Delineate PACs surrounding all known and newly discovered northern goshawk breeding territories detected on National Forest System lands. (Refer to the section on northern goshawk PACs for detailed standards and guidelines.) (SNFPA ROD, Appendix A, p. A-29)		

Table 4 Alternative A–Standards and Guidelines for Hardwood (Oak+) Management

LRMP as Amended	MSA	Proclamation
Hardwood (oak) management		
AMENDED by 2001 SNFPA: ~~Maintain mast-producing oaks on lands tentatively suitable for timber management in numbers proportional to the current inventory. Where hardwood and conifer coexist the goal is to increase conifers subject to leaving at least a minimum of 20 square feet per acre basal Area of oak hardwood dispersed over each timber compartment.~~ (LRMP p. 4-30) **Hardwood Management** (2001 SNFPA ROD, Appendix A, p. A-27) Where possible, create openings around existing California black oak and canyon live oak to stimulate natural regeneration. Retain the mix of mast-producing species where they exist within a stand. Manage hardwood ecosystems for a diversity of hardwood tree size classes within a stand such that seedlings, saplings, and pole-sized trees are sufficiently abundant to replace large trees that die.	~~In mixed conifer-hardwood stands, leave at least 20 square feet per acre basal area of oaks where this currently exists.~~ ~~Where it currently exists in pure hardwood stands maintain a minimum average of 50 square feet per acre basal area. Leave heavy mast-producing trees in any harvest of oaks.~~ ~~Where it currently exists, leave a minimum of 30 square feet per acre basal area of oaks in mixed conifer hardwood standsidentified as key deer areas.~~ ~~Live oakstands willnot be subject to vegetative manipulations other than prescribed burning, thinning for vigor, or for wildlife and watershed habitat improvement.~~ ~~In mixed hardwood-conifer or hardwood stands, favor retention of oak trees exhibiting active use ascavity nesting sites or graineries.~~ (MSA pp. 30-31)	These forests need restoration to counteract the effects of a century of fire suppression and logging. Fire suppression has caused forests to become denser in many areas, with increased dominance of shade-tolerant species.

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
Retain all blue oak and valley oak trees except: (1) stand restoration strategies call for tree removal; (2) trees are lost to fire; or (3) where tree removal is needed for public health and safety. When planning prescribed fire or mechanical treatments in hardwood ecosystems: (1) consider the risk of noxious weed spread and (2) minimize impacts to hardwood ecosystem structure and biodiversity. public health and safety. During or prior to landscape analysis, spatially determine distributions of existing and potential natural hardwood ecosystems (Forest Service Handbook (FSH) 2090.11). Assume pre-1850 disturbance levels for potential natural community distribution. Work with province ecologists or other qualified personnel to map and/or model hardwood ecosystems at a landscape scale (approximately 30,000 to 50,000 acres). Include the following steps in the analysis: (1) compare distributions of potential natural hardwood ecosystems with existing hardwood ecosystems; (2) identify locations where existing hardwood ecosystems are outside the natural range of variability for potential natural hardwood ecosystem distribution; and (3) identify hardwood restoration and enhancement projects.		
(Oak) Management emphasis 1—general dispersed recreation		
Enhance general dispersed recreation through stand management. (LRMP p. 4-44)		
Vegetation and fuels treatments in shrubfields		
Design mechanical treatments in brush and shrub patches to remove the material necessary to achieve the following outcomes from wildland fire under 90th percentile		

Alternative A—Vegetation Management, cont'd.

LRMP as Amended	MSA	Proclamation
fire weather conditions: (1) wildland fires would burn with an average flame length of 8 feet or less; (2) the fire's rate of spread would be less than 50 percent of the pre-treatment rate of spread; and (3) fire line production rates would be doubled. Treatments should be effective for more than 5 years. (SNFPA ROD, Appendix A, p. A-25)		

Sequoia Grove Management

Table 5 Alternative A–Standards and Guidelines for Sequoia Grove Management

LRMP as Amended	MSA	Proclamation
Giant sequoia		
~~Manage giant sequoia groves with the objectives of perpetuating the species, preserving the old growth specimen trees and producing sustained yield of sawtimber~~ (LRMP p. 4-33)	Giant Sequoias: delete this whole section. (MSA, Exhibit N, p. 5)	
	(1) Within this Plan period, it is desirable that the Sequoia National Forest shall inventory all giant sequoia (3 feet or larger dbh) in each Grove by size and approximate location in order to provide a suitable data base for future protection of the sequoias; the Sequoia National Forest shall request no less than $40,000 per year in its annual budget request starting FY1992 and extending through the end of the Plan period for giant sequoia inventory purposes, or until the inventory is completed. Priority for inventory of Giant Sequoia Groves will be pursuant to subparagraph (2), below (MSA p. 9).	
	(2) Within this Plan period, the Sequoia National Forest shall begin to inventory and evaluate each grove for its fuel load build-up. based on this inventory and evaluation, groves, or parts of groves, with risks of catastrophic fire and/or exclusion of new giant	

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	sequoia regeneration because of unnatural fuel load build-up will be identified and prioritized for fuel load reduction treatment. Pursuant to this prioritization, the Forest Service shall begin addressing the grove fuel load build-up problems during the planning period, with public participation and planning in accordance with NEPA] (MSA p. 9).	
	(3) Except as set forth in section ILB.2.a.(l), there shall be no new road-building, logging or mechanized/ motorized entry (except for entry on existing roads) within the final administrative boundary of any grove during the period of time in which the Sequoia National Forest activities are covered by the 1988 Land and Resource Management Plan. For purposes of this Agreement, prohibited logging shall mean any logging activity except logging conducted for the limited and specific purpose of reducing the fuel load *in* the groves pursuant to a grove specific fuel load reduction plan and grove-specific EIS. The only salvage logging permitted in the Groves will be that logging permitted and described in the previous sentence. It is agreed that the methods to be used to remove specific trees from the groves, as part of an adopted fuel reduction plan, shall be the most environmentally sensitive available. The objective of fuel load reduction plans shall be to preserve, protect, restore and regenerate the giant sequoia groves, without unnecessary damage to any old-growth trees *in* the Grove. Any logging component of a fuel reduction program in a grove shall protect the old-growth pine, fir, incense cedar and black oak components of the stand. Any tree identified for removal under the paragraph shall be so identified in	

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	the field in consultation with a forester from either the Save-the-Redwoods League ("League") or the Sierra Club ("Club"). (MSA pp. 10-11)	
~~Complete forest-wide giant sequoia management implementation plan which makes the final assignment of management emphasis to each grove. The final assignment of management emphasis is expected to fall within the following ranges shown on table 4.3 of the LRMP:~~ ~~Preservation (3900 acres)~~ ~~Non-intensive (9300 acres)~~ ~~Intensive (0) acres)~~ ~~Except for emergency rehabilitation due to catastrophic events do not plan any new management activities that will affect giant sequoia trees until the forest-wide management implementation plan is completed.~~ (LRMP p. 4-33)	Giant Sequoias: delete this whole section. (MSA, Exhibit N, p. 5)	The Secretary of Agriculture shall prepare, within 3 years of this date, a management plan for this Monument, and shall promulgate such regulations for its management as deemed appropriate.
	d. Complementary management in grove influence zones and outside of groves: (1) Within the grove influence zone, only regulation class II, single tree, small group uneven-aged management silvicultural prescriptions will be permitted both before and after final administrative grove influence zone boundaries are identified; provided, however, that If a more protective management designation also applies to the area, or portions of the area (such as streamside management zones, SOHAs, etc.), the more protective designation shall govern what, If any, logging activity is allowed in the grove influence zone. (MSA p. 25)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	(2) In all situations where logging or road construction is planned outside of, but upslope of a grove, a special written notice shall be sent to all appellants during initial	

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	development of project alternatives. This notice shall explain fully the action proposed and shall include a topographical map which specifically (1) locates the proposed cutting unit or road to be built, (2) locates the grove boundary, (3) predicts the distance between the two, and (4) specifies a date and time, no sooner than 30 days, unless otherwise agreed upon, for the interested parties to accompany the Forest Service into the field to review the plan on the ground with the objective to resolve differences prior to the preparation of an EA or EIS. The decision document for any such activity shall include a specific finding that the grove will not be harmed. (MSA p. 25)	
~~Recognize the following grove boundaries pending development of the Forest-wide management grove implementation plan:~~ 1. ~~Boundaries that have been mapped.~~ 2. ~~Where no mapping has been done, the type lines from the LMP data base strata maps will be used.~~ (LRMP p. 4-33)	NOTE: boundaries all finalized under Bush proclamation. **C. Grove and grove influence zone boundary identification procedures:** (1) The Sierra Club, the Save-the-Redwoods League, the timber Industry ("industry") and the Forest Service shall each designate one representative to serve on the Grove Boundary Team. The team shall begin to identify final administrative grove and grove influence zone boundaries prior to September 15, 1990. The team shall follow the standards and guidelines outlined in subparagraph 2 below in determining final administrative grove and grove influence zone boundary lines. The team shall recommend final administrative grove and grove influence zone boundaries to the forest supervisor by December 31, 1991, subject to paragraph II.B.2.c.(4). Copies of the recommendations shall be sent to all parties, who shall have 45 days from mailing to submit comments	

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	for the forest supervisor's consideration. (MSA p. 11)	
	NOTE: boundaries all finalized in 1998. **Standards and guidelines for grove and grove influence zone boundary identification:** (a) There will be two zones created adjacent to and external to the hypothetical perimeter line of the outer-most known giant sequoia trees in each grove. The first zone will be included within the final administrative grove boundary. The second zone shall be called a grove influence zone. (MSA p. 12)	
	(b) Though grove identification is a matter of interpretation, and some adjacent groves shall be managed as If they were a single large grove (as later described in this Agreement),the Rundel Grove identifications in the Forest Plan are used in this Agreement by name as the basis for grove and grove influence zone boundary identification. (MSA p. 12)	
	(c) Sequoia grove boundaries have not yet been precisely defined. Giant sequoias naturally occur in "scattered" locations outside of, or on the periphery of, aggregations of giant sequoias consensually recognized as sequoia "groves." (MSA p. 12)	
	(d) The final administrative grove boundaries shall be identified to include both (i) the area within a hypothetical perimeter line around the outermost giant sequoia trees in the grove, and (ii) a buffer area (which may differ in size for different groves, as later described) beyond the hypothetical perimeter line which shall be included in the final administrative boundary of a Grove. (MSA p. 13)	
	(e) In determining the hypothetical perimeter line around the outermost	

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	giant sequoia trees in a grove (which becomes the basis for identifying the interim protection zone and the administrative boundaries of the grove and grove influence zone), the following guidelines shall apply: i) Any naturally occurring giant sequoia (1 foot or larger dbh) which is located within 500 feet of at least 3 other giant sequoias (each 1 foot or larger dbh), shall always be included within the hypothetical perimeter line; provided, however, that the Grove Boundary Team may reasonably adjust the perimeter line for a specific grove so long as there is a rational basis for the adjustment (such as topographic features) and all participating team members agree to the adjustment. (MSA p. 13)	
	(e) In determining the hypothetical perimeter line …, the following guidelines shall apply: ii) Notwithstanding subsection (i) above, all giant sequoias consensually recognized as being included in a grove identified in the Rundel Grove list used in the Forest Plan shall always be included within the hypothetical perimeter line. In other words, the guidelines for identifying the hypothetical perimeter line shall not be used to fragment the existing groves as identified by Rundel. (MSA p.13)	
	(e) In determining the hypothetical perimeter line …, the following guidelines shall apply: iii) Where, as described later in this Agreement, several adjacent groves are to be managed as if they were one large grove, the hypothetical perimeter line, as defined, shall be a single line around the outermost giant sequoia trees in the complex of groves, taken as a whole. (MSA p. 14)	

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	(f) Boundaries shall also be Identified for grove influence zones (which may differ in size for different groves, as later described), which shall be contiguous to each grove. (See Section B.2.d. regarding management of grove influence zones.) (MSA p. 14)	
	(g) The parties agree that the grove and grove influence zone boundary guidelines are minimum protection criteria. The parties also agree that management protection such as SOHAs, roadless area management, condor nesting sites, etc., may provide for protection of areas adjacent to giant sequoia groves which exceed the minimum protection described below. (MSA p. 15)	
	(h) Further, the parties also agree that the types of management protection such as those set forth in (g) above may also minimize or eliminate issues concerning precise grove and grove influence zone administrative boundaries for many groves, as well the presence of adjacent national park, state, Indian, or private lands. (MSA p. 15)	
	(i) Topographical features such as ridges may take precedence over field distance measurements m finalizing boundaries of a grove and/or grove influence zone where such features logically and physically separate giant sequoias from the general forest. However, man-made impacts such as existing roads shall not diminish the size of the grove and/or grove influence zones, unless agreed upon pursuant to subsection (k) of this section. (MSA p. 15)	
	j) **Specific grove,grove influence zone, and isolated sequoia tree standards and guidelines:** i) Black Mountain Grove: (a) The narrow corridor of general forest between the Black Mountain	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	Roadless Area and the Black Mountain Grove in sections 1 and 12 will be a no logging, restricted mechanical entry area. The extension of road 21S12, beyond its intersection with road 21S25 in section 1, shall be closed to the public. (b) The balance of the Black Mountain Grove shall receive a 500-foot no logging, restricted mechanical entry zone outside of the hypothetical perimeter around the outermost giant sequoias in the grove within its final grove boundary line and an added 500-foot grove influence zone. (MSA p. 15)	only if clearly needed for ecological restoration and maintenance or public safety.
	j) **Specific grove:** ii) Beknap/ McIntvre/Wheel Meadow Grove Complex: This will be treated as one large grove in drawing the hypothetical perimeter line of outermost giant sequoias in the Grove. The Grove Boundary Team may consider a no logging, restricted mechanical entry zone that would extend north and east to Highway 190. The other boundaries of the grove shall include a 500-foot no logging, restricted mechanical entry zone outside of the hypothetical perimeter line of outermost giant sequoias of the grove within the final grove boundary line and an added 500 foot grove influence zone. (MSA pp. 16-17)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	j) **Specific grove:** iii) The greater Evans Grove Complex: The following groves shall be integrated into this complex and managed as one large grove in drawing the hypothetical perimeter line of outermost giant sequoias in the grove: Lockwood Grove, Evans Grove, Kennedy Grove, Burton Grove, Little Boulder Grove, and Boulder Grove. There shall be a 500-foot no logging, no mechanical entry zone outside of the hypothetical perimeter line of the outermost giant sequoias in the	No portion of the monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	Grove within the final grove boundary line and an added 500-foot grove influence zone. (MSA p.17)	
	j) **Specific grove:** iv) Freeman Creek Grove and Watershed: (a) There shall be no logging and no motorized vehicle use by the public anywhere in the Freeman Creek Grove Management Area as shown on the map, Exhibit E. The Sequoia National Forest shall manage this Area as a Botanic Area. (b) All land areas outside of the Botanic Area but within the Freeman Creek watershed, west of Lloyd Meadow Road, as designated on the map, Exhibit F, shall be managed by the Regulation Class 11, single tree or small group selection uneven-aged management prescription. There shall be no green timber sales scheduled in the watershed west of the Botanic Area in this planning period. Existing plantations may be managed; provided, however, that no management prescription outside and upslope of Giant Sequoias shall adversely impact the hydrology of the Sequoias. (c) The Freeman Creek Trail from North Road to the Lloyd Meadow Road shall be designated as sensitivity level 1. (MSA p. 17-18)	No portion of the monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	j) **Specific grove:** v) Indian Basin Grove: (a) There will be no logging except for safety reasons m and near the Princess Campground area south and east of Highway 180, and (b) a 500-foot no logging, restricted mechanical entry zone outside of the hypothetical perimeter line of the outermost giant sequoias in the grove within the grove boundary plus an added 500 foot grove influence zone. (MSA p. 18)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	j) **Specific grove:** vi) The following groves shall receive a 500-foot no logging, restricted mechanical entry zone outside of the hypothetical	No portion of the Monument shall be considered to be suited for timber production.

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	perimeter line of the outermost giant sequoias in the grove within the grove boundary line plus an added 500 foot grove influence zone: Bearskin Grove, Big Stump Grove, Deer Creek Grove, Grant Grove, Landslide Grove, Long Meadow Grove, Packsaddle Grove, Peyrone Grove, Red Hill Grove, Redwood Mountain Grove, Starvation Creek Grove and Tenmile Grove. (MSA pp. 18-19) NOTE: Delete reference to Tenmile Grove, as it does not exist.	Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	j) **Specific grove:** vi) The following groves shall receive a 300-foot no logging, restricted mechanical entry zone outside of the hypothetical perimeter line of the outermost giant sequoias in the grove within the grove boundary line plus an added 300-foot grove influence zone: Powderhorn Grove, Alder Creek Grove, Abbott Creek Grove, Cherry Gap Grove,Mountain Home Grove and Cunningham Grove. (MSA p.19)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	j) **Specific grove:** vii) The six hundred (600) acres of Converse Basin Grove recommended for preservation (see section B.2.e.(2) below) shall receive a 500-foot no logging, restricted mechanical entry zone outside of the preservation area. (MSA p.19)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	ix) The following groves, and their adjacent areas, are protected because of other designations and do not require precise boundary determinations for sequoia grove protection purposes: Agnew Grove (Wilderness Area), Burro Creek Grove (to be proposed as Wilderness), Deer Meadow Grove (protected portion of Agnew Roadless Area), Dillonwood Grove (to be proposed as Wilderness), Maggie Mountain Grove	

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	(Wilderness), Middle Tule Grove (part Wilderness and part to be proposed as Wilderness), and Silver Creek Grove (to be proposed as Wilderness). (MSA p. 20)	
	(j continued): Specific grove, grove influence zone, and isolated sequoia tree standards and guidelines: x) Naturally occurring isolated giant sequoia trees (3 feet or larger dbh) located inside or outside of the grove influence zones shall be protected by a restricted mechanical entry within an area equal to at least 2/3 the height of the tree, provided; however, that only single tree selection logging is permitted in this area, so long as the giant sequoia tree is protected from unnecessary logging damage. (MSA p. 20)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	(j continued): Specific grove, grove influence zone, and isolated sequoia tree: xi) Naturally occurring giant sequoia trees (under 3 feet dbh) located inside of the Grove Influence Zone shall be protected from all logging operations, including specifically protecting the root system. Every reasonable effort shall be made to protect naturally occurring giant sequoia trees (under 3 feet dbh) located outside of the grove influence zone from road construction, cable logging, and other logging activities. No additional buffer will be required for these trees, though the Forest Service shall make an effort to preserve them within wildlife clumps, within other small areas not logged under the regeneration mosaic silvicultural prescription, or within areas reserved to meet the seral stage diversity requirements. (MSA p. 21)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	(j continued): Specific grove, grove influence zone, and isolated sequoia tree: xii) Any detached naturally occurring group	No portion of the Monument shall be considered to be suited for timber production.

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	(10 or more giant sequoia trees with at least 4 trees with a 3 foot or larger dbh) located outside the grove influence zone, and not identified by Rundel as included in an existing grove, shall be given the designation of "grove" and given a 300-foot no logging, restricted mechanical entry zone within the grove boundary and a 300 foot grove influence zone; provided, however, that the Grove Boundary Team agrees with this designation. If the Grove Boundary Team cannot agree, the unresolved issue shall be submitted to the expert panel for its determination and recommendation to the forest supervisor. (MSA p.21)	Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	(j continued): Specific grove, grove influence zone, andisolated sequoia tree: xiii) If previously unknown giant sequoia trees of any size and number outside of the interim buffer or final grove boundary are discovered, the applicable grove boundary and/or grove influence zone shall be modified in accordance with the guidelines set forth in this section. (MSA p. 22)	
	(k) The Grove Boundary Team may reasonably adjust final boundaries of groves and/or grove influence zones, subject to final approval by the forest supervisor, either to expand or contract these zones, for a specific grove, so long as there is a rational basis for the adjustment (such as topographic features) and all participating team members agree to the adjustment. (MSA p. 22)	
	(l) ~~With the exception of Converse Basin,~~ these grove and grove influence zone boundary line standards and guidelines are solely for the purpose of protecting the Groves and the adjacent areas, and are not intended as a "release" or a management prescription for other	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	areas of the Forest, which shall be managed or protected as otherwise provided in the forest plan and in this Agreement. (MSA p. 22)	restoration and maintenance or public safety.
	(3) If any logging is planned to occur within 1,000 feet of any interim or final Grove Boundary, a special written notice shall be sent to the appellants. This notice shall include a topographic map which specifically (1) locates the boundary of the proposed cutting units (2) locates the Forest Service interim or final grove boundary, (3) predicts distance between the two, and (4) specifies a date and time, no sooner than 30 days, unless otherwise agreed upon, for the interested parties to accompany the Forest Service into the field to review the plan on the ground with the objective to resolve differences prior to the preparation of an EA or EIS. (MSA p. 23)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for the personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
	NOTE: Agreement was reached on all final boundaries. (4) If Grove Boundary Team members fail to reach unanimous agreement on permanent grove and grove influence zone boundaries for all groves prior to December 31, 1991, or within a reasonable time thereafter, if a specific extended time period is agreed upon in writing by all team members, an expert panel of three people shall be formed. The Sierra Club and Save-the-Redwoods League shall appoint one member, the Forest Service shall appoint one member (acceptable to the timber industry), and the two appointees shall choose a third panel member. All should have a background m giant sequoia protection. The panel will address itself to each grove as to which the team failed to reach agreement. the panel will review the maps, the differing opinions of the team members, and will go into the	

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
	field to review the matter on the ground. The panel will make a formal, public written recommendation to the forest supervisor for the boundary line of each disputed grove. the forest supervisor shall, upon receiving the final recommendations of the Grove Boundary Team and the expert panel (if one is convened), issue a Plan amendment establishing the boundaries of groves and grove influence zones. (MSA pp. 23-24)	
	(5) ~~Except as otherwise provided in this agreement (see section B.2.e.(2) below, re: Converse Basin),~~ each grove, with final administrative grove boundaries determined as described herein, shall remain outside the suitable land base. (MSA p. 24)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for the personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
Encourage giant sequoia reproduction. Thinning will be done to enhance the health and vigor of the young trees. (LRMP p. 4-33)	**f. Regeneration of cut-over giant sequoia groves:** (1)The objectives of regenerating cutover giant sequoia groves will be to restore these areas, as nearly as possible, to the former natural forest condition. ((2) The forest shall implement the regeneration plan required by the Stipulation for Entry of Judgment dated 12/27/89, in Sierra Club v. US. Forest Service, Case No.CVF-87-263 EDP. (MSA p. 27)	
	h. Research projects may be permitted if consistent with this Agreement. Research projects are subject to NEPA. (MSA p. 28)	The Monument provides exemplary opportunities for biologist, geologist, paleontologists, archaeologists, and historians to study these objects. These giant sequoia groves and the surrounding forest provide an excellent opportunity to understand the consequences of different approaches to forest restoration.
~~Consider giant sequoia for planting outside of recognized groves along with other mixed conifers where site conditions favor its survival and growth.~~ (LRMP p. 4-33)	Giant sequoias: delete this whole section. (MSA, Exhibit N, p. 5)	

Alternative A—Sequoia Groves, cont'd.

LRMP as Amended	MSA	Proclamation
Use stand management prescriptions that ensure the maintenance and replacement of specimen trees so that their total number does not decrease through time. (LRMP p. 4-33)	Giant sequoias: delete this whole section. (MSA, Exhibit N, p. 5)	
Recommend research natural area at Moses mountain for the further study of giant sequoia in natural setting. (LRMP p. 4-33) NOTE: Moses Mountain Research Natural Area established in 1994.	Giant Sequoias: delete this whole section. (MSA, Exhibit N, p. 5)	
Old Forest and General Forest replaced management direction for timber production (SNFPA ROD, Appendix A, p. A-49)	**e. Special Area Designation** (1) The Sequoia National Forest shall manage the Freeman Creek Grove Management Area as a Botanic Area. (See further discussion in section B.2.c.(2)(j)(iv) above.) (MSA p. 26)	No portion of the Monument shall be considered to be suited for timber production. Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.

Fire and Fuels

Table 6 Alternative A–Standards and Guidelines for Wildland Urban Interface Fuels Treatments

LRMP as Amended	MSA	Proclamation
Fuel treatments in wildland urban intermix (wui) areas: defense zone		
Design mechanical fuel treatments to remove the material necessary to achieve the following outcomes (2001 SNFPA ROD, Appendix A, p. A-46): • On over 90 percent of the stand area achieve an average flame length of 4 feet or less if the stand was to burn under 90th percentile fire weather conditions. • Stands with less than 40 percent canopy cover, achieve an average live crown base height of 15 feet; • Stands with 40 to 70 percent canopy cover, achieve an average live crown base height of 20 feet;		

Alternative A—Fire and Fuels, cont'd.

LRMP as Amended	MSA	Proclamation
• Stands with greater than 70 percent canopy cover, achieve an average live crown base height of 25 feet.		
To enhance stand heterogeneity, do not mechanically treat the remaining 10 percent of the stand area (2001 SNFPA ROD, Appendix A, p. A-46)		
Achieve the fuels outcomes described above through thinning from below to remove surface and ladder fuels. (2001 SNFPA ROD, Appendix A, p. A-46).		
Fuel treatments in wildland urban intermix (wui) areas: threat zone		
Design mechanical fuel treatments to remove the material necessary to achieve the following outcomes (2001 SNFPA ROD, Appendix A, pp. A-47-48.): • On over 85 percent of the stand area achieve an average flame length of 6 feet or less if the stand was to burn under 90th percentile fire weather conditions. • Stands with less than 40 percent canopy cover, achieve an average live crown base height of 15 feet; • Stands with 40 to 70 percent canopy cover, achieve an average live crown base height of 20 feet; • Stands with greater than 70 percent canopy cover, achieve an average live crown base height of 25 feet.		
To enhance stand heterogeneity, do not mechanically treat the remaining 15 percent of the stand area. (2001 SNFPA ROD, Appendix A, p. A-47)		
Design mechanical treatments to achieve the fuels outcomes described above through understory thinning to remove surface and ladder fuels up to 20 inches dbh.		

Alternative A—Fire and Fuels, cont'd.

LRMP as Amended	MSA	Proclamation
Focus treatments on removing suppressed and intermediate trees. Apply treatments to enhance stand heterogeneity. When conducting treatments in dense stands with uniform tree size and spacing, introduce heterogeneity into such stands by creating small (typically less than 1 acre), irregularly-spaced openings. Canopy cover reductions may be needed to meet fuels objectives, but do not exceed a 20 percent reduction in the dominant and co-dominant trees. (For example, a stand's canopy cover may be reduced from a pre-treatment level of 70 percent down to 50 percent to meet fuels objectives.) (2001 SNFPA ROD, Appendix A, pp. A-47-48.)		
In westside forest types, where pre-treatment canopy cover is between 50 and 59 percent, design mechanical treatments to retain a minimum of 50 percent canopy cover in dominant and co-dominant trees. In stands that currently have between 40 and 50 percent canopy cover, do not reduce canopy cover except where canopy cover reductions result from removing primarily shade-tolerant trees less than 6 inches dbh. (2001 SNFPA ROD, Appendix A, p. A-48)		
For prescribed fire treatments, use multiple entries as needed to achieve fuels management objectives, up to two burns per decade and four burns over 20 years. (2001 SNFPA ROD, Appendix A, p. A-48)		

General Fuels/Fire Management

Table 7 Alternative A–Standards and Guidelintes for General Fire/Fuels Management

LRMP as Amended	MSA	Proclamation
Fuel treatments in general forest		
Design mechanical fuel treatments to removing the material necessary to achieve the following outcomes (2001 SNFPA ROD, Appendix A, p. A-49): ● On over 75 percent of the stand area achieve an average flame length of 6 feet or less if the stand was to burn under 90th percentile fire weather conditions. ● Stands with less than 40 percent canopy cover, achieve an average live crown base height of 15 feet; ● Stands with 40 to 70 percent canopy cover, achieve an average live crown base height of 20 feet; ● Stands with greater than 70 percent canopy cover, achieve an average live crown base height of 25 feet.		
To enhance stand heterogeneity, do not mechanically treat the remaining 25 percent of the stand area. (2001 SNFPA ROD, Appendix A, p. A-49)		
Design mechanical treatments to achieve the fuels outcomes described above through understory thinning to remove surface and ladder fuels up to 20 inches dbh. Focus treatments on removing suppressed and intermediate conifer trees. (2001 SNFPA ROD, Appendix A, p. A-49)		
Fuel treatment and protection planning–reforestation plans		
Incorporate fuel treatment and protection planning into reforestation plans. Ensure that tree stocking levels and silvicultural goals are consistent with fuel reduction objectives in plantations located in high and moderate fire		

Alternative A—General Fuels/Fire Management, cont'd.

LRMP as Amended	MSA	Proclamation
hazard and risk areas. (2001 SNFPA ROD, Appendix A, p. A-25.)		
Structural change to treatment acres by mechanical methods		
The structural change to treatment acres by mechanical methods is limited to one per decade. Treatments should be designed to be effective for at least 10 years. When subsequent entries within 10 years are needed to reduce surface fuels, prescribed fire is the preferred method. When burning opportunities are limited, mechanical treatments such as mastication and piling, are allowed. (2001 SNFPA ROD, Appendix A, p. A-25)		
Fuel treatments in forested stands of large trees with moderate to dense canopy cover		
Design mechanical fuel treatments to remove the material necessary to achieve the following outcomes (2001 SNFPA ROD, Appendix A, p. A-26): ● On over 75 percent of the stand area achieve an average flame length of 6 feet or less if the stand was to burn under 90th percentile fire weather conditions. ● Stands with less than 40 percent canopy cover , achieve an average live crown base height of 15 feet; ● Stands with 40 to 70 percent canopy cover, achieve an average live crown base height of 20 feet; ● Stands with greater than 70 percent canopy cover, achieve an average live crown base height of 25 feet.		
To enhance stand heterogeneity and to maintain intact biological processes, particularly soil biota that may be affected by mechanical treatments, do not mechanically treat the remaining 25 percent of the stand area. (2001 SNFPA ROD, Appendix A, p. A-26)		

Alternative A—General Fuels/Fire Management, cont'd.

LRMP as Amended	MSA	Proclamation
Design mechanical treatments to achieve or approach the fuels outcomes described above by removing surface and ladder fuels less than 12 inches dbh. Allow incidental felling of trees between 12 and 20 inches dbh where required for operability. Retain felled trees on the ground where needed to achieve down woody material standards of 10 to 20 tons per acre in logs greater than 12 inches diameter at midpoint. (2001 SNFPA ROD, Appendix A, p. A-26)		
Do not reduce canopy cover in dominant and co-dominant trees by more than 10 percent across a stand following mechanical treatments. (For example, if canopy cover in a stand's dominant and co-dominant trees is 80 percent, retain at least 70 percent canopy cover in dominant and co-dominant trees following mechanical treatment.) (2001 SNFPA ROD, Appendix A, p. A-26)		
In westside forest types, where pre-treatment canopy cover is between 50 and 59 percent, design mechanical treatments to retain a minimum of 50 percent canopy cover in dominant and co-dominant trees. Do not reduce canopy cover in stands that currently have between 40 and 50 percent canopy cover, except where canopy cover reductions result from removing shade-tolerant trees less than 6 inches dbh. In the eastside pine forest type, retain a minimum of 30 percent canopy cover. (2001 SNFPA ROD, Appendix A, p. A-26)		
For prescribed fire treatments, use multiple entries as needed to achieve fuels management objectives, up to two burns per decade and four burns over 20 years. (2001 SNFPA ROD, Appendix A, p. A-26)		

Alternative A—General Fuels/Fire Management, cont'd.

LRMP as Amended	MSA	Proclamation
Natural Ignitions		
Lightning-caused fires can be used to reduce fuel loads or to provide other resource benefits, such as conserving populations of fire-dependent species. (2001 SNFPA ROD, Appendix A. p. A-12)		
In wilderness limit the use of unplanned natural ignition prescribed fire to meeting planned objectives when fuel loading and natural barriers will limit final fire perimeter to planned boundaries under the most severe weather conditions. (LRMP p. 4-39)		
Strategically placed fuel treatments		
Strategically place fuel treatments across the landscape to achieve fuel conditions that reduce the size and severity of wildland fires. Maintain 30 to 40 percent of each landscape (outside the defense zone of the urban wildland intermix zone) in a condition that meets fuel management objectives. (2001 SNFPA ROD, Appendix A, p. A-25)		
Fire management		
Meet at least once annually with cooperating agencies (Kern County, CDF, Sequoia and Kings Canyon National Parks, BLM-Bakersfield District, Pine Flat Lake Corps of Engineers) to coordinate prescribed burning plans for projects located on adjacent lands and to coordinate fire protection activities. (LRMP p. 4-38)		
Vegetation and fuels treatments in shrubfields		
Design mechanical treatments in brush and shrub patches to remove the material necessary to achieve the following outcomes from wildland fire under 90th percentile fire weather conditions: (1) wildland fires would burn with an average flame length of 8 feet or less; (2) the fire's rate of spread would be less than 50 percent of the pre-treatment rate of spread; and		

Alternative A—General Fuels/Fire Management, cont'd.

LRMP as Amended	MSA	Proclamation
(3) fire line production rates would be doubled. Treatments should be effective for more than 5 years. (SNFPA ROD, Appendix A, p. A-25)		
Fuel reduction treatments		
Locate fuel treatments to interrupt wildland fire spread and reduce fire severity. Typically locate treatment areas on the upper two-thirds of the slope, on south and west aspects, in mid- and lower elevation vegetation types. Conduct fuel treatments in areas of high fire hazard and risk in the following priority order: (1) urban wildland intermix zone, (2) old forest emphasis areas where fire hazard and risk is greatest, (3) sensitive species habitats, and (4) general forest (2001 SNFPA ROD, Appendix A, p. A-25)		
Integrated pest management		
Implement moderate level of IPM with emphasis on protection of plantations and developed recreation fee sites. (LRMP p. 4-39)		
Management emphasis 1–general dispersed recreation		
Focus fire prevention program on OHV users. (LRMP p. 4-45)		For the purposes of protecting the objects included in the Monument, motorized vehicle use will be permitted only on designated roads.
Management emphases 1 and 5–general dispersed recreation and ~~wildlife and~~ dispersed recreation		
Focus fire prevention program on timber harvesting and recreational activities. (LRMP p. 4-53)		Removal of trees, except for personal use fuel wood, from within the Monument area may take place only if clearly needed for ecological restoration and maintenance or public safety.
Management emphases 2 and 3–water oriented recreation and developed recreation		
Focus fire prevention program on recreational users. (LRMP pp. 4-55, 4-58, 4-60, 4-63)		
Management emphasis 5~~–wildlife and~~ dispersed recreation		
Focus fire prevention program on hunters. (LRMP p. 4-68)		

Alternative A—General Fuels/Fire Management, cont'd.

LRMP as Amended	MSA	Proclamation
Management emphasis 4–wilderness		
Use a "confine" or "contain" suppression strategy for wildfire when public safety will not be compromised, adjacent resources can be protected and other management constraints (air quality, watershed, etc.) can be met. A "Control" strategy will be applied to all other wildfires. (LRMP p. 4-65) Follow guidance for implementation of federal wildland fire management policy (Feb. 2009).		
Use prescribed fire to enhance wilderness values. Planned and unplanned ignitions may be used. (LRMP p. 4-65)		
Limit and tightly control the use of mechanized equipment. (LRMP p. 4-65)		

Air Quality

Table 8 Alternative A–Standards and Guidelines for Air Quality

LRMP as Amended	MSA	Proclamation
Air quality		
Establish visibility monitoring program and determine sensitive indicators for each air quality related value in national forest class Areas. Protect air quality related values by reviewing all projects and management activities that may impact those values. (LRMP p. 4-27)		
Minimize resource and air quality impacts from air pollutants generated by management activities through use of the following control measures: 1. Follow dust abatement procedures; 2. Conduct an air quality analysis for all projects that may impair air quality to determine impacts, mitigations, and/or controls;		

Alternative A—Air Quality, cont'd.

LRMP as Amended	MSA	Proclamation
3. Respond to local planning authorities when development outside Forest jurisdiction may impact forest resources; 4. Conduct prescribed burning activities in accordance with air pollution control district regulations and with proper prescriptions to assure good smoke management. (LRMP p. 4-27)		
Minimize smoke emissions by following best available control measures (BACMs). Avoid burning on high visitor days. Notify the public before burning. Use the following documents for guidance and direction for smoke management and air quality protection: (1) Interim Air Quality Policy on Wildland and Prescribed Fires, announced by the Environmental Protection Agency (EPA) in 1998; (2) Memorandum of Understanding between the California Air Resources Board (CARB) and the Forest Service, signed on July 13, 1999; (3) Smoke Management Guidelines for Agricultural and Prescribed Burning under Title 17, currently being revised by CARB; and (4) the Nevada Smoke Management Plan. (SNFPA ROD, Appendix A, p. A-32)		
Coordinate and cooperate with other agencies and the public to manage air quality. Conduct prescribed burns when conditions for smoke dispersal are favorable, especially away from sensitive or class I areas. Use smoke modeling tools to predict smoke dispersion. (SNFPA ROD, Appendix A, p. A-32)		

Wildlife Habitat Management

General Wildlife Management

Table 9 Alternative A–Standards and Guidelines for General Wildlife Management

LRMP as Amended	MSA	Proclamation
Wildlife general		
Maintain the current program of direct habitat improvement by submitting requests for funds to appropriate county, state, and federal agencies. (LRMP p. 4-28)		
Use approved cooperative deer herd management plans as a guide to deer habitat management. (LRMP p. 4-28)		
AMENDED by 2001 SNFPA: ~~Protect sensitive, proposed for listing, and California species of special concern with the long-term objective for removal from Federal listing or to prevent them from being listed.~~ (LRMP p. 4-28) (See PAC and den site, LOP and other protocols for Pacific fisher, American marten, California spotted owl, northern goshawk, great gray owl, and willow flycatcher below)	**Furbearers** ~~b. Sierra Nevada red fox, pine marten and fisher will be managed as sensitive species. Region 5 of the U. S. Forest Service is developing Regional guidelines and directives for furbearer management. In FY 1990 and 1991, the Forest will identify critical habitat for these species in accordance with Region 5 Draft 1989 Guidelines for furbearer, or amendment thereto, and provide interim protection of this habitat. The Forest will use biological evaluations when surveys or historical observations indicate the presence of furbearers within a proposed project area, or when the proposed project may have a potential effect on the species or their critical habitats. Biological evaluations shall be based on surveys of the project area and shall evaluate habitats within the project area in the context of the distribution of the species within the Forest. Preference, when consistent with Regional guidelines, will be afforded to the fisher in its range from 4,000 to 8,000 feet in elevation and to the marten between 8,000 and 13,000 feet in elevation.~~ (MSA p. 56)	

Alternative A—General Wildlife Management, cont'd.

LRMP as Amended	MSA	Proclamation
	Manage recreation activities by location and period of use based on wildlife needs (e.g., excluding incompatible use from key areas during fawning and/or nesting). (MSA p. 105)	
Wildlife: federal threatened and endangered species		
Follow recovery and management plan for the following species: California condor, peregrine falcon, bald eagle, Little Kern golden trout. (LRMP p. 4-27)	**Bald Eagle** Protect important roost trees and feeding areas for wintering bald eagles in the vicinity of Pine Flat Reservoir and along the Kern River. (MSA p. 58) (Only portion of Kern River in Monument, and there are known locations where bald eagles winter.)	
Management ~~area: (OW10 oak woodland~~–emphasis 1–general dispersed recreation		
~~Limit type conversions.~~ (LRMP p. 4-44)	Delete the statement "limit type conversions" from the Fish and Wildlife section, item 4, on page 4-44 of the Plan. (MSA p. 38)	
Limit habitat management activities where concentrated OHV use occurs. (LRMP p. 4-44)		
Management ~~area: (MC1) mixed chaparral~~–emphasis: 1–general dispersed recreation		
~~Convert chaparral types to annual grass on slopes less than 10 percent.~~ (LRMP p. 4-46)	Delete the statement "convert chaparral types to annual grass on slopes less than 10%" from the Fish and Wildlife Section, item 2 on pages 4-46 and 4-69…of the Plan. (MSA p. 38)	
Limit habitat management activities where concentrated OHV use occurs. (LRMP p. 4-46)		
Management ~~area: (CF1) conifer forest~~–emphasis 1–general dispersed recreation and (CF3) emphasis 3–developed recreation		
AMENDED by 2001 SNFPA: ~~Protect fisheries and wildlife through compliance with Riparian and Meadow Guidelines.~~ (LRMP p. 4-52) Critical aquatic refuges and riparian conservation areas, riparian conservation objectives, SNFPA ROD, Appendix A, pp. 53-59.	~~MSA Exhibit D: riparian and wetland standards and guides.~~ (MSA, Exhibit D pp. 3-11)	

Alternative A—General Wildlife Management, cont'd.

LRMP as Amended	MSA	Proclamation
Management emphasis 4–wilderness		
Utilize prescribed fire for wildlife habitat improvement work. (LRMP p. 4-65)		

Wildlife Regarding Grazing/Other Uses

Table 10 Alternative A–Standards and Guidelines for Wildlife Associated with Other Uses

LRMP as Amended	MSA	Proclamation
Management ~~area: (MC5) mixed chaparral–~~emphasis 5–wildlife and dispersed recreation		
AMENDED by 2001 SNFPA: ~~Desired age classes of mixed chaparral:~~ (LRMP p. 69) ~~0-20 years= 60 percent~~ ~~20-30 years= 40 percent~~ Strategically place fuel treatments across the landscape to achieve fuel conditions that reduce the size and severity of wildland fires. Maintain 30 to 40 percent of each landscape (outside the defense zone of the urban wildland intermix zone) in a condition that meets fuel management objectives. Vegetation and fuels treatments in shrubfields: Design mechanical treatments in brush and shrub patches to remove the material necessary to achieve the following outcomes from wildland fire under 90th percentile fire weather conditions: (1) wildland fires would burn with an average flame length of 8 feet or less; (2) the fire's rate of spread would be less than 50 percent of the pre-treatment rate of spread; and (3) fire line production rates would be doubled. Treatments should be effective for more than 5 years.	~~There should be a good distribution of chaparral age classes with the objective of maintaining healthy viable stand.~~ (MSA p. 36)	
~~Convert chaparral types to annual grass on slopes less than 10 percent.~~ (LRMP p. 4-69)	Delete the statement "convert chaparral types to annual grass on slopes less than 10 percent" from the Fish and Wildlife Section, item 2 on pages 4-46 and 4-69…of the Plan. (MSA p. 38)	

Alternative A—Wildlife Regarding Grazing/Other Uses, cont'd.

LRMP as Amended	MSA	Proclamation
AMENDED by 2001 SNFPA; ~~Implement vegetation manipulation projects when crown density of browse species is greater than 70 percent or average height exceeds five feet.~~ (LRMP p. 4-69) Vegetation and Fuels Treatments in Shrubfields: Design mechanical treatments in brush and shrub patches to remove the material necessary to achieve the following outcomes from wildland fire under 90th percentile fire weather conditions: (1) wildland fires would burn with an average flame length of 8 feet or less; (2) the fire's rate of spread would be less than 50 percent of the pre-treatment rate of spread; and (3) fire line production rates would be doubled. Treatments should be effective for more than 5 years.	Implement vegetation manipulation projects when crown density of browse species is greater than 70 percent or average height exceeds five feet. (MSA p. 36)	
~~Develop water supplies on intensively treated lands.~~ (LRMP p. 4-69) Forest Service Manual for issuance of special use permits for proposals to develop water supply wells on NFS lands. Conduct appropriate analyses when evaluating proposals and applications for water wells or other activities that propose to test, study, monitor, modify, remediate, withdraw or inject ground water on NFS lands (see Technical Guide to Managing Ground Water Resources, FS-881, May 2007).	~~Develop water supplies on intensively treated lands.~~ (MSA p. 36)	
AMENDED by 2001 SNFPA: ~~Treat chaparral on slopes less than 40 percent to establish a 40-60 year age class rotation.~~ (LRMP p. 4-69) Locate fuel treatments to interrupt wildland fire spread and reduce fire severity. Typically locate treatment areas on the upper two-thirds of the slope, on south and west aspects, in mid- and lower elevation vegetation types. Conduct fuel	~~Treat vegetation on slopes greater than 40 percent to establish a 31+ year age-class rotation.~~ (MSA p. 36)	

Alternative A—Wildlife Regarding Grazing/Other Uses, cont'd.

LRMP as Amended	MSA	Proclamation
treatments in areas of high fire hazard and risk in the following priority order: (1) urban wildland intermix zone, (2) old forest emphasis areas where fire hazard and risk is greatest, (3) sensitive species habitats, and (4) general forest. Vegetation and fuels treatments in shrubfields: Design mechanical treatments in brush and shrub patches to remove the material necessary to achieve the following outcomes from wildland fire under 90th percentile fire weather conditions: (1) wildland fires would burn with an average flame length of 8 feet or less; (2) the fire's rate of spread would be less than 50 percent of the pre-treatment rate of spread; and (3) fire line production rates would be doubled. Treatments should be effective for more than 5 years. (SNFPA ROD, Appendix A, p. A-25)		
Follow regional wildlife coordination guidelines for burning prescriptions. (LRMP p. 4-70)		
Management ~~area: (CF5) conifer forest–~~emphasis 5–wildlife, dispersed recreation		
AMENDED by 2001 SNFPA: ~~Protect fisheries and wildlife through compliance with Riparian and Meadow Guidelines.~~ (LRMP p. 4-75) Critical aquatic refuges and riparian conservation areas, riparian conservation objectives, SNFPA ROD, Appendix A, pp. 53-59	~~MSA Exhibit D: riparian and wetland standards and guides.~~ (MSA, Exhibit D pp. 3-11)	
Construct permanent water chances with built-in safeguards to protect the aquatic and wildlife communities. (LRMP p. 4-75)		
AMENDED by 2001 SNFPA: ~~Create and/or maintain a vegetative buffer strip along OHV trails and areas designated for OHV use to reduce impacts on wildlife.~~ (LRMP p. 4-75)	~~Create and/or maintain a vegetative buffer strip along trails to reduce impacts on wildlife.~~ (MSA p. 105)	

Alternative A—Wildlife Regarding Grazing/Other Uses, cont'd.

LRMP as Amended	MSA	Proclamation
Minimize old forest habitat fragmentation. Assess potential impacts of fragmentation on old forest associated species (particularly fisher and marten) in biological evaluations. Evaluate locations of new landings, staging areas, and recreational developments, including trails and other disturbances. (SNFPA ROD, Appendix A, p. A-27)		
~~**Management area: (OW6) oak woodland–emphasis–grazing of livestock**~~		
AMENDED by 2001 SNFPA: ~~Maintain at least 20 square feet basal area per acre of oaks where it currently exists.~~ (LRMP p. 4-80) Manage hardwood ecosystems for a diversity of hardwood tree size classes within a stand such that seedlings, saplings, and pole-sized trees are sufficiently abundant to replace large trees that die. Retain all blue oak and valley oak trees except: (1) stand restoration strategies call for tree removal; (2) trees are lost to fire; or (3) where tree removal is needed for public health and safety. (SNFPA ROD, Appendix A, p. A-27) Wildlife: Large Tree Retention When Implementing Vegetation and Fuels Treatments: Retain montane hardwoods with a dbh of 12 inches or larger in westside forest types. Occasional mortality of larger trees is expected to occur; however, design prescribed burn prescriptions and techniques to minimize the loss of large trees and large down material. (SNFPA ROD, Appendix A, p. A-28)	~~Maintain at least 50 square feet basal area per acre of oaks where it currently exists.~~ (MSA p.32)	
AMENDED by 2001 SNFPA: Maintain understory vegetation to provide horizontal and vertical diversity (LRMP, p. 80). Manage hardwood ecosystems for a diversity of hardwood tree size classes within a stand such that	~~Maintain understory vegetation to provide horizontal and vertical diversity.~~ (MSA p. 32)	

Alternative A—Wildlife Regarding Grazing/Other Uses, cont'd.

LRMP as Amended	MSA	Proclamation
seedlings, saplings, and pole-sized trees are sufficiently abundant to replace large trees that die. (SNFPA ROD, Appendix A, p. A-27)		
AMENDED by 2001 SNFPA: Provide continual supply of oaks (LRMP p. 4-80). Manage hardwood ecosystems for a diversity of hardwood tree size classes within a stand such that seedlings, saplings, and pole-sized trees are sufficiently abundant to replace large trees that die. (SNFPA ROD, Appendix A, p. A-27)	~~Ensure a stable or upward trend in supply of oaks.~~ (MSA p. 32)	
Retain the mix of mast-producing species where they exist within a stand. (SNFPA ROD, Appendix A, p. A-27)	~~There should be a good distribution of all age classes of oaks that will optimize acorn production. The desired objective is to establish good regeneration and a healthy, viable stand.~~ (MSA p.33)	
~~Management area: (MC6) mixed chaparral–emphasis grazing of livestock~~		
Provide wildlife adaptations in all water developments. (LRMP p. 4-82)	Provide wildlife adaptations in all water developments. (MSA pp. 34 and 37)	
AMENDED by 2001 SNFPA: ~~Consider wildlife needs for cover and edge in chaparral type conversions and vegetation manipulation projects.~~ (LRMP p. 4-82) Evaluate new proposed management activities within CARs and RCAs during environmental analysis to determine consistency with the riparian conservation objectives at the project level and the AMS goals for the landscape. Ensure that appropriate mitigation measures are implemented to (1) minimize the risk of activity-related sediment entering aquatic systems, and (2) minimize impacts to habitat for aquatic- or riparian-dependent plant and animal species. (SNFPA ROD, Appendix A, p. A-54)	~~Consider wildlife needs for cover and edge in vegetation manipulation projects.~~ (MSA pp. 34 and 37)	
~~Management area: (CF6) conifer forest–emphasis 6–grazing of livestock~~		
AMENDED by 2001 SNFPA: ~~Protect fisheries and wildlife through compliance with Riparian~~	~~MSA Exhibit D: riparian and wetland standards and guides.~~ (MSA, Exhibit D, pp. 3-11)	

Alternative A—Wildlife Regarding Grazing/Other Uses, cont'd.

LRMP as Amended	MSA	Proclamation
~~and Meadow Guidelines.~~ (LRMP p. 4-86) Critical aquatic refuges and riparian conservation areas, riparian conservation objectives. (SNFPA ROD, Appendix A, pp. 53-59)		

Old Forest

Table 11 Alternative A–Standards and Guidelines for Wildlife Regarding Old Forest, Snags, and Down Woody Debris

LRMP as Amended	MSA	Proclamation
Wildlife: old forest associated species		
Minimize old forest habitat fragmentation. Assess potential impacts of fragmentation on old forest associated species (particularly fisher and marten) in biological evaluations. Evaluate locations of new landings, staging areas, and recreational developments, including trails and other disturbances. (SNFPA ROD, Appendix A, p. A-27)		
Assess the potential impact of projects on the connectivity of habitat for old forest associated species. Consider forested linkages (with canopy cover greater than 40 percent) that are interconnected via riparian areas and ridgetop saddles during landscape-level and project-level analysis. (SNFPA ROD, Appendix A, p. A-27)		
During landscape analysis, identify areas for acquisition, exchange, or conservation easements to enhance connectivity of habitat for old forest associated species. Assign a priority order for these areas. (SNFPA ROD, Appendix A, p. A-28)		
Wildlife: large tree retention: When implementing vegetation and fuels treatments, retain all live conifer trees with a dbh of 30 inches or greater in westside forest		

Alternative A—Old Forest, cont'd.

LRMP as Amended	MSA	Proclamation
types and 24 inches or greater in the eastside pine forest type. Retain montane hardwoods with a dbh of 12 inches or larger in westside forest types. Occasional mortality of larger trees is expected to occur; however, design prescribed burn prescriptions and techniques to minimize the loss of large trees and large down material. (SNFPA ROD, Appendix A, p. A-28)		
Wildlife: tree species composition: Promote shade-intolerant pine species (sugar pine and ponderosa pine) and hardwoods in westside forest types. (SNFPA ROD, Appendix A, p. A-28)		
Wildlife: snags and down woody material		
AMENDED by 2001 SFNPA: ~~Maintain a minimum average of 1.5 snags per acre in each compartment. Provide habitat for wildlife species dependent on down logs and snags in timber harvested areas.~~ (LRMP p. 4-29)	~~Maintain a minimum average of 1.5 snags per acre in each compartment.~~ (MSA p. 89)	No portion of the monument shall be considered to be suited for timber production.
Retain the following numbers of large snags after fuels treatments except where: (1) snag removal is needed to address imminent safety hazards; and (2) snag levels are reduced as a result of incidental loss to prescribed fire. In westside mixed conifer and ponderosa pine forest types, retain four of the largest snags per acre. In the red fir forest type, retain six of the largest snags per acre. ~~In eastside pine and eastside mixed conifer forest types, retain three of the largest snags per acre.~~ In Westside hardwood ecosystems, retain four of the largest snags (hardwood or conifer) per acre. Where standing live hardwood trees lack dead branches, retain six of the largest snags per acre, where they exist, to supplement wildlife needs for dead material. Use snags larger than 15 inches dbh to meet this standard. Evaluate snag density on a 10-acre		

Alternative A—Old Forest, cont'd.

LRMP as Amended	MSA	Proclamation
basis. The defense zone of the urban wildland intermix zone and developed recreation sites are exempt from this standard and guideline. (SNFPA ROD, Appendix A, p. A-28)		
Following stand-replacing events (as a result of wildland fire, insects, or diseases), do not conduct salvage harvest in at least 10 percent of the total area affected by the stand-replacing event. This unsalvaged acreage should be comprised of stands classified as California wildlife habitat relationship (CWHR) size class 5 or 6 (average dbh of overstory trees (snags) greater than 24 inches). As needed, use stands classified as CWHR size class 4 (average dbh of overstory trees (snags) between 11 and 24 inches) to reach the 10-percent level. This standard and guideline does not apply to the defense zone of the urban wildland intermix zone. (SNFPA ROD, Appendix A, p. A-28)		
Wildlife: incidental removal of vegetation and down woody material		
AMENDED by 2001 SNFPA: ~~Retain approximately 132 cubic feet per acre of well-dispersed down logs. Ideal log size is 20 inches in diameter and 20 feet in length.~~ (LRMP p. 4-29) Incidental removal of vegetation and down woody material for activities such as administering special use permits; maintaining recreation developments; constructing, reconstructing, and maintaining roads, trails, and rights of way; expanding resorts based on approved development plans; and removing trees that present imminent safety hazards may deviate from vegetation management standards and guidelines. Exceptions to vegetation management standards and guidelines may also include	~~Retain approximately 132 cubic feet per acre of well-dispersed down logs. Ideal log size is 20 inches in diameter and 20 feet in length.~~ (MSA p. 91)	

Alternative A—Old Forest, cont'd.

LRMP as Amended	MSA	Proclamation
restoration activities, such as regenerating aspen, managing sugar pine, and regenerating giant sequoia. (SNFPA ROD, Appendix A, p. A-29)		
	~~Leave 10 percent of the area of each regeneration unit with untreated slash for wildlife habitat.~~ (MSA p. 91)	No portion of the Monument shall be considered to be suited for timber production.
	Utilize management techniques which will minimize charring of downed woody material left for wildlife cover and habitat. (MSA p. 91)	
Fall and remove hazard trees along maintenance level 3, 4, and 5 roads and within or immediately adjacent (tree falling distance) to administrative sites. Review by an appropriate resource specialist is required prior to falling hazard trees along maintenance level 1 and 2 roads. Retain felled trees where needed to meet down woody material standards. (SNFPA ROD, Appendix A, p. A-29)		
Wolverine and Sierra Nevada red fox detections: Upon a detection (photograph, track plate, or sighting verified by a wildlife biologist) of a wolverine or Sierra Nevada red fox, conduct an analysis to determine if activities within 5 miles of the detection have a potential to affect the species. For a 2-year period following the detection, restrict activities that are determined in the analysis to have an adverse impact from January 1 to June 30. (SNFPA ROD, Appendix A, p. A-29)	**Furbearers:** d. The forest acknowledges the need to determine the distribution, status and trend of these species and their habitats within the Forest for biological evaluations, interim management, and the Forest Plan amendment. The forest will request adequate funding through the annual budgeting process to accomplish this in an expeditious manner. The forest will negotiate with the region to locate funds if possible for the 1990 field season to commence a systematic, intensive track plate survey of the forest. In any event, the region shall provide funds necessary to conduct the survey by the end of the 1991 field season. (Track plate survey will be used unless the Forest Service determines in consultation with Dr. Reg. Barrett that another survey method would provide better	

Alternative A—Old Forest, cont'd.

LRMP as Amended	MSA	Proclamation
	data.) The track plate survey should include as many other species as practicable. The Forest Service will consult/confer with Dr. Reg. Barrett of U. C. Berkeley in designing this survey. (MSA p. 57)	

California Condor

Table 12 Alternative A–Standards and Guidelines for California Condors

LRMP as Amended	MSA	Proclamation
California condor		
NOTE: Fish and Wildlife Service Condor Recovery Plan 1996.	~~Lion Ridge Roadless Area… unregulated lands will be managed for watershed, wildlife (old-growth species and condor), and recreation.~~ (MSA p.72) ~~Lion and Blue Ridges condor roosting sites will be protected.~~ (MSA p.72)	
NOTE: This "requirement shall apply until such time as the revised Condor Recovery Plan is implemented." The Condor Recovery Plan was revised in 1996 and requires us to protect "known" nesting sites but does not mention potential nesting sites.	All previously inventoried giant sequoia trees with cavities identified as suitable for use by a California condor shall be designated potential condor nesting sites. All newly discovered giant sequoia trees with cavities having a potential for condor nesting shall also be designated potential condor nesting sites. (MSA p.59)	
NOTE: Completed (This "requirement shall apply until such time as the revised Condor Recovery Plan is implemented." The Condor recovery plan was revised in 1996. There is no requirement in the 1996 recovery plan to evaluate potential nesting sites.)	~~Determination of cavity suitability shall be based on the criteria found in the May 4, 1984 Memorandum by K. Jiminez-Anderson (USDA, Sequoia National Forest) entitled "Surveying Sequoiagigantea Groves for Condor Nests and Roosting Trees," with the following exceptions: the following criteria, described in the aforementioned memorandum shall not be considered in determining cavity suitability (a) "perches available for young and adults to utilize while hopping in and out of nest," and(b)" fairlyeasyapproachfromtheair,andspacebelowfor takingoff."~~ (MSA p. 60)	

Alternative A—California Condor, cont'd.

LRMP as Amended	MSA	Proclamation
	~~No clear cutting shall occur within ½ mile of a potential condor nesting site.~~ (MSA p. 60)	No portion of the Monument shall be considered to be suited for timber production.
NOTE: The 1996 Condor recovery plan states "that it is prudent to continue the current U.S. Forest Service restriction of human activities within 2.4 km (1.5 mi) of California condor nest sites on Forest Service lands." "Continue the enforcement of adopted Forest Service guidelines that protect known condor nest sites from activities that could adversely modify or destroy them and provide adequate protection against human disturbance." There is no specific guidance for potential nesting sites.	~~Construction of new permanent roads and trails for public use within ½ mile of any potential condor nesting site is prohibited. The spacing of temporary roads and landings shall not be any closer than three-eights of a mile.~~ (MSA p. 60)	
NOTE: Per the 1996 Condor Recovery Plan continue the enforcement of adopted Forest Service guidelines that protect known condor nest sites from activities that could adversely modify or destroy them and provide adequate protection against human disturbance.	~~When California condors are released and are capable of nesting, the Sequoia National Forest in consultation with the Condor Recovery Team shall prepare and implement a road and trail closure plan. The Forest and Condor Recovery Team shall follow the standards and guidelines outlined in the sub-paragraphs below in preparing this plan: (a) All roads (except roads currently paved and those named in (d) below) and trails within .5 mile of a potential nesting site shall be closed to all use, and those within 1.5 miles shall be closed to motorized use, from January 1 through June 30 each year. This closure may be lifted after April 30 each year if the Sequoia National Forest in consultation with the Condor Recovery Team has completed field observations, after April 15, and has concluded that condors are not actively nesting in the affected potential nesting area. The sole limited exception to this closure shall be for Forest Service vehicles conducting business that could not be postponed until after the closure season. Logging-related uses and recreation uses are specifically~~	

Alternative A—California Condor, cont'd.

LRMP as Amended	MSA	Proclamation
	~~excluded during this closure period.~~ (MSA p. 61)	
	~~(b) If the Forest Service determines that condors are nesting in the area, roads and trails within 1.5 miles of the nesting sites shall be closed for the balance of the calendar year.~~ (MSA p. 61)	
	~~(c) Notwithstanding sub-paragraph (a) above, the following may remain open: i) Road 21S05, for recreational use, with a seasonal restriction on the operation of heavy equipment. ii) Road 21S94 from Camp Nelson to the gate at the Tule River Indian Reservation. iii) McIntyre Summer Home Tract. iv) Belknap Campground. v) Redwood Meadow Campground. vi) Trail of One Hundred Giants. vii) Long Meadow Campground. viii) 23S05 White River Road. ix) Quaking Aspen Campground. x) Holey Meadow Campground. xi) If additional potential nest sites are discovered, the Forest Service in conjunction with the Condor Recovery Team shall determine if additional campgrounds, road or other public uses may remain open.~~ (MSA p. 61)	
	~~Perennial and intermittent streams upstream and within 1.5 miles of an active nesting site shall not be drafted as a source of water for dust abatement, prescribed burning, broadcast burning, or any other purpose (except to fight wildfires) during the calendar year in which a nest is active.~~ (MSA p. 64)	
	~~The roost sites identified in the Sequoia National Forest shall remain outside the suitable land base, and shall be designated Wildlife Habitat Management Areas.~~ (MSA p. 64)	No portion of the Monument shall be considered to be suited for timber production.
	~~When California condors are released, the Forest Service, in consultation with the Condor Recovery Team, shall prepare and~~	

Alternative A—California Condor, cont'd.

LRMP as Amended	MSA	Proclamation
	~~implement a road and trails closure plan. Additionally, all roads (except currently paved roads) and trails within ½ miles of the roost sites shall be closed to all public use.~~ (MSA p. 64)	

Owls

California Spotted Owl

Table 13 Alternative A–Standards and Guidelines for California Spotted Owl

LRMP as Amended	MSA	Proclamation
California spotted owl PACs		
The spotted owl habitat areas (SOHAs) established in the original forest plans would no longer be a land allocation. FEIS, Volume 1, Chapter 2, page 38. Delineate California spotted owl protected activity centers (PACs) surrounding each territorial owl activity center detected on National Forest System lands since 1986. Owl activity centers are designated for all territorial owls based on: (1) the most recent documented nest site, (2) the most recent known roost site when a nest location remains unknown, and (3) a central point based on repeated daytime detections when neither nest or roost locations are known. (SNFPA ROD, Appendix A, p. A-33)		
Delineate PACs to: (1) include known and suspected nest stands and (2) encompass the best available 300 acres of habitat in as compact a unit as possible. Select the best available habitat for PACs to incorporate: (1) two or more tree canopy layers; (2) trees in the dominant and co-dominant crown classes averaging 24inches dbh or greater; (3) at least 70 percent tree canopy cover (including hardwoods); and (4) in descending order of priority, CWHR classes 6, 5D, 5M, 4D, and 4M and other stands with at least 50 percent		

Alternative A—California Spotted Owl, cont'd.

LRMP as Amended	MSA	Proclamation
canopy cover (including hardwoods). Use aerial photography interpretation and field verification as needed to delineate PACs. (SNFPA ROD, Appendix A, p. A-33)		
As additional nest location and habitat data become available, review boundaries of PACs and make adjustments as necessary to better include known and suspected nest stands and to encompass the best available 300 acres of habitat. (SNFPA ROD, Appendix A, p. A-33)		
When activities are planned adjacent to non-national forest lands, check available databases for the presence of nearby California spotted owl activity centers on non-national forest lands. Delineate a 300-acre circular area centered on the activity center. Designate and manage any part of the circular 300-acre area that lies on national forest lands as a California spotted owl PAC. (SNFPA ROD, Appendix A, p. A-34)		
Prior to undertaking vegetation treatments in suitable California spotted owl habitat with unknown occupancy, conduct surveys in accordance with Pacific Southwest Region survey protocol. Designate California spotted owl protected activity centers (PACs) where appropriate based on survey results. (SNFPA ROD, Appendix A, p. A-34)	~~Required evaluation of impacts for projects within 1.5 miles from the center of a SOHA, surveys and evaluation in a BE for timber sales.~~ (MSA pp. 52-55)	
When activities are planned within or adjacent to a PAC and the location of the nest site or activity center is uncertain, conduct surveys to establish or confirm the location of the nest or activity center. (SNFPA ROD, Appendix A, p. A-34)		
Maintain PACs regardless of California spotted owl occupancy status, unless habitat is rendered unsuitable by a catastrophic stand-replacing event and surveys		

Alternative A—California Spotted Owl, cont'd.

LRMP as Amended	MSA	Proclamation
conducted to protocol confirm nonoccupancy. (SNFPA ROD, Appendix A, p. A-34)		
California spotted owl PACs: limited operating period		
Maintain a limited operating period (LOP), prohibiting activities within approximately ¼-mile of the nest site during the breeding season (March 1 through August 31) unless surveys confirm that California spotted owls are not nesting. The LOP does not apply to existing road and trail use and maintenance or continuing recreation use, except where analysis of proposed projects or activities determines that either existing or proposed activities are likely to result in nest disturbance. (SNFPA ROD, Appendix A, p. A-34)		
The LOP may be waived for individual projects or activities of limited scope and duration or when a biological evaluation documents that such projects are unlikely to result in breeding disturbance considering their intensity, duration, timing, and specific location. Where a biological evaluation determines that a nest site will be shielded from planned activities by topographic features that minimize disturbance, the LOP buffer distance may be reduced. (SNFPA ROD, Appendix A, p. A-34)		
The LOP may be waived where necessary to allow for early season prescribed burning in up to 5 percent of the California spotted owl PACs on a national forest per year. (SNFPA ROD, Appendix A, p. A-34)		
The LOP may be modified or waived to assess the effects of prescribed fire and mechanical treatments on breeding owls as a formal adaptive management study developed in cooperation with the Pacific Southwest Research Station. (SNFPA ROD, Appendix A, p. A-34)		

Alternative A—California Spotted Owl, cont'd.

LRMP as Amended	MSA	Proclamation
California spotted owl PACs: fuel treatments		
In PACs located outside the defense zone of the urban wildland intermix zone: Limit stand-altering activities to reducing surface and ladder fuels through prescribed fire treatments. In forested stands with overstory trees 11 inches dbh and greater, design prescribed fire treatments that have an average flame length of 4 feet or less. Prior to burning, conduct hand treatments, including handline construction, tree pruning, and cutting of small trees (less than 6 inches dbh), within a 1- to 2-acre area surrounding known nest trees as needed to protect nest trees and trees in their immediate vicinity. (SNFPA ROD, Appendix A, p. A-35)		
In PACs located inside the defense zone of the urban wildland intermix zone:Prohibit mechanical treatments within a 500-foot radius buffer around the California spotted owl activity center. Allow prescribed burning within the 500-foot radius buffer. Prior to burning, conduct hand treatments, including handline construction, tree pruning, and cutting of small trees (less than 6 inches dbh), within a 1- to 2-acre area surrounding known nest trees as needed to protect nest trees and trees in their immediate vicinity. The remaining area of the PAC may be mechanically treated to achieve the fuels reduction outcomes described for the general forest land allocation. (SNFPA ROD, Appendix A, p. A-35)		
Conduct vegetation treatments in no more than 5 percent per year and 10 percent per decade of the California spotted owl PACs in the 11 Sierra Nevada national forests until a formal monitoring and adaptive management approach is developed in coordination with the Pacific Southwest Research		

Alternative A—California Spotted Owl, cont'd.

LRMP as Amended	MSA	Proclamation
Station. (SNFPA ROD, Appendix A, p. A-35)		
Monitor the number of PACs treated at a bioregional scale. Update the total number of PACs to account for losses of PACs due to catastrophic events. (SNFPA ROD, Appendix A, p. A-35)		
California spotted owl PACs: new roads, trails, off highway vehicle routes, recreational developments, and other developments		
Evaluate proposals for new roads, trails, off-highway vehicle routes, and recreational and other developments for their potential to disturb nest sites. Mitigate impacts where there is documented evidence of disturbance to the nest site from existing recreation, off-highway vehicle route, trail, and road uses (including road maintenance). (SNFPA ROD, Appendix A, p. A-35)		
Designating California spotted owl home range core areas		
Establish a home range core area surrounding each territorial spotted owl activity center detected after 1986. The core area amounts to 20 percent of the area described by the sum of the average breeding pair home range plus one standard error. Home range core area size is 600 acres on the Sequoia National Forest. (SNFPA ROD, Appendix A, p. A-43)		
Use aerial photography to delineate the core area. Identify acreage for the entire core area on national forest lands. Delineate core areas to encompass the best available California spotted owl habitat in the closest proximity to the owl activity center. Select the best available contiguous habitat to incorporate: (1) two or more tree canopy layers; (2) trees in the dominant and co-dominant crown classes averaging 24 inches dbh or greater; and (3) in descending order of priority, CWHR classes 6, 5D, 5M, 4D and 4M and other stands with at least 50		

Alternative A—California Spotted Owl, cont'd.

LRMP as Amended	MSA	Proclamation
percent tree canopy cover (including hardwoods). The acreage in the 300-acre PAC counts toward the total home range core area. Delineate core areas within 1.5 miles of the activity center. (SNFPA ROD, Appendix A, p. A-43)		
When activities are planned adjacent to non-national forest lands, delineate circular core areas around California spotted owl activity centers on non-national forest lands. Using the best available habitat as described above, designate and manage any part of the circular core area that lies on national forest lands as a California spotted owl home range core area. (SNFPA ROD, Appendix A, p. A-43)		
California spotted owl home range core areas: fuel treatments		
Fuel treatment standards and guidelines for California spotted owl home range core areas are identical to those presented for old forest emphasis areas above, except for the urban wildland intermix. (SNFPA ROD, Appendix A, p. A-44)		

Great Gray Owl

Table 14 Alternative A–Standards and Guidelines for Great Gray Owl

LRMP as Amended	MSA	Proclamation
Great gray owl protected activity centers (PACs): designating great gray owl PACs		
Establish and maintain a protected activity center (PAC) that includes the forested area and adjacent meadow around all known great gray owl nest stands. Delineate at least 50 acres of the highest quality nesting habitat (CWHR types 6, 5D, and 5M) available in the forested area surrounding the nest. Also include the meadow or meadow complex that supports the prey base for nesting owls. (SNFPA ROD, Appendix A, p. A-38)		

Alternative A—Great Gray Owl, cont'd.

LRMP as Amended	MSA	Proclamation
Conduct additional surveys to established protocols to follow up reliable sightings of great gray owls. (SNFPA ROD, Appendix A, p. A-38)		
Great gray owl PACs: limited operating period		
Apply a limited operating period (LOP), prohibiting vegetation management activities and road construction within ¼-mile of active great gray owl nest stands during the nesting period (typically March 1 to August 15). The LOP does not apply to: (1) existing road traffic and road maintenance, (2) trail uses, and (3) other recreational uses and activities, unless a biological evaluation documents that these activities will result in nest disturbance. The LOP may also be waived for projects of limited scope and duration. (SNFPA ROD, Appendix A, p. A-38)		
Great gray owl PACs: new roads, trails, off-highway vehicle routes, recreational developments, and other developments		
Evaluate proposals for new roads, trails, off highway vehicle routes, and recreational and other developments for their potential to disturb nest sites. Mitigate impacts where there is documented evidence of disturbance to the nest site from existing recreation, off-highway vehicle route, trail, and road uses (including road maintenance). (SNFPA ROD, Appendix A, p. A-38)		
Great gray owl PACs: grazing		
In meadow areas of great gray owl PACs, maintain herbaceous meadow vegetation at least 12 inches in height and covering at least 90 percent of the meadow. (SNFPA ROD, Appendix A, p. A-38)		

Goshawk

Table 15 Alternative A–Standards and Guidelines for Northern Goshawk

LRMP as Amended	MSA	Proclamation
Northern goshawk: designating northern goshawk PACs		
Delineate northern goshawk protected activity centers (PACs) surrounding all known and newly discovered breeding territories detected on National Forest System lands. Designate northern goshawk PACs based upon the latest documented nest site and location(s) of alternate nests. If the actual nest site is not located, designate the PAC based on the location of territorial adult birds or recently fledged juvenile goshawks during the fledgling dependency period. (SNFPA ROD, Appendix A, p. A-36) Delineate PACs to: (1) include known and suspected nest stands and (2) encompass the best available 200 acres of forested habitat in the largest contiguous patches possible, based on aerial photography. Where suitable nesting habitat occurs in small patches, define PACs as multiple blocks in the largest best available patches within 0.5 miles of one another. Best available forested stands for PACs have the following characteristics: (1) trees in the dominant and co-dominant crown classes average 24 inches dbh or greater; (2) in westside conifer and eastside mixed conifer forest types, stands have at least 70 percent tree canopy cover; and (3) in eastside pine forest types, stands have at least 60 percent tree canopy cover. Non-forest vegetation (such as brush and meadows) should not be counted as part of the 200 acres. (SNFPA ROD, Appendix A, p. A-36)	~~Protect all active goshawk nests until an approved Sequoia National Forest Goshawk Network is established. Nest protection will include 125 acres of habitat having a restricted operating season from April 1 to August 1 and will include 50 acres of undisturbed suitable habitat surrounding each active nest site. Each project will be examined for active goshawk nests with the results reported in the environmental document for that project.~~ (MSA pp. 58-59)	
As additional nest location and habitat data become available, review boundaries of PACs and make adjustments as necessary to better include known and suspected		

Alternative A—Goshawk, cont'd.

LRMP as Amended	MSA	Proclamation
nest stands and to encompass the best available 200 acres of forested habitat. (SNFPA ROD, Appendix A, p. A-36)		
When activities are planned adjacent to non-national forest lands, check available databases for the presence of nearby northern goshawk activity centers on non-national forest lands. Delineate a 200-acre circular area centered on the activity center. Designate and manage any part of the circular 200-acre area that lies on national forest lands as a northern goshawk PAC. (SNFPA ROD, Appendix A, p. A-36)		
Prior to undertaking vegetation treatments in suitable northern goshawk nesting habitat that is not within an existing California spotted owl or northern goshawk PAC, conduct surveys using Pacific Southwest Region survey protocols. Suitable northern goshawk nesting habitat is defined as follows: (1) in the eastside pine forest type, suitable nesting habitat is stands with an average tree size of 11 inches dbh or greater and at least 20 percent canopy cover; and (2) in other forest types, suitable nesting habitat is stands with an average tree size of 11 inches dbh or greater and at least 40 percent canopy cover. (SNFPA ROD, Appendix A, p. A-36)		
When activities are planned within or adjacent to a PAC and the location of the nest site or activity center is uncertain, conduct surveys to establish or confirm the location of the nest or activity center. (SNFPA ROD, Appendix A, p. A-36)		
Maintain PACs regardless of northern goshawk occupancy status, unless habitat is rendered unsuitable by a catastrophic stand-replacing event and surveys conducted to protocol confirm		

Alternative A—Goshawk, cont'd.

LRMP as Amended	MSA	Proclamation
non-occupancy. (SNFPA ROD, Appendix A, p. A-36)		
Northern goshawk PACs: limited operating period		
Maintain a limited operating period (LOP), prohibiting activities within approximately ¼-mile of the nest site during the breeding season (February 15 through September 15) unless surveys confirm that northern goshawks are not nesting. If the nest stand is unknown, either apply the LOP to a ¼-mile area surrounding the PAC or survey to determine the nest stand location. The LOP does not apply to existing road and trail use and maintenance or continuing recreation use, except where analysis of proposed projects or activities determines that either existing or proposed activities are likely to result in nest disturbance. (SNFPA ROD, Appendix A, p. A-37)		
The LOP may be waived for individual projects or activities of limited scope and duration or when a biological evaluation documents that such projects are unlikely to result in breeding disturbance considering their intensity, duration, timing, and specific location. Where a biological evaluation determines that a nest site will be shielded from planned activities by topographic features that minimize disturbance, the LOP buffer distance may be reduced. (SNFPA ROD, Appendix A, p. A-37)		
The LOP may be waived where necessary to allow for early season prescribed burning in up to 5 percent of the northern goshawk PACs on a national forest per year. (SNFPA ROD, Appendix A, p. A-37)		
Northern goshawk PACs: new roads, trails, off-highway vehicle routes, recreational developments, and other developments		
Evaluate proposals for new roads, trails, off-highway vehicle routes, and recreational and other developments for their potential to disturb nest sites. Mitigate impacts		

Alternative A—Goshawk, cont'd.

LRMP as Amended	MSA	Proclamation
where there is documented evidence of disturbance to the nest site from existing recreation, off highway vehicle route, trail, and road uses (including road maintenance). (SNFPA ROD, Appendix A, p. A-37)		
Northern goshawk PACs: fuel treatments		
In PACs located outside the defense zone of the urban wildland intermix zone: Limit stand-altering activities to reducing surface and ladder fuels through prescribed fire treatments. In forested stands with overstory trees 11 inches dbh and greater, design prescribed fire treatments that have an average flame length of 4 feet or less. Prior to burning, conduct hand treatments, including handline construction, tree pruning, and cutting of small trees (less than 6 inches dbh), within a 1- to 2-acre area surrounding known nest trees as needed to protect nest trees and trees in their immediate vicinity. (SNFPA ROD, Appendix A, p. A-37)		
In PACs located inside the defense zone of the urban wildland intermix zone: Prohibit mechanical treatments within a 500-foot radius buffer around nest trees. Allow prescribed burning within the 500-foot radius buffer. Prior to burning, conduct hand treatments, including handline construction, tree pruning, and cutting of small trees (less than 6 inches dbh), within a 1- to 2-acre area surrounding known nest trees as needed to protect nest trees and trees in their immediate vicinity. The remaining area of the PAC may be mechanically treated to achieve the fuels reduction outcomes described for the general forest land allocation. (SNFPA ROD, Appendix A, p. A-37)		
Conduct mechanical treatments in no more than 5 percent per year and 10 percent per decade of the		

Alternative A—Goshawk, cont'd.

LRMP as Amended	MSA	Proclamation
northern goshawk PACs in the 11 Sierra Nevada national forests until a formal monitoring and adaptive management study is developed in coordination with the Pacific Southwest Research Station. (SNFPA ROD, Appendix A, p. A-37)		

Fisher, Marten, and Other Furbearers

Table 16 Alternative A–Standards and Guidelines for Forest Carnivores

LRMP as Amended	MSA	Proclamation
Forest carnivore den sites: designating forest carnivore den sites		
Fisher den sites are 700-acre buffers consisting of the highest quality habitat (CWHR size class 4 or greater and canopy cover greater than 60 percent) in a compact arrangement surrounding verified fisher birthing and kit rearing dens in the largest, most contiguous blocks available. (SNFPA ROD, Appendix A, p. A-39)	**Furbearers:** ~~c. The Forest Plan shall be amended to incorporate management practices, and critical and other habitats, essential to the conservation of these species after the Region finalizes the appropriate guidelines and directions. The Forest agrees to proceed rapidly with any such Plan amendment and to publish the proposed Plan amendment within one year of the Region's final guidelines for any of the specified species.~~ (MSA pp. 56-57)	
Marten den sites are 100-acre buffers consisting of the highest quality habitat in a compact arrangement surrounding the den site. CWHR types 6, 5D, 5M, 4D, and 4M in descending order of priority, based on availability, provide highest quality habitat for the marten. (SNFPA ROD, Appendix A, p. A-39)		
Forest carnivore den sites: limited operating periods		
Protect fisher den site buffers from disturbance with a limited operating period (LOP) from March 1 through June 30 for all new projects as long as habitat remains suitable or until another Regionally approved management strategy is implemented. The LOP may be waived for individual projects of limited scope and duration, when a biological evaluation documents that such projects are unlikely to		

Alternative A—Fisher, Marten, and Other Furbearers, cont'd.

LRMP as Amended	MSA	Proclamation
result in breeding disturbance considering their intensity, duration, timing, and specific location. (SNFPA ROD, Appendix A, p. A-39)	~~e. Exhibit H identifies certain closed canopy (~40%) mature or old growth stands which may meet some of the habitat requirements sequoia mediation agreement, for furbearers or may have the potential of being identified as critical furbearer habitat. Until the furbearer habitat network is established, biological evaluations will be used to determine the potential effects on furbearers and the establishment/maintenance of their critical habitation and viable populations where project proposals impact the above identified areas. Where projects are proposed impacting old growth stands in Exhibit H, disclosure in the EA/EIS will show analysis of such impacts on maintaining adequate old growth resources and need to maintain these areas for furbearer habitat. The Forest Service shall consult with the Department of Fish and Game to determine whether these stands should be protected as a means of meeting the habitat/seral stage diversity requirements.~~ (MSA pp. 57-58)	
Protect marten den site buffers from disturbance with a limited operating period (LOP) from May 1 through July 31 for all new projects as long as habitat remains suitable or until another regionally approved management strategy is implemented. (SNFPA ROD, Appendix A, p. A-39)		
Evaluate the appropriateness of LOPs for existing uses in fisher and marten den site buffers during environmental analysis. (SNFPA ROD, Appendix A, p. A-39)		
Forest carnivore den sites: fuel treatments		
Avoid fuel treatments in den site buffers to the extent possible. If areas within den site buffers must be treated to achieve fuels objectives for the urban wildland intermix zone, limit treatments		

Alternative A—Fisher, Marten, and Other Furbearers, cont'd.

LRMP as Amended	MSA	Proclamation
to mechanical clearing of fuels. Treat ladder and surface fuels over 85 percent of the treatment unit to achieve fuels objectives. Use piling or mastication to treat surface fuels during initial treatment. Burning of piled debris is allowed. Prescribed fire may be used to treat fuels if no other reasonable alternative exists. (SNFPA ROD, Appendix A, p. A-39)		
Forest carnivore den sites: roads, trails, off-highway vehicle routes, recreational developments, and other developments		
Evaluate proposals for new roads, trails, off highway vehicle routes, and recreational and other developments for their potential to disturb den sites. Mitigate impacts where there is documented evidence of disturbance to the den site from existing recreation, off highway vehicle route, trail, and road uses (including road maintenance). (SNFPA ROD, Appendix A, p. A-40)		
Southern Sierra Fisher Conservation Area: activity-related standards and guidelines		
Because the effects of prescribed fire on key components of fisher habitat are uncertain, give preference to mechanical treatments over prescribed fire. However, prescribed fire may be applied to achieve restoration and regeneration objectives for fire adapted giant sequoia. (SNFPA ROD, Appendix A, p. A-45)	**Furbearers:** ~~a. The Sequoia National Forest will manage habitats and activities for threatened and endangered species to achieve recovery objectives, and for sensitive species, to insure that they do not become threatened or endangered because of Forest Service actions (as specified in FSM 2670).~~ (MSA p. 55)	
In areas outside the urban wildland intermix zone, manage each planning watershed to support fisher habitat requirements. Retain 60 percent of each 5,000- to 10,000-acre watershed in CWHR size class 4 (average dbh of overstory trees between 11 and 24 inches) or greater and canopy cover greater than or equal to 60 percent. (SNFPA ROD, Appendix A, p. A-45)		
Prior to vegetation treatments, identify important wildlife structures,		

Alternative A—Fisher, Marten, and Other Furbearers, cont'd.

LRMP as Amended	MSA	Proclamation
such as large-diameter snags and coarse woody material within the treatment unit. For prescribed fire treatments, use firing patterns, fire lines around snags and large logs, and other techniques to minimize effects on snags and large logs. (SNFPA ROD, Appendix A, p. A-45)		
Evaluate the effectiveness of these mitigation measures after treatment. (SNFPA ROD, Appendix A, p. A-45)		

Willow Flycatcher

Table 17 Alternative A–Standards and Guidelines for Willow Flycatcher

LRMP as Amended	MSA	Proclamation
Willow flycatcher habitat: activity-related standards and guidelines		
Evaluate proposals for new concentrated stock areas (for example, livestock handling and management facilities, pack stations, equestrian stations, and corrals) located within 5 miles of occupied willow flycatcher habitat. Apply a broad landscape-level analysis in the biological evaluation for the project to determine if such action will increase brood parasitism pressure by the brown-headed cowbird. (SNFPA ROD, Appendix A, p. A-61)		
As part of landscape analysis, give priority to meadow restoration opportunities near or adjacent to known willow flycatcher sites. (SNFPA ROD, Appendix A, p. A-61)		
To the extent possible, construct no new roads in potential willow flycatcher habitat. Potential willow flycatcher habitat includes: (1) occupied willow flycatcher habitat; (2) known willow flycatcher sites; (3) emphasis habitat; and (4) small, wet woody meadows (meadows less than 15 acres that have standing water on June 1 and a deciduous shrub component). (SNFPA ROD, Appendix A, p. A-61)		

Alternative A—Willow Flycatcher, cont'd.

LRMP as Amended	MSA	Proclamation
Beginning in 2001, initiate a 4-year cycle for conducting willow flycatcher surveys in all 82 known willow flycatcher sites. In the first year, conduct willow flycatcher surveys to established protocols in all 82 known willow flycatcher sites. In the second year, conduct surveys in the known sites where willow flycatchers were not found in the first-year survey. Surveys are not conducted in the third and fourth years of the cycle of all known sites. After the fourth year, repeat the 4-year survey cycle of all known sites. (SNFPA ROD, Appendix A, p. A-61)		
If willow flycatchers are detected during the surveys of known willow flycatcher sites, eliminate livestock grazing in the entire meadow (to the forested or other upland vegetation edge), beginning 1 calendar year after the detection in this occupied known site. Use permanent or electrical fencing or otherwise ensure that livestock avoid these sites. If willow flycatchers are not detected during the surveys of known willow flycatcher sites, allow late season grazing at utilization levels based on habitat condition of these unoccupied known sites. Beginning in 2003, prohibit livestock grazing in meadows of the 82 known willow flycatcher sites where surveys have not been completed. (SNFPA ROD, Appendix A, p. A-61)		
In unoccupied known willow flycatcher sites where late-season grazing is allowed, annually monitor utilization of riparian vegetation using regional range analysis and planning guides. Every 3 years, monitor willow flycatcher habitat using the following criteria: (1) rooting depth cores for meadow condition, (2) point intercepts for shrub foliar density, and (3) strip transects for shrub recruitment and cover. Include meadow condition		

Alternative A—Willow Flycatcher, cont'd.

LRMP as Amended	MSA	Proclamation
assessments in geographical information systems (GIS) coverages. If habitat conditions in unoccupied known willow flycatcher sites are not supporting the willow flycatcher or are trending downward, modify or suspend grazing in these areas. Use established protocols to conduct these surveys. If these surveys detect willow flycatchers, only allow late season grazing at utilization levels assessed according to habitat condition in these occupied emphasis sites. Subsequently include these occupied emphasis sites in the 4-year survey cycle for known willow flycatcher sites described above. In addition, survey emphasis habitat within 5 miles of these new occupied sites. In emphasis habitats where these surveys do not detect willow flycatchers, apply the grazing standard and guideline for meadows (the fourth standard and guideline described under RCO #5 in section 14, Riparian Conservation Areas), and repeat the surveys in these areas every 3 years. If willow flycatcher surveys of emphasis habitat within 5 miles of the 82 known willow flycatcher sites are not completed within 5 years, only allow late season grazing in these emphasis habitats. (SNFPA ROD, Appendix A, p. A-61)		
Apply late-season grazing in known willow flycatcher sites where flycatchers are not detected and in occupied willow flycatcher emphasis sites during the willow flycatcher breeding season, which extends from June 1 to August 31. These dates may be modified when multi-year monitoring data support different dates for a particular breeding location. (SNFPA ROD, Appendix A, p. A-62)		

Alternative A—Willow Flycatcher, cont'd.

LRMP as Amended	MSA	Proclamation
Evaluate site condition of known sites and emphasis habitat. Those sites that no longer contain water on June 1 and lack a deciduous shrub component may be removed from the conservation network. (SNFPA ROD, Appendix A, p. A-62)		

Threatened, Endangered, and Sensitive Plants, and Invasive Nonnative Species

Table 18 Alternative A–Standards and Guidelines for Threatened, Endangered, and Sensitive Plants

LRMP as Amended	MSA	Proclamation
Threatened, endangered, proposed, and sensitive (TEPS) plant species		
Minimize or eliminate direct and indirect impacts from management activities on TEPS plants unless the activity is designed to maintain or improve plant populations. (Forest Service Manual 2670). (SNFPA ROD, Appendix A, p. A-29)		
Conduct field surveys for threatened, endangered, proposed, and sensitive (TEPS) plant species early enough in the project planning process so that the project can be designed to conserve or enhance TEPS plants and their habitat. Conduct surveys according to procedures outlined in the Forest Service Handbook (FSH 2609.25.11). If additional field surveys are conducted as part of project implementation, document the survey results in the project file. (SNFPA ROD, Appendix A, p. A-29)		
Ensure that all projects involving revegetation (planting or seeding) adhere to regional native plant policies. (SNFPA ROD, Appendix A, p. A-30)		

Invasive Nonnative Species

Table 19 Alternative A–Standards and Guidelines for Invasive Nonnative Species Management

LRMP as Amended	MSA	Proclamation
Noxious weed management		
Follow Forest Service Manual (FSM 2080) direction pertaining to integrated weed management when planning weed control projects. (SNFPA ROD, Appendix A, p. A-30)		
Inform forest users, local agencies, special use permittees, groups, and organizations in communities near national forests about noxious weed prevention and management. (SNFPA ROD, Appendix A, p. A-30)		
Work cooperatively with California and Nevada state agencies and individual counties (for example, cooperative weed management areas) to: (1) prevent the introduction and establishment of noxious weed infestations and (2) control existing infestations. (SNFPA ROD, Appendix A, p. A-30)		
As part of project planning, conduct a noxious weed risk assessment to determine risks for weed spread (high, moderate, or low) associated with different types of proposed management activities. Refer to weed prevention practices in the Regional Noxious Weed Management Strategy to develop mitigation measures for high and moderate risk activities. (SNFPA ROD, Appendix A, p. A-30)		
When prescribed in project-level noxious weed risk assessments, require off-road equipment and vehicles (both Forest Service and contracted) used for project implementation to be weed free. Refer to weed prevention practices in the Regional Noxious Weed Management Strategy. (SNFPA ROD, Appendix A, p. A-30)		
Minimize weed spread by incorporating weed prevention and control measures into ongoing management or maintenance activities that involve ground		

Alternative A—Invasive Nonnative Species, cont'd.

LRMP as Amended	MSA	Proclamation
disturbance or the possibility of spreading weeds. Refer to weed prevention practices in the Regional Noxious Weed Management Strategy. (SNFPA ROD, Appendix A, p. A-30)		
Conduct follow-up inspections of ground-disturbing activities to ensure adherence to the Regional Noxious Weed Management Strategy. (SNFPA ROD, Appendix A, p. A-30)		
Encourage use of certified weed free hay and straw. Cooperate with other agencies and the public in developing a certification program for weed free hay and straw. Phase in the program as certified weed free hay and straw becomes available. This standard and guideline applies to pack and saddle stock used by the public, livestock permittees, outfitter guide permittees, and local, state, and federal agencies. (SNFPA ROD, Appendix A, p. A-30)		
Include weed prevention measures, as necessary, when amending or re-issuing permits (including, but not limited to, livestock grazing, special uses, and pack stock operator permits). (SNFPA ROD, Appendix A, p. A-30)		
Include weed prevention measures and weed control treatments in ~~mining plans of operation and~~ reclamation plans. Refer to weed prevention practices in the Regional Noxious Weed Management Strategy. Monitor for weeds, as appropriate, for 2 years after project implementation (assuming no weed introductions have occurred). (SNFPA ROD, Appendix A, p. A-30)		All federal lands and interests in lands within the boundaries of this monument are hereby appropriated and withdrawn from…sale, leasing, or other disposition under the public land laws including… disposition under all laws…other than by exchange that furthers the protective purposes of the monument. Lands and interests in lands within the boundaries of the monument not owned by the United States shall be reserved as a part of the monument upon acquisition of title thereto by the United States.
Conduct a risk analysis for weed spread associated with burned area		

Alternative A—Invasive Nonnative Species, cont'd.

LRMP as Amended	MSA	Proclamation
emergency rehabilitation (BAER) treatments. The BAER team is responsible for conducting this analysis. Monitor and treat weed infestations for 3 years after the fire. (SNFPA ROD, Appendix A, p. A-30)		
During landscape analysis or project-level planning, consider restoring or revegetating degraded ecosystems to minimize the potential for noxious weed reinfestations. Adhere to regional native plant policies for revegetation. (SNFPA ROD, Appendix A, p. A-30)		
Consult with American Indians to determine priority areas for weed prevention and control where traditional gathering areas are threatened by weed infestations. (SNFPA ROD, Appendix A, p. A-31)		
Complete noxious weed inventories, based on a regional protocol, within 3 years of the signing of the record of decision for the Sierra Nevada Forest Plan Amendment. Review and update these inventories on an annual basis. (SNFPA ROD, Appendix A, p. A-31)		
As outlined in the Regional Noxious Weed Management Strategy, when new, small weed infestations are detected, emphasize eradication of these infestations while providing for the safety of field personnel. (SNFPA ROD, Appendix A, p. A-31)		
Routinely monitor noxious weed control projects to determine success and to evaluate the need for follow-up treatments or different control methods. Monitor known weed infestations, as appropriate, to determine changes in weed population density and rate of spread. (SNFPA ROD, Appendix A, p. A-31)		

Range Management

Table 20 Alternative A–Standards and Guidelines for Range Management

LRMP as Amended	MSA	Proclamation
Range		
NOTE: No standard needed, direction provided in FSH 2209.13- Grazing Permit Administration Handbook; Chapter 90- Rangeland Management Decisionmaking.	~~Allotment management plans will include specific information on range condition, trends, livestock grazing capacity, utilization maps and measurements, and forage and habitat allowances for wildlife and they will assess grazing impacts on wildlife, fisheries, water quality and other environmental values. Where such information is lacking from an allotment management plan, it shall be added when the plan is next amended or renewed. Management plans will develop strategies to minimize or discourage livestock use in botanical areas. Where livestock use is in direct conflict with the values for which the botanical area was established, that use will be eliminated. Where livestock grazing is shown to be beneficial for the endangered or sensitive species, it will remain.~~ (MSA p. 39)	
NOTE: FSH 1909.15(7) Schedule of Proposed Action (All decisions requiring a project record and written decision document are on the Schedule of Proposed Actions.	~~The quarterly project planning schedule shall include the allotment plans that are scheduled for renewal or amendment.~~ (MSA p. 40)	
AMENDED by 2001 SNFPA: ~~Meadows will be grazed to allowable use standards as determined by the height/weight or grazed plot method.~~ (LRMP p. 4-30) Under season-long grazing: For meadows in early seral status—limit livestock utilization of grass and grass-like plants to 30 percent (or minimum 6-inch stubble height). For meadows in late seral status—limit livestock utilization of grass and grass-like plants to a maximum of 40 percent (or minimum 4-inch stubble height). (SNFPA ROD, Appendix A, p. A-58)	~~The Plan shall be amended to change the last sentence to read, "Monitor the effectiveness of the Sequoia National Forest's Riparian and Wetlands Standards and Guidelines.~~ (MSA p. 39)	

Alternative A—Range Management, cont'd.

LRMP as Amended	MSA	Proclamation
NOTE: See also standards and guidelines for willow flycatcher in the wildlife section.		
In meadow areas of great gray owl PACs, maintain herbaceous meadow vegetation at least 12 inches in height and covering at least 90 percent of the meadow. (SNFPA ROD, Appendix A, p. A-38)		

Table 21 Alternative A–Standards and Guidelines for Grazing in Hardwood and Chaparral

LRMP as Amended	MSA	Proclamation
Grazing and hardwood (oak) management		
NOTE: (FSH 2209.13, Chapter 90: 92.23.2) A proposed action that includes authorization of livestock grazing shall also include the basic elements of an allotment management plan because these elements will ultimately be obtained directly from the NEPA-based decisions and will be included in part 3 of the grazing permit forms… as an AMP.	~~The Plan will be amended to clarify that Animal Unit Months ("AUMs") allotted under the Forest Plan will not be increased over recent historic levels of approximately 68,000 annually.~~ (MSA p. 28)	
AMENDED by 2001 SNFPA: ~~Do not utilize mechanical treatments of blue oak.~~ (LRMP pg 4-77) Retain all blue oak and valley oak trees except: (1) stand restoration strategies call for tree removal; (2) trees are lost to fire; or (3) where tree removal is needed for public health and safety (2001 SNFPA ROD, Appendix A, A-27)	~~Give priority to maintaining and enhancing blue oak.~~ (MSA p. 28)	
~~Develop water, fences, trails etc. To facilitate optimum use of forage.~~ (LRMP pg. 4-77, 4-80) NOTE: Current direction provided by Forest Service Manual 2240.3	~~Develop water, fences, trails, etc., to facilitate optimum use of forage.~~ (MSA p. 28)	
Grazing utilization in annual grasslands will maintain a minimum of 60 percent cover. Where grasslands are in satisfactory condition and annual precipitation is greater than 10 inches, manage for 700 pounds residual dry matter (RDM) per acre. Where grasslands	~~Retain at least 700 lbs/acre residual dry matter (RDM) as the utilization standard for livestock use.~~ (MSA pg. 28) ~~Winter grazing allotments will limit browse utilization to a change of no more than 15% of preferred browse or 5% of staple species to heavily~~	

Alternative A—Range Management, cont'd.

LRMP as Amended	MSA	Proclamation
are in satisfactory condition and annual precipitation is less than 10 inches, manage for 400 pounds RDM per acre. Where grasslands are in unsatisfactory condition and annual precipitation is greater than 10 inches, manage for 1,000 pounds RDM per acre; manage for 700 pounds RDM per acre where grasslands are in unsatisfactory condition and precipitation is less than 10 inches. Adjust these standards, as needed, based on grassland condition. (SNFPA ROD, Appendix A, p. A-31)	~~browsed conditions (form class 3 or 6). Limited browsing will maintain browse in satisfactory condition and indicate that green feed is available for wildlife during winter "green up" (inadequate green forage period).~~ (MSA p. 29)	
Limit browsing to no more than 20 percent of the annual leader growth of mature riparian shrubs (including willow and aspen) and no more than 20 percent of individual seedlings. Remove livestock from any area of an allotment when browsing indicates a change in livestock preference from grazing herbaceous vegetation to browsing woody riparian vegetation. Herd sheep away from woody riparian vegetation at all times. (SNFPA ROD, Appendix A, p. A-59)		
Retain the mix of mast-producing species where they exist within a stand. (SNFPA ROD, Appendix A, p. A-27)	~~Allotment Management plans will emphasize wildlife use of mast crops.~~ (MSA p. 29)	
Manage hardwood ecosystems for a diversity of hardwood tree size classes within a stand such that seedlings, saplings, and pole-sized trees are sufficiently abundant to replace large trees that die. (SNFPA ROD, Appendix A, p. A-27)	~~Pursuant to a contract with the Forest Service, the University of California through the Fresno Foundation California Agricultural Technology Institute, has completed and published in November, 1989 a study of reproduction and age-class frequency of blue oaks on the Sequoia National Forest. Based upon the results of this study,~~ the Sequoia National Forest will adopt allotment specific minimum threshold levels of oak recruitment for implementation in allotment plan revisions ~~beginning in 1991 or sooner as specified in item (7) below~~. (MSA p. 29)	

Alternative A—Range Management, cont'd.

LRMP as Amended	MSA	Proclamation
To protect hardwood regeneration in grazing allotments, allow livestock browse on no more than 20 percent of annual growth of hardwood seedlings and advanced regeneration. Alter grazing plans if hardwood regeneration and recruitment needs are not being met. (SNFPA ROD, Appendix A, p. A-31)	~~The Sequoia National Forest will identify allotments where oak reproduction is at or below the threshold level and will develop long-term strategies to increase recruitment of oaks into these stands. Upon renewal, allotment management plans will be used to prescribe management strategies to improve management of oak and enhance recruitment based on the University of California study of the Sequoia National Forest along with other studies. A variety of strategies will be considered to recruitment obtain an adequate recruitment of oak. The Forest Service will monitor recruitment of oak species into the stands as part of allotment plan inspections and analysis.~~ (MSA p. 30)	
AMENDED by 2001 SNFPA: ~~Use prescribed fire as primary method to accomplish age class management.~~ (LRMP p. 4-82) Locate fuel treatments to interrupt wildland fire spread and reduce fire severity. Typically locate treatment areas on the upper two-thirds of the slope, on south and west aspects, in mid- and lower elevation vegetation types. Conduct fuel treatments in areas of high fire hazard and risk in the following priority order: (1) urban wildland intermix zone, (2) old forest emphasis areas where fire hazard and risk is greatest, (3) sensitive species habitats, and (4) general forest. Vegetation and Fuels Treatments in Shrubfields: Design mechanical treatments in brush and shrub patches to remove the material necessary to achieve the following outcomes from wildland fire under 90th percentile fire weather conditions: (1) wildland fires would burn with an average flame length of 8 feet or less; (2) the fire's rate of spread would be less than 50 percent of the pre-treatment rate of	~~Use prescribed fire as primary method to accomplish age-class management. No more than 60 percent of the vegetation should be in the seedling/sprout-young age-class. Slopes over 40 percent are allocated to provide age-classes of 31+ years and older.~~ (MSA p. 37)	

Alternative A—Range Management, cont'd.

LRMP as Amended	MSA	Proclamation
spread; and (3) fire line production rates would be doubled. Treatments should be effective for more than 5 years. (SNFPA ROD, Appendix A, p. A-25)		
~~Convert chaparral types to annual grass on slopes less than 10 percent.~~ (LRMP p. 4-82)	References to type conversion are to be deleted from the Plan: Delete the statement "convert chaparral types to annual grass on slopes less than 10 percent" from the Range section, item 2, on page 4-82 of the Plan. (MSA p. 38)	
AMENDED by 2001 SNFPA: ~~Implement vegetative manipulation projects on slopes less than 40 percent when crown density of browse species is greater than 70 percent or average height exceeds five feet.~~ (LRMP p. 4-82) Design mechanical treatments in brush and shrub patches to remove the material necessary to achieve the following outcomes from wildland fire under 90th percentile fire weather conditions: (1) wildland fires would burn with an average flame length of 8 feet or less; (2) the fire's rate of spread would be less than 50 percent of the pre-treatment rate of spread; and (3) fire line production rates would be doubled. Treatments should be effective for more than 5 years. (SNFPA ROD, Appendix A, p. A-25)	~~Implement vegetative manipulation projects on slopes less than 40 percent when crown cover of browse species is greater than 70 percent or average height exceeds 5 feet.~~ (MSA p. 37)	
~~Develop water supplies fences and trails where needed on intensively treated lands.~~ (LRMP pg. 4-82)	~~Develop water supplies, fences, and trails where needed on intensively treated lands.~~ (MSA pp. 34 and 36)	
NOTE: No Standard needed-direction provided by FSH 2209.13, Chapter 90: 92.23.2: A proposed action that includes authorization of livestock grazing shall also include the basic elements of an allotment management plan because these elements will ultimately be obtained directly from the NEPA-based decisions and will be included in part 3 of the grazing permit forms… as an AMP.	~~Allotment Management Plans will be used to prescribe management strategies for the first three growing seasons to manage livestock grazing to promote recovery of the mixed chaparral community and maintain native plant species diversity following prescribed fire. Salting, managing water development, riding, deferring or changing season of use and drift fencing are some of the strategies~~	

Alternative A—Range Management, cont'd.

LRMP as Amended	MSA	Proclamation
	~~to be considered for implementation following fire to maintain native plant species diversity.~~ (MSA p. 35)	
	More than 50 percent of the prescribed fires are to occur in the late summer and fall. (MSA p. 37)	
Under season-long grazing: For meadows in early seral status—limit livestock utilization of grass and grass-like plants to 30 percent (or minimum 6-inch stubble height). For meadows in late seral status—limit livestock utilization of grass and grass-like plants to a maximum of 40 percent (or minimum 4-inch stubble height). (SNFPA ROD, Appendix A, p. A-58)		

Hydrological Resources, Soils, Geological Resources

Watershed

Table 22 Alternative A–Standards and Guidelines for Watershed RCO 1

LRMP as Amended	MSA	Proclamation
Riparian conservation objective 1		
Implement project appropriate best management practices and monitor their effectiveness following protocols outlined in "Investigating Water Quality in the Pacific Southwest Region: Best Management Practices Evaluation Program" (USDA-FS, PSW Region 1992). (SNFPA ROD, Appendix A, RCO 1, p. A-53) For waters designated as "Water Quality Limited" (Clean Water Act Section 303(d)), implement appropriate State mandates for the water body, such as total maximum daily load (TMDL) protocols. (SNFPA ROD, Appendix A, RCO 1, p. A-53)		
Conduct project-specific cumulative watershed effects analysis following regional procedures or other appropriate scientific methodology to meet NEPA requirements. (SNFPA ROD, Appendix A, RCO 1, p. A-53)	Cumulative Watershed Effects Analysis: Use the Sequoia National Forests cumulative watershed effects (CWE) methodology for application within the forest to assess each project for potential to incur cumulative effects.	

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
	The forest shall determine the proper size of the watershed unit to be subject to CWE analysis based on the identified beneficial use(s). The unit size will generally range from 250 to 2,000 acres. Each project NEPA document shall identify the beneficial uses of water and the most sensitive stream reach(es) as part of the CWE analysis (p. 110). Identification and Evaluation of Processes Within the Watershed (CWE Analysis): The Sequoia National Forest staff will determine the controlling processes of concern (as required by FSM 2509.22, 7/88, Amendment 1) in order to assess disturbance coefficients and mitigation opportunities: Where, according to established criteria, soil erosion and sediment supply are determined to be controlling processes, CWE shall analyze change in soil erosion and sediment supply as processes independent of change in annual peak flow run-off. In assessing sediment impacts, relative changes in erosion and sediment delivery rather than only the amount of compaction shall be assessed. CWE analysis shall identify the most crucial elements in the watershed, i.e., the specific processes that are controlling the system (e.g., rain-on-snow events and surface erosion). When sedimentation is identified as the controlling process, the Sequoia National Forest shall modify its disturbance coefficients to include evaluation of sediment yield and transport. Where sedimentation is identified as a	

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
	dominant earth-forming process by established criteria, the forest will identify erosional processes affecting sites as mentioned above. The forest will identify soil condition class and evaluate it together with erodibility potential to give information on site conditions that address sediment yield. In determining ERAS for any given project, the forest shall state the assumptions that formed the basis for its calculation, including any modifications of standard ERA values that might have been made because of site-specific observations, and shall distinguish between existing and residual ERAS. Until such time as there is sufficient data to establish the recovery rate in a given watershed, the forest shall utilize a linear thirty year recovery rate. However, the forest may use an exponential recovery rate instead of a linear recovery rate if the forest determines surface erosion to be the predominant hydrological process impacting the streams and can provide either references or on-site inventories to support these recovery rates. If a proposed project would increase ERAS to within 20 percent of the threshold of concern in a watershed, the forest will perform an on-site review to determine the actual recovery rates and to evaluate the effects of the proposed project: (a) where field verification is Impossible, the forest may assume a thirty year recovery rate; (B) where field verification is undertaken, the recovery rate should be based on a time trend in the ERA for management units. The ERA at any point in time is determined based on an on-site inspection of site conditions	

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
	(percent cover, stand development, measure of soil disturbance, and compaction, development of erosion pavements, etc.), and a professional assessment of how these factors influence on-site generation of parameters of concern (peak flows, sediment, etc.). Factors used to judge the ERA for a site will be explicitly recorded and data sheets of site conditions (percent cover, etc.) will be maintained by the forest to allow for future changes in assessment relationships (MSA pp. 110-117).	
Implement soil quality standards for soil loss, detrimental soil compaction, and organic matter retention to minimize the risk of sediment delivery to aquatic systems from management activities. Ensure that management-related activities, including roads, skid trails, landings, trails, or other activities, do not result in detrimental soil compaction on more than 5 percent of the RCA or 10 percent of the area in CARs. Measure compaction using the procedures outlined in Appendix F of the FEIS (SNFPA ROD, Appendix A, RCO 1, p. A-53). Identify existing and potential sources of sediment delivery to aquatic systems. Implement preventive and restoration measures, such as modifying management activities, increasing ground cover, reducing the extent of compacted surfaces, or revegetating disturbed sites to reduce or eliminate sediment delivery from these sources to aquatic systems (SNFPA ROD, Appendix A, RCO 1, pp. A-53-54). Evaluate new proposed management activities within CARs and RCAs during environmental analysis to determine consistency with the riparian conservation objectives at the project level and the AMS goals for the landscape. Ensure		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
that appropriate mitigation measures are implemented to (1) minimize the risk of activity-related sediment entering aquatic systems, and (2) minimize impacts on habitat for aquatic- or riparian-dependent plant and animal species (SNFPA ROD, Appendix A, RCO 1, p. A-54). Identify existing uses and activities in CARs and RCAs during landscape analysis. Evaluate existing management activities to determine consistency with RCOs during project-level analysis. Develop and implement actions needed for consistency with RCOs (SNFPA ROD, Appendix A, RCO 1, p. A-54). Ensure that management activities do not adversely affect water temperatures necessary for local aquatic and riparian-dependent species assemblages (SNFPA ROD, Appendix A, RCO 1, p. A-54). Limit pesticide applications to cases where project-level analysis indicates that pesticide applications are consistent with riparian conservation objectives. Prohibit application of pesticides to livestock in RCAs and CARs (SNFPA ROD, Appendix A, RCO 1, p. A-54). Avoid pesticide applications within 500 feet of known occupied sites for the California red-legged frog, Cascade frog, Yosemite toad, foothill yellow-legged frog, mountain yellow-legged frog, and northern leopard frog unless environmental analysis documents that pesticides are needed to restore or enhance habitat for these amphibian species (SNFPA ROD, Appendix A, RCO 1, p. A-54). Prohibit storage of fuels and other toxic materials within RCAs and CARs except at designated administrative sites. Prohibit		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
refueling within RCAs and CARs unless there are no other alternatives. Ensure that spill plans are reviewed and up-to-date (SNFPA ROD, Appendix A, RCO 1, p. A-54).		

Table 23 Alternative A–Standards and Guidelines for RCO 2

LRMP as Amended	MSA	Proclamation
Riparian conservation objective 2		
Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity. (SNFPA ROD, Appendix A, RCO 2, p. A-54) Ensure that culverts or other stream crossings do not create barriers to upstream or downstream passage for aquatic-dependent species. Locate water drafting sites to avoid adverse effects to in stream flows and depletion of pool habitat. Where possible, maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows, wetlands, and other special aquatic features. (SNFPA ROD, Appendix A, RCO 2, p. A-54) Prior to activities that could affect streams, determine if relevant geomorphic characteristics, including bank angle, channel bank stability, bank full width-to-depth ratio, embeddedness, channel-floodplain connectivity, residual pool depth, or channel substrate, are within the range of natural variability for the reference stream type as described in the Pacific Southwest Region Stream Condition Inventory protocol. If properties are outside		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
the range of natural variability, implement restoration actions that will result in an upward trend. (SNFPA ROD, Appendix A, RCO 2, p. A-55) Prevent disturbance to meadow-associated streambanks and natural lake and pond shorelines caused by resource activities (for example, livestock, off-highway vehicles, and dispersed recreation) from exceeding 20 percent of stream reach or 20 percent of natural lake and pond shorelines. Disturbance includes bank sloughing, chiseling, trampling, and other means of exposing bare soil or cutting plant roots. This standard does not apply to developed recreation sites and designated off-highway vehicle routes. (SNFPA ROD, Appendix A, RCO 2, p. A-55) In stream reaches occupied by, or identified as "essential habitat" in the conservation assessment for, ~~the Lahonton and Paiute cutthroat trout and~~ the Little Kern golden trout, limit streambank disturbance from livestock to 10 percent of the occupied or "essential habitat" stream reach. (Conservation assessments are described in the record of decision.) Cooperate with state and federal agencies to develop streambank disturbance standards for threatened, endangered, and sensitive species. Use the regional streambank assessment protocol. Implement corrective action where disturbance limits have been exceeded. (SNFPA ROD, Appendix A, RCO 2, p. A-55) Determine if the age class, structural diversity, composition, and cover of riparian vegetation are within the range of natural variability for the vegetative community. If outside the range of natural variability, implement restoration		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
actions that will result in an upward trend. Actions could include restoration of aspen or other riparian vegetation where conifer encroachment is identified as a problem. (SNFPA ROD, Appendix A, RCO 2, p. A-55) Cooperate with federal, tribal, state, and local governments to secure in stream flows needed to maintain, recover, and restore riparian resources, channel conditions, and aquatic habitat. Maintain in stream flows to protect aquatic systems to which species are uniquely adapted. Minimize the effects of stream diversions or other flow modifications from hydroelectric projects on threatened, endangered, and sensitive species and essential habitat as identified in conservation assessments. (Conservation assessments are described in the record of decision.) (SNFPA ROD, Appendix A, RCO 2, p. A-55) During relicensing of Federal Energy Regulatory Commission (FERC) hydroelectric projects, evaluate modifications by the project to the natural hydrograph. Determine and recommend in-stream flow requirements and habitat conditions that maintain, enhance, or restore all life stages of native aquatic species, and that maintain or restore riparian resources, channel integrity, and fish passage. Provide written and timely license conditions to FERC. Coordinate relicensing projects with the appropriate state and federal agencies. (SNFPA ROD, Appendix A, RCO 2, p. A-55) For exempt hydroelectric facilities on National Forest System lands, ensure that special use permit language provides adequate in-stream flow requirements to maintain, restore, or recover favorable		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
ecological conditions for local riparian- and aquatic-dependent species. (SNFPA ROD, Appendix A, RCO 2, p. A-55)		

Table 24 Alternative A–Standards and Guidelines for RCO 3

LRMP as Amended	MSA	Proclamation
Riparian conservation objective 3		
Determine if the level of coarse large woody debris (CWD) is within the range of natural conditions in terms of frequency and distribution and is sufficient to sustain stream channel physical complexity and stability. If CWD levels are deficient, ensure proposed management activities, when appropriate, contribute to the recruitment of CWD. Burning prescriptions should be designed to retain CWD; however, short-term reductions below either the soil quality standards or standards in species management plans may result from prescribed burning within strategically placed treatment areas or the urban wildland intermix zone. (SNFPA ROD, Appendix A, RCO 3, p. A-56) In plantations within RCAs or CARs, determine if the plantation will be able to provide a sufficient supply of standing trees suitable for large wood recruitment. If there is not sufficient wood for recruitment, develop a restoration program that will provide standing trees of the appropriate size in the RCA or CAR. In developing the restoration program, ensure that proposed activities are consistent with the riparian conservation objectives. (SNFPA ROD, Appendix A, RCO 3, p. A-56)		

Alternative A—Watershed, cont'd.

Table 25 Alternative A–Standards and Guidelines for RCO 4

LRMP as Amended	MSA	Proclamation
Riparian conservation objective 4		
Within CARs, in occupied habitat or "essential habitat" as identified in conservation assessments for threatened, endangered, or sensitive species, evaluate the appropriate role, timing, and extent of prescribed fire. Avoid direct lighting within riparian vegetation; prescribed fires may back into riparian vegetation areas. Develop mitigation measures to avoid impacts to these species whenever ground-disturbing equipment is used. (SNFPA ROD, Appendix A, RCO 4, p. A-56) Use screening devices for water drafting pumps. (Fire suppression activities are exempt.) Use pumps with low entry velocity to minimize removal of aquatic species, including juvenile fish, amphibian egg masses and tadpoles, from aquatic habitats. (SNFPA ROD, Appendix A, RCO 4, p. A-56) Design prescribed fire treatments to minimize disturbance of ground cover and riparian vegetation in RCAs. In burn plans for project areas that include, or are adjacent to RCAs, identify mitigation measures to minimize the spread of fire into riparian vegetation. In determining which mitigation measures to adopt, weigh the potential harm of mitigation measures, such as fire lines, against the risks and benefits of prescribed fire entering riparian vegetation. Strategies should recognize the role of fire in ecosystem function and identify those instances where fire suppression or fuel management actions could be damaging to habitat or long-term function of the riparian community. (SNFPA ROD, Appendix A, RCO 4, p. A-56)		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
Where catastrophic events--such as drought, fire, flooding, wind, or insect damage--result in degraded stand conditions, allow salvage harvesting and fuelwood cutting in RCAs and CARs consistent with the assessment of the RCOs for the area. Ensure that present and future woody debris needs are met. (SNFPA ROD, Appendix A, RCO 4, p. A-57) Post-wildfire management activities in RCAs and CARs should emphasize enhancing native vegetation cover, stabilizing channels by non-structural means, minimizing adverse effects from the existing road network, and carrying out activities identified in landscape analyses. Post-wildfire operations shall minimize the exposure of bare soil. (SNFPA ROD, Appendix A, RCO 4, p. A-57) Allow mechanical ground-disturbing fuels treatments, hazard tree removal, salvage harvest, or commercial fuelwood cutting within RCAs or CARs when the activity is consistent with RCOs. Projects providing for public health and safety, such as the felling of hazard trees or fuel reduction activities within the defense zone of the urban wildland intermix zones, are permitted. Utilize low ground pressure equipment, helicopters, over the snow logging, or other non-ground-disturbing actions to operate off of existing roads when needed to achieve RCOs. Prior to removing trees within RCAs or CARs, determine if existing down wood is sufficient to sustain the stream channel physical complexity and stability required to maintain or enhance the aquatic- and riparian-dependent community. Ensure that existing roads, landings, and skid trails meet best management		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
practices. Minimize the construction of new skid trails or roads for access into RCAs for fuel treatments, salvage harvest, commercial fuelwood cutting, or hazard tree removal. (SNFPA ROD, Appendix A, RCO 4, p. A-57) Prior to implementing ground-disturbing activities within suitable habitat for the California red-legged frog, Cascade frog, Yosemite toad, foothill yellow-legged frog, mountain yellow-legged frog, and northern leopard frog: ● Assess and document aquatic conditions using the Pacific Southwest Region Stream Condition ● Inventory protocol, and Develop mitigation measures (such as timing of activities, limited operating seasons, avoidance) to avoid impacting these species. (SNFPA ROD, Appendix A, RCO 4, p. A-57) During fire suppression activities, consider impacts to aquatic- and riparian-dependent resources. Where possible, locate incident bases, camps, helibases, staging areas, helispots, and other centers for incident activities outside of RCAs or CARs. During presuppression planning, determine guidelines for suppression activities, including avoidance of potential adverse effects to aquatic- and riparian-dependent species as a goal. (SNFPA ROD, Appendix A, RCO 4, p. A-57) Assess roads, trails, OHV trails and staging areas, developed recreation sites, dispersed campgrounds, special use permits, grazing permits, and day use sites during landscape analysis. Identify conditions that degrade water quality or habitat for aquatic- and riparian-dependent		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
species. At the project level, determine if use is consistent with other standards and guidelines or desired conditions. If inconsistent, modify the use through redesign, rehabilitation, relocation, closure, or re-directing the use to a more suitable location. (SNFPA ROD, Appendix A, RCO 4, p. A-57)		
~~Require solid waste facilities (such as waste rock and tailings dumps) to be located outside riparian conservation areas. Where no reasonable alternative to locating these mine waste facilities in riparian conservation areas exists, locate and design them with the goal of ensuring mine waste facility stability and preventing potentially toxic releases. Ensure the following measures are applied: (1) analyze mine waste material using the best conventional sampling methods and analytical techniques to determine its chemical and physical stability characteristics; (2) locate and design mine waste facilities using best conventional techniques to ensure mass stability and prevent acid or toxic material releases; (3) ensure that reclamation and reclamation bonds are sufficient to ensure long-term chemical and physical stability of mine waste facilities; and (4) monitor mine waste facilities after operations have ceased to ensure that chemical and physical conditions are consistent with aquatic management strategy goals.~~ (SNFPA ROD, Appendix A, RCO 4, pp. A-57-58) ~~Allow saleable mineral activities, such as sand and gravel mining and extraction, in riparian conservation areas only if measures that protect the integrity of aquatic, riparian meadow ecosystems are implemented.~~ (SNFPA ROD, Appendix A, RCO 4, p. A-58)		Monument withdrawn from new mineral leases. Mineral use only to benefit Monument resources.

Alternative A—Watershed, cont'd.

Table 26 Alternative A–Standards and Guidelines for RCO5

LRMP as Amended	MSA	Proclamation
Riparian conservation objective 5		
Assess the hydrologic function of meadow habitats and other special aquatic features during range management analysis. Ensure that characteristics of special features are, at a minimum, at proper functioning condition, as defined in the appropriate technical reports: (1) "Process for Assessing PFC" TR 1737-9 (1993), "PFC for Lotic Areas" USDI TR 1737-15 (1998) or (2) "PFC for Lentic Riparian-Wetland Areas" USDI TR 1737-11 (1994). (SNFPA ROD, Appendix A, RCO 5, p. A-58) Prohibit or mitigate ground-disturbing activities that adversely affect hydrologic processes that maintain water flow, water quality, or water temperature critical to sustaining bog and fen ecosystems and plant species that depend on these ecosystems. During project analysis, survey, map, and develop measures to protect bogs and fens from such activities as trampling by livestock, pack stock, humans, and wheeled vehicles. Criteria for defining bogs and fens include, but are not limited to, presence of: (1) sphagnum moss (*Spagnum* spp.), (2) mosses belonging to the genus *Meessia*, and (3) sundew (*Drosera* spp.) Complete initial plant inventories of bogs and fens within active grazing allotments prior to re-issuing permits. (SNFPA ROD, Appendix A, RCO 5, p. A-58) Locate new facilities for gathering livestock and pack stock outside of meadows and riparian conservation areas. During landscape analysis, evaluate and consider relocating existing livestock facilities outside of meadows and riparian areas (RCA42). Prior to re-issuing grazing permits, assess the compatibility of		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
livestock management facilities located in riparian conservation areas with riparian conservation objectives. Under season-long grazing: • For meadows in early seral status: limit livestock utilization of grass and grass-like plants to 30 percent (or minimum 6-inch stubble height). • For meadows in late seral status: limit livestock utilization of grass and grass-like plants to a maximum of 40 percent (or minimum 4-inch stubble height). (SNFPA ROD, Appendix A, RCO 5, p. A-58) Determine ecological status on all key areas monitored for grazing utilization prior to establishing utilization levels. Use regional ecological scorecards and range plant list in regional range handbooks to determine ecological status. Analyze meadow ecological status every 3 to 5 years. If meadow ecological status is determined to be moving in a downward trend, modify or suspend grazing. Include ecological status data in a spatially explicit geographical information system database. (SNFPA ROD, Appendix A, RCO 5, pp. A-58-59) Under intensive grazing systems (such as rest-rotation and deferred rotation) where meadows are receiving a period of rest, utilization levels can be higher than the levels described above if the meadow is maintained in late seral status and meadow-associated species are not being impacted. Degraded meadows (such as those in early seral status with greater than 10 percent of the meadow area in bare soil and active erosion) require total		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
rest from grazing until they have recovered and have moved to mid- or late seral status. (SNFPA ROD, Appendix A, RCO 5, p. A-59) The grazing standards specified in standard and guideline FW-G04B (above) may be modified to assess the effects of grazing intensity and frequency on willow flycatcher site occupancy or demography. Such modifications must be part of a formal management study developed in cooperation with the Pacific Southwest Research Station. (SNFPA ROD, Appendix A, RCO 5, p. A-59) Limit browsing to no more than 20 percent of the annual leader growth of mature riparian shrubs (including willow and aspen) and no more than 20 percent of individual seedlings. Remove livestock from any area of an allotment when browsing indicates a change in livestock preference from grazing herbaceous vegetation to browsing woody riparian vegetation. Herd sheep away from woody riparian vegetation at all times. (SNFPA ROD, Appendix A, RCO 5, p. A-59)		

Table 27 Alternative A–Standards and Guidelines for RCO 6

LRMP as Amended	MSA	Proclamation
Riparian conservation objective 6		
Recommend and establish priorities for restoration practices in: (1) areas with compaction in excess of soil quality standards; (2) areas with lowered water tables; or (3) areas that are either actively down cutting or that have historic gullies. Identify other management practices, for example, road building, recreational use, grazing, and timber harvests that may be contributing to the observed degradation. (SNFPA ROD, Appendix A, RCO 6, p. A-59)		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
Reclaim abandoned mine sites that are degrading aquatic riparian and meadow ecosystems. First priority is to reclaim sites with hazardous or toxic substances located within CARs and RCAs. (SNFPA ROD, Appendix A, RCO 5, p. A-59)		
AMENDED by 2001 SNFPA ~~Delineate and evaluate riparian areas prior to implementing any project activity.~~ (LRMP p. 4-30) RCA widths shown in Table II.C.1 may be adjusted at the project level if a landscape analysis has been completed and a site-specific RCO analysis demonstrates a need for different widths. RCO 1, items 6 and 7. (SNFPA ROD, Appendix A, pp. A-52 and 54)	~~Delineate and evaluate riparian areas prior to implementing any project activity. [FSM 2526.03-3]~~ (MSA, Exhibit D, Standard 2, p. 2) STREAMSIDE MANAGEMENT ZONE DESIGNATION ~~Implementation: Streamside Management Zones will be established and maintained for all "streamcourses and wetlands affected by management activities. Project plans will be designed to include site-specific prescriptions for the prevention of sedimentation, stream damage, and the protection of riparian dependent species.~~ ~~Table 2 displays the appropriate Management Requirements and Constraints with respect to stream type and Class.~~ (MSA, Exhibit D, Guideline 5, pp. 5-6)	
RCO 1, items 1, 4, 5, 6 and 7.	~~Landings and non-system roads that have been put to bed, that are located within streamside management zones, and that would be inconsistent with these Riparian Standards and Guidelines, will not be reopened and reused unless the Sequoia National Forest makes a specific finding, based on a project environmental document, that using such roads or landings would cause less harm to riparian resources than building new roads and/or landings.~~ (MSA, Exhibit D, Guideline 5, pp. 5-6)	
AMENDED by 2001 SNFPA: ~~Monitor the effectiveness of the sequoia national forest riparian standards and guidelines.~~ (LRMP p. 4-30)	~~Conduct monitoring of...individual management practices, to determine how well objectives have been met and how closely management standards and guidelines have been applied~~	

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
RCO 1, items 1 and 6. RCO 2, and RCO 3. (SNFPA ROD, Appendix A, pp. A-53-56) And **Soil Hydrologic Function** Soil moisture regime is unchanged where productivity or potential natural plant communities are dependent upon specific soil drainage classes. Use natural soil drainage classes (USDA Handbook No. 18, Soil Survey Division Staff, 1993) to evaluate the effect of management induced watertable or subsurface flow changes on plant growth or potential plant community composition. (SNFPA FEIS, Appendix F, p. F-4)	~~(NFMA, NEPA, FSM 1922.7, 36 CFR 219.12k).~~ (MSA, Exhibit D, Standard 8, p. 3)	
RCO 1, items 5 and 6; RCO 2, items 1, 4 and 6; RCO 3, items 1 and 2; And Soil organic matter is maintained in amounts sufficient to prevent significant short or long-term nutrient cycle deficits, and to avoid detrimental physical and biological soil conditions. Prescribe surface organic matter in amounts that would not elevate wildfire risk or severity to the point that desired organic matter for nutrient cycling cannot be achieved or maintained because of increased wildfire risk potential. If there is no viable alternative for providing surface organic matter without elevating wildfire risk, prescribe an amount that does not significantly increase wildfire risk and monitor soil nutrient status. Apply mitigation measures if decreased nutrient supply has the potential to affect ecosystem health, diversity or productivity. The prescribed amount shall not reduce the amount needed	~~Implementation: Maintain a protective ground cover of duff, litter, plants, downed woody debris, and slash within a filter strip.~~ ~~Where percentage of ground cover resulting from management activity is below 50 percent, an interdisciplinary analysis is required to develop appropriate mitigation to negate environmental consequences. Designate stream crossings are an exception to this direction.~~ ~~Groundcover percentages in filter strips affected by management activities can be estimated by the use of photo guides. Treatments designed to increase the efficiency of this filter strip may include the establishment of living plants, introduction of litter, slash, or other treatments as identified.~~ (MSA, Exhibit D, Guideline #4, pp. 5-6)	

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
for soil cover to prevent accelerated erosion (section 2.2, paragraph 1a). Use the kinds and amounts of organic matter identified below. These may be supplemented with local analyses and adjusted to levels appropriate for specific ecological types. (1) Soil organic matter in the upper 12 inches of soil is at least 85 percent of the total soil organic matter found under natural conditions for the same or similar soils. Soil organic matter is used as an indicator of soil displacement effects on nutrient and soil moisture supply. Detrimental displacement is the loss of either 5 centimeters (2 inches) or one-half of the humus enriched top soil (A-horizon), whichever is less, from a 1 meter square area or larger. (2) Surface organic matter is present in the following forms and amounts: (a) Fine organic matter occurs over at least 50 percent of the area and is well-distributed. Fine organic matter includes plant litter, duff, and woody material less than 3 inches in diameter. The dry weight of fine organic matter without woody material is about 0.2 to 3 tons per acre. The preference is for fine organic matter to be undisturbed, but if disturbed, the quantity and quality should avoid detrimental short and long-term nutrient cycle deficits. Determine minimum organic layer thickness and distribution locally and base it on amounts sufficient to persist through winter season storms and summer season oxidation.		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
Use the presence of living vegetation that could contribute significant annual litter fall to compensate for conditions when immediate post-disturbance fine organic matter coverage is too thin or less than 50 percent. If the soil and potential natural plant community are not capable of producing fine organic matter over 50 percent of the area, adjust minimum amounts to reflect potential soil and vegetation capability. (b) Large downed woody material is a critical component of old forest wildlife habitat and in addition provides for moisture retention, and microhabitat for soil flora and fauna. The minimum amount of large woody debris required to maintain habitat and moisture supplies adequate to sustain site productivity varies by ecological type. Forests should develop reference variability for large down woody material for ecological units. Adjust the minimum logs per acre to account for ecological type potential (FSH 2090.11) and specific site needs as data becomes available, recognizing that data is currently lacking for certain eastside pine and hardwood types. In general and in areas without more specific large downed woody material requirements determined by ecological type, use the following guidelines: There should be at least 5 well-distributed logs per acre representing the range of decomposition classes (Maser et al., 1979). Desired logs are at least 20 inches in diameter and 10 feet long. Do not count logs less than 12 inches in diameter or stumps as		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
large woody material. Protect logs in decomposition classes 3 through 5 from mechanical disturbance. To alleviate the risk of adverse fire effects and wildfire, dry weight of large woody material should be less than about 3 tons per acre and dry weight of fine organic matter and large woody material together should amount to less than about 6 tons per acre except where standards and guidelines for wildlife call for more. To help meet fuel management objectives, minimum logs can be adjusted to take advantage of short-term large woody material contributions in snag recruitment areas. In areas with sufficient snags and deficient large down woody material, excess snags may be felled after prescribed burning treatment to help replenish logs lost in burning. Large woody material and fine organic matter amounts (except when needed for essential erosion control) may be reduced to meet fuel management objectives in strategic fuel treatment areas, on fuel breaks, and in other critical areas. Evaluate or monitor soil nutrient status in fuel treatment areas and other areas that lack sufficient large woody material and fine organic matter. (SNFPA FEIS, Appendix F, pp. F-3-4) **Soil buffering capacity** Do not add materials to the soil in amounts sufficient to alter soil reaction class, buffering, or exchange capacities, or microorganism populations to the degree that significantly impairs soil productivity, bioremediation potential, soil hydrologic function, or the health of humans or animals. (SNFPA FEIS, Appendix F, p. F-5)		

Alternative A—Watershed, cont'd.

LRMP as Amended	MSA	Proclamation
Meadows		
Consider meadows smaller than 2 acres as part of the riparian areas. (LRMP p. 4-30)		
AMENDED by 2001 SNFPA: ~~Develop meadow management standards and guidelines.~~ (LRMP p. 4-30) RCO 2; RCO 5. (SNFPA ROD, Appendix A, pp. A-54-55 and A-58-59)	See MEADOW HYDROLOGY (MSA, Exhibit D, Guideline #7, p. 34) FORAGE UTILIZATION ~~Implementation:~~ ~~A. Livestock will not be permitted to graze in meadows until Kentucky bluegrass heads begin to emerge; and/or Nebraska sedge flowers are almost open. (BMP 8.2)~~ ~~B. Allowable Use Factors will be established for each key meadow to assure maintenance of vegetative stability and site productivity.~~ C. Cattle will be distributed in a manner consistent with moderate forage utilization within meadows. Plant height/weight ratios will be used to monitor the results. (BMP 8.3) D. Grazing will cease in time to permit regrowth sufficient to store carbohydrates for initial spring growth (as specified in individual allottment plans). (MSA, Exhibit D, Guideline 7, p.10)	

Soil Quality

Table 28 Alternative A–Standards and Guidelines for Soil Quality

LRMP as Amended	MSA	Proclamation
Soil productivity		
a. Soil loss should not exceed the average rate of soil formation. Maintain sufficient soil cover to prevent accelerated soil erosion from exceeding the rate of soil formation. Use the California Soil Survey Committee Soil Erosion Hazard Rating system (R-5 FSH 2509.22, Ch. 50) to determine the kind, amount and distribution of soil	The Plan shall be amended to incorporate the soil quality objectives and soil quality standards set forth in the Draft FSH 2509.18 Soil Management Handbook (FSH 1989, R-S, Supp. 1) dated September 1988 (attached as appendix to Monitoring Plan) as interim direction pending finalization. Any more stringent	

Alternative A—Soil Quality, cont'd.

LRMP as Amended	MSA	Proclamation
cover necessary to avoid detrimental accelerated soil erosion. Locally adapted standard erosion models and measurements can be used to refine soil loss tolerances and effective ground cover requirements. Relevant ranges in ground cover for many ecological types can be found in regional ecological guides (R4-ECOL-99-01, R5-ECOLTP- 003 & PSW-GTR-169, R5-ECOL-TP-004). (SNFPA FEIS Appendix F, p. F-2) Prescribe the kinds and amounts of soil cover that would not elevate wildfire risk or severity to the point that fuel management and soil quality objectives cannot be met. If there is no viable alternative for providing soil cover without elevating the risk of adverse wildfire effects, prescribe minimum soil cover needed to avoid detrimental soil loss. (SNFPA FEIS, Appendix F, p. F-2) b. Soil porosity should be at least 90 percent of total porosity found under natural conditions. A 10 percent reduction in total soil porosity corresponds to a threshold soil bulk density that indicates detrimental soil compaction. Measure initial soil porosities within an activity area where there is a potential for soil compaction to occur. For post-activity assessment, measure adjacent uncompacted areas. Compare threshold porosity with post-activity porosity in the rooting zone between 6 and 10 inches below the soil surface to evaluate the potential for detrimental soil compaction. **Soil strength, infiltration, or other alternative measures of detrimental compaction:** Recent scientific studies within the project area also indicate that soil strength	standard set forth in the Plan or the Agreement shall govern. The Plan shall also be amended to include the following standards to protect forest soils: (a.) Site preparation measures will be devised to retain substantial ground cover and still reduce the risk of catastrophe fires. (b.) Silvicultural prescription shall be designed to main" soil organic matter and provide for the continual recruitment of coarse woody debris. (c.) After site prep, as much organic material as possible shall be left on the ground for sod protection, consistent with fire protection, wildlife, reforestation and other resource needs as specified in project NEPA document. (d.) Jackpot burning, gross yarding, and/or lop-and-scatter shall be evaluated as alternatives to broadcast burning as a means of reducing slash and for site preparation. These options shall be discussed in each timber sale EA or EIS. Consistent with reduction of clearcutting and other appropriate considerations, the Forest Service shall reduce the amount of broadcast burning on the forest. (e.) Where broadcast burning is prescribed, the environmental documentation and decision notice shall include documentation of specific-justification for the practice. The prescription shall have an objective of leaving ground cover commensurate with the erosion potential of each specific site. Slope will be considered within the site analysis. Each broadcast burn shall be monitored to determine whether the prescribed ground cover objective has been met, and the monitoring results shall be included in the annual report required by the monitoring plan and five year renew	

Alternative A—Soil Quality, cont'd.

LRMP as Amended	MSA	Proclamation
measured with a cone penetrometer is a useful indicator of detrimental compaction (Powers 2000, personal communication; Powers and Fiddler 1997). It is recommended that soil strength be measured early in the growing season when soils are at or near field capacity. Comparisons between disturbed and undisturbed soils need to be made while soil moisture conditions are similar. Alternatively, soil strength can be monitored throughout the growing season to detect changes in potential growing season brought on by compaction. An increase of greater than 500 kPa between disturbed and undisturbed sites is considered detrimental soil disturbance. The 6-10-inch zone is recommended as the most sensitive zone for measuring soil strength based on recent research experience. Potential exists for developing correlations between infiltration and porosity and then using infiltration to determine detrimental compaction, such as the rangeland condition work being done in Region 4. Forests are encouraged to develop local guidelines following standard scientific method and peer review for soil strength, infiltration, or other alternative measures of detrimental soil compaction, before substituting them for porosity measurements. (SNFPA FEIS, Appendix F, p. F-3) c. **Organic matter** is maintained in amounts sufficient to prevent significant short or long-term nutrient cycle deficits, and to avoid detrimental physical and biological soil conditions. Prescribe surface organic matter in amounts that would not elevate wildfire risk or severity to the point that desired organic matter for	sections described in the MSA. (MSA pp. 128-130)	

Alternative A—Soil Quality, cont'd.

LRMP as Amended	MSA	Proclamation
nutrient cycling cannot be achieved or maintained because of increased wildfire risk potential. If there is no viable alternative for providing surface organic matter without elevating wildfire risk, prescribe an amount that does not significantly increase wildfire risk and monitor soil nutrient status. Apply mitigation measures if decreased nutrient supply has the potential to affect ecosystem health, diversity or productivity. The prescribed amount shall not reduce the amount needed for soil cover to prevent accelerated erosion (section 2.2, paragraph 1a). Use the kinds and amounts of organic matter identified below. These may be supplemented with local analyses and adjusted to levels appropriate for specific ecological types. (1) Soil organic matter in the upper 12 inches of soil is at least 85 percent of the total soil organic matter found under natural conditions for the same or similar soils. Soil organic matter is used as an indicator of soil displacement effects on nutrient and soil moisture supply. Detrimental displacement is the loss of either 5 cm (2 inches) or one-half of the humus enriched top soil (A-horizon), whichever is less, from a 1 meter square area or larger. (2) Surface organic matter is present in the following forms and amounts. (a) Fine organic matter occurs over at least 50 percent of the area and is well distributed. Fine organic matter includes plant litter, duff, and woody material less than 3 inches in diameter. The dry weight of fine organic matter without woody material is about 0.2 to 3 tons per acre.		

Alternative A—Soil Quality, cont'd.

LRMP as Amended	MSA	Proclamation
The preference is for fine organic matter to be undisturbed, but if disturbed, the quantity and quality should avoid short and long-term nutrient cycle deficits. Determine minimum organic layer thickness and distribution locally and base it on amounts sufficient to persist through winter season storms and summer season oxidation. Use the presence of living vegetation that could contribute significant annual litter fall to compensate for conditions when immediate post-disturbance fine organic matter coverage is too thin or less than 50 percent. If the soil and potential natural plant community are not capable of producing fine organic matter over 50 percent of the area, adjust minimum amounts to reflect potential soil and vegetation capability. (b) Large downed woody material is a critical component of old forest wildlife habitat and in addition provides for moisture retention, and microhabitat for soil flora and fauna. The minimum amount of large woody debris required to maintain habitat and moisture supplies adequate to sustain site productivity varies by ecological type. Forests should develop reference variability for large down woody material for ecological units. Adjust the minimum logs per acre to account for ecological type potential (FSH 2090.11) and specific site needs as data becomes available, recognizing that data is currently lacking for certain eastside pine and hardwood types. In general and in areas without more specific large downed woody material requirements determined		

Alternative A—Soil Quality, cont'd.

LRMP as Amended	MSA	Proclamation
by ecological type, use the following guidelines: There should be at least 5 well-distributed logs per acre representing the range of decomposition classes (Maser et al., 1979). Desired logs are at least 20 inches in diameter and 10 feet long. Do not count logs less than 12 inches in diameter or stumps as large woody material. Protect logs in decomposition classes 3 through 5 from mechanical disturbance. To alleviate the risk of adverse fire effects and wildfire, dry weight of large woody material should be less than about 3 tons per acre and dry weight of fine organic matter and large woody material together should amount to less than about 6 tons per acre except where standards and guidelines for wildlife call for more. To help meet fuel management objectives, minimum logs can be adjusted to take advantage of short-term large woody material contributions in snag recruitment areas. In areas with sufficient snags and deficient large down woody material, excess snags may be felled after prescribed burning treatment to help replenish logs lost in burning. Large woody material and fine organic matter amounts (except when needed for essential erosion control) may be reduced to meet fuel management objectives in strategic fuel treatment areas, on fuel breaks, and in other critical areas. Evaluate or monitor soil nutrient status in fuel treatment areas and other areas that lack sufficient large woody material and fine organic matter. (SNFPA FEIS, Appendix F, pp. F-3-4)		
Soil hydrologic function		
Soil Moisture Regime is unchanged where productivity or potential natural plant community are		

Alternative A—Soil Quality, cont'd.

LRMP as Amended	MSA	Proclamation
dependent upon specific soil drainage classes. Use natural soil drainage classes (USDA Handbook No. 18, Soil Survey Division Staff, 1993) to evaluate the effect of management induced watertable or subsurface flow changes on plant growth or potential plant community composition.		
Soil buffering capacity		
Do not add materials to the soil in amounts sufficient to alter soil reaction class, buffering or exchange capacities, or microorganism populations to the degree that significantly impairs soil productivity, bioremediation potential, soil hydrologic function, or the health of humans or animals.		

Geology and Minerals

Table 29 Alternative A–Standards and Guidelines for Minerals and Geology

LRMP as Amended	MSA	Proclamation
Minerals and geology		
Evaluate requests for ~~leaseable minerals and~~ mineral material on project basis before authorizing users. Ensure that these activities can be conducted in an environmentally sound manner and that they are integrated with the planning and management of other ~~national forest~~ resources. (LRMP p. 4-36)		All federal lands and interest in lands within the boundaries of this Monument are hereby appropriated and withdrawn from...locating, entry and patent under the mining laws and from disposition under all laws relating to mineral and geothermal leasing, other than by exchange that furthers the protective purposes of the Monument.(1)
Include provisions to minimize adverse environmental impacts to surface resources in operating plans (36 CFR 228). Upon the completion of any mineral activities on the forest provisions will be made for the timely reclamation of disturbed area with the ultimate goal being full surface production and use of land. (LRMP p. 4-36)		All federal lands and interest in lands within the boundaries of this Monument are hereby appropriated and withdrawn from...locating, entry and patent under the mining laws and from disposition under all laws relating to mineral and geothermal leasing, other than by exchange that furthers the protective purposes of the Monument.

1. There are no mineral leases and no valid existing mining claims in the Monument.

Alternative A—Minerals and Geology, cont'd.

LRMP as Amended	MSA	Proclamation
Complete geologic resource inventory to order 3 standards. (LRMP p. 4-36)		
~~Seek resolution of situations where activities questionably based on the 1872 mining law conflict with management needs.~~ (LRMP p. 4-36)		All federal lands and interest in lands within the boundaries of this Monument are hereby appropriated and withdrawn from...locating, entry and patent under the mining laws...
~~Review all withdrawals to meet the bureau of land management schedule. Priorities will be coordinated by the regional office.~~ (LRMP p. 4-36)		All Federal lands and interest in lands within the boundaries of this Monument are hereby appropriated and withdrawn from...locating, entry and patent under the mining laws...
Utilize care where valid existing rights are exercised in withdrawn areas to insure the integrity of the area for the purpose for which the area is withdrawn. (LRMP p. 4-36) NOTE: There are no valid existing rights (mining claims) in the Monument.		All federal lands and interest in lands within the boundaries of this Monument are hereby appropriated and withdrawn from...locating, entry and patent under the mining laws...

Human Use, including Recreation, Scenery, and Socioeconomics

Table 30 Alternative A–Standards and Guidelines for General Use and Law Enforcement

LRMP as Amended	MSA	Proclamation
General		
Projects will be started only after following and completing the NEPA requirements. (LRMP p. 4-16)		
Contact public land agencies to coordinate management activities. (LRMP p. 4-16)		
Contact will be made with organizations or groups where proposed actions could affect the management of private lands so that actions can be coordinated and mitigation provided if appropriate. (LRMP p. 4-16)		
Search and rescue		
Provide assistance as requested by the sheriff in search and rescue operations.		

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
Enforcement		
Emphasize coordination with local law enforcement agencies and intensive violation prevention programs.		
Urban intermix areas		
Manage viewshed as sensitivity level 1 with adjustments based on project-level EA. (LRMP p. 4-26)		
Rural community and human resources		
Meet human and community needs where feasible by providing employment and training opportunities, particularly for the elderly, disadvantaged, and minority communities. Volunteers and other human resource programs will help accomplish planned work while meeting budget constraints. (LRMP p. 4-36)		
Provide where feasible an environment that promotes the active participation of all segments of the public in the management of the forest. a. Promote the use of symbol signing for the hearing impaired. b. Use bilingual personnel, brochures, and signing in areas heavily used by the hispanic community. (LRMP pp. 4-36 and 37)		
Ensure over time that forest service facilities are responsive to the design needs of the physically challenged. (LRMP p. 4-37)		
Ensure that federally conducted and assisted programs administered by the Forest Service (including contracting opportunities and special-use permits) are responsive to the needs of minority groups. (LRMP p. 4-37)		

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

Table 31 Alternative A–Standards and Guidelines for Recreation—General, Developed, and Dispersed

LRMP as Amended	MSA	Proclamation
General recreation		
Recreation opportunity spectrum ROS: Manage the forest to provide recreation opportunities within the parameters established by each ROS class. Follow the "Recreation Opportunity Spectrum User's Guide" to determine the applicable activities, physical settings, and recreation experiences for each ROS class. The ROS classes are: ● P-Primitive ● SPNM- Semi-primitive nonmotorized ● SPM- Semi-primitive motorized ● RN- Roaded natural ● R-Rural ● U-Urban (LRMP p. 4-16)		
Develop special management direction to deal with exceptionally heavy recreation use in areas such as Hume Lake, the lower Tule River canyon, and the Lloyd Meadow area. (LRMP p. 4-16)		
Review and participate in the preparation or state recreation plans. (LRMP p. 4-16)		
Maintain interpretive plan for the forest. (LRMP p. 4-16)		
Provide basic information about recreation opportunities on the forest through publications. (LRMP p. 4-16)		
Continue coordination with the National Park Service to help facilitate users and management activities for the benefit of park resources (e.g., permit issuance for park backcountry users where access begins on the national forest. (LRMP p. 4-17)		

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
General developed recreation sites		
Manage vegetation to maintain or improve recreation values. (LRMP p. 4-17)		
Pursue development of the peppermint mountain resort as detailed in the final environmental impact statement. (LRMP p. 4-17)		
Study the feasibility of constructing either Mitchell-Maddox or Sherman Pass ski areas with potential development of one in decade two with expansion in decade three manage these areas to maintain options for future development. (LRMP p. 4-17)		
Emphasize day use opportunities (e.g., overlooks, interpretive signing) to complement existing facilities. (LRMP p. 4-17)		
Consider elderly and handicapped standards during construction rehabilitation and reconstruction of facilities.(LRMP p. 4-17)		
Manage existing destination sites to complement dispersed activities. (LRMP p. 4-17)		
Increase occupancy through extended seasons. An objective will be to increase recreation visitor days (RVDs) by an estimated 10 percent). (LRMP p. 4-17)		
Rehabilitate developed sites on an average 20year cycle using established forest priority lists. (LRMP p. 4-17)		
Maintain fee sites at standard level and non-fee sites at ~~less than~~ standard level over time ~~move the non-fee sites toward standard level with an objective to obtain about 50 percent shift during the first decade~~. (LRMP p. 4-17)[1]		
Continue the pack-in pack-out policy in lightly used recreation areas. (LRMP p. 4-17)		

1. Current national direction is to manage all sites to standard.

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
Evaluate potentials and take opportunities to convert small under-utilized camp and picnic sites to undeveloped occupancy spots. (LRMP p. 4-17)		
Emphasize expansion of existing water-oriented sites where use dictates resource protection and average utilization exceeded 40 percent of theoretical capacity. (Apply maximum 10 percent increase, or 600 persons-at-one-time [PAOT] each decade). (LRMP p. 4-17)		
Develop new sites during first and second decade only where new water developments and/or licensing actions occur or to facilitate wilderness access. (An objective is an estimated 5 percent or 300 PAOT increase). (LRMP p. 4-17)		
Manage potential developed sites during the first decade to maintain values for future development. (LRMP p. 4-17)		
~~Develop barrier free interpretive trails with emphasis at Indian Basin near Princess campground, Hume Lake District and Redwood Campground, Hot Springs District during the first decade.~~ (LRMP p. 4-18) NOTE: Tasks completed		
Management emphasis 1–general dispersed recreation		
Build and manage new facilities to enhance dispersed recreation opportunities. (LRMP pp. 4-43 and 51)		
Perpetuate large tree cover and revegetate openings when any developed recreation site is capable of growing trees. (LRMP pp. 4-43 and 51)		
ROS **PAOT/ACRE** ● SPNM 7 ● SPM 9 ● RN 13 ● R 17 (LRMP pp. 4-43 and 46)		

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
ROS capacity guidelines for developed sites: **ROS PAOT/ACRE** ● P 5 ● SPNM 7 ● SPM 9 ● RN 13 ● R 17 (emphasis on SPNM and SPM) (LRMP p. 4-51)		
Management emphasis 2–water-oriented recreation		
Develop picnic grounds and campgrounds when need increases in the priority listed: a. Rehabilitate existing b. Expand existing c. Develop new. Emphasis RN and R areas. (LRMP pp. 4-54, 56, and 59)		
Develop programs and methods of presentation for interpretive services (beyond self-service levels) at key selected locations in semi-primitive motorized areas. Observation sites will be stressed in SPM areas. (LRMP pp. 4-54 and 59)		
Perpetuate large tree cover and re-vegetate openings when any developed recreation site is capable of growing trees. (LRMP pp.4-54, 56, and 59)		
ROS capacity guidelines for developed sites: **ROS PAOT/ACRE** ● SPM 9 ● RN 13 ● R 17 (emphasis on SPM and RN) (LRMP pp. 4-54, 57, and 59)		
Establish system trails that provide for access between developed facilities and water/streamside. (LRMP pp. 4-54 and 57)		

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
Manage developed sites to increase dispersed recreation opportunities. (LRMP pp. 4-54, 57, and 59)		
Design new constructed or reconstructed facilities to a standard conducive to recreational type vehicles. (LRMP pp. 4-54 and 59)		
Establish system trails which provide for safe access between developed facilities and water/streamside. (LRMP p. 4-59)		
Management emphasis 3–developed recreation		
Develop picnic grounds and campgrounds as the need increases in the priority listed: a. Rehabilitate existing b. Expand existing c. Develop new. (LRMP p. 4-61)		
Perpetuate large tree cover and revegetate openings when any developed recreation site is capable of growing trees. (LRMP p. 4-61)		
ROS capacity guidelines for developed sites: **ROS PAOT/ACRE** ● SPNM 7 ● SPM 9 ● RN 13 ● R 17 (emphasis on SPM, RN, R) (LRMP p. 4-62)		
Provide for issuance of new permits for expansion of existing ski area (Shirley Meadow) and for new ski areas. (LRMP p. 4-62)[2]		
Manage developed recreation facilities to minimize dispersed use impacts within the MIZs. (LRMP p. 4-62)		
Do not locate new recreation sites where fish habitat cannot be adequately protected. (LRMP p. 4-62)		

2. Shirley Meadow is outside the Monument.

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
Management emphasis 4–wilderness		
Limit the amount and kind of primitive structural campsite improvements. (LRMP p .4-64)		
Management emphasis 5~~–wildlife and~~ dispersed recreation		
Build and manage new facilities to enhance dispersed recreation opportunities. (LRMP p. 4-66)		
Perpetuate large tree cover and revegetate openings when any developed recreation site is capable of growing trees. (LRMP pp. 4-66 and 74)		
ROS capacity guidelines for developed sites: **ROS PAOT/ACRE** ● SPNM 7 ● SPM 9 ● RN 13 ● R 17 (LRMP p. 4-66)		
Develop new facilities to enhance dispersed recreation opportunities. (LRMP p. 4-68)		
ROS capacity guidelines for developed sites: **ROS PAOT/ACRE** ● SPNM 7 ● SPM 9 ● RN 13 ● R 17 (emphasis on SPNM and SPM) (LRMP p. 4-69)		
ROS capacity guidelines for developed sites: **ROS PAOT/ACRE** ● P 5 ● SPNM 7 ● SPM 9 ● RN 13 ● R 17 (emphasis on SPNM and SPM) (LRMP p. 4-74)		

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
Limit new development to RN areas where key wildlife habitat will not be affected (LRMP p. 4-74).		
Develop new facilities which increase dispersed recreation opportunities and are located at least one-quarter mile from meadows. (LRMP p. 4-74)		
Dispersed recreation management		
Emphasize pack-in pack-out policy. (LRMP p. 4-18)		
Provide for variety of dispersed uses including both summer and winter activities consistent with resource protection and maintaining recreation opportunities. (LRMP p. 4-18)		
Emphasize opportunities for increasing dispersed recreation. (LRMP p. 4-18)		
Manage heavier used dispersed areas (e.g. Kern River and off-highway vehicle use areas on the plateau) at the standard level. (LRMP p. 4-18)		
Identify and respond to potential problems created by target shooting with the objective to minimize user conflicts. (LRMP p. 4-18)		
Utilize ~~less than~~ standard level management in lightly used areas including wilderness. (LRMP p. 4-18)[3]		
Provide sanitation facilities in the areas of or during periods of concentrated use where either increased management presence or resource protection is necessary and/or potential development exists for which a specific site plan is prepared. (LRMP p. 4-18)		
Management emphasis 1–general dispersed recreation		
Increase opportunities for public enjoyment and benefits with emphasis on OHV use, hiking, equestrian use, fishing, hunting, and viewing. (LRMP p. 4-43)		

3. National direction is to manage all sites to standard.

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
ROS capacity guidelines for all activities: **ROS PAOT/ACRE** • SPNM .055 • SPM .80 • RN 2.00 • R 3.50 (LRMP p. 4-43)		
Increase opportunities for public enjoyment and benefits with emphasis on OHV use, hiking, equestrian use, and viewing as primary activities. (LRMP p. 4-46)		
ROS capacity guidelines for all activities: **ROS PAOT/ACRE** • SPNM .01 • SPM .80 • RN 1.50 • R 3.00 (emphasis on SPNM and SPM) (LRMP p. 4-46)		
Increase opportunities for public enjoyment and benefits with emphasis on hiking, equestrian use, cross-country skiing and trail camping in nonmotorized areas; and OHV (including oversnow vehicles), driving for pleasure, and viewing in motorized areas. (LRMP p. 4-51)		
ROS capacity guidelines for all activities: **ROS PAOT/ACRE** • P .03 • SPNM .055 • SPM .80 • RN 2.30 • R 3.75 (LRMP p. 4-52)		
Management emphasis 2–water-oriented recreation		
Develop and manage opportunities for increasing public enjoyment and benefits with emphasis on driving		

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
for pleasure and viewing scenery in rural class areas. (LRMP pp. 4-54, 57, and 59)		
ROS capacity guidelines for all activities: **ROS PAOT/ACRE** ● SPM .80 ● RN 2.00 ● R .50 (emphasize SPM and RN) (LRMP p. 4-55)		
ROS capacity guidelines for all activities: **ROS PAOT/ACRE** ● SPM .80 ● RN 2.00 ● R 3.50 (emphasize SPM and RN) (LRMP p. 4-57)		
ROS capacity guidelines for all activities: **ROS PAOT/ACRE** ● SPM .80 ● RN 1.50 ● R 3.00 (emphasis on SPM and RN) (LRMP p. 4-60)		
Management emphasis 3–developed recreation		
Develop and manage opportunities for increasing public enjoyment and benefits. (LRMP p. 4-62)		
ROS capacity guidelines for all activities: **ROS PAOT/ACRE** ● P .03 ● SPNM .005 ● SPM .80 ● RN 2.30 ● R 3.75 (emphasis on SPM, RN, R) (LRMP p. 4-62)		

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
Management emphasis 4–wilderness		
Permit camping within 100 feet of live streams only when terrain does not allow appropriate space further away. (LRMP p. 4-64)		
Management emphasis 5~~–wildlife and~~ dispersed recreation		
Increase opportunities for increasing public enjoyment and benefits with emphasis on hiking, equestrian use, fishing, hunting, and viewing. (LRMP p. 4-66)	Increase opportunities for public enjoyment and benefits. (MSA pp. 104-105)	
ROS capacity guidelines for all activities: **ROS PAOT/ACRE** ● SPNM .055 ● SPM .80 ● RN 2.00 ● R 3.50 (LRMP p. 4-67)		
Increase opportunities for public enjoyment and benefits with emphasis on hiking, hunting, equestrian use, and viewing. (LRMP p. 4-69)	Increase opportunities for public enjoyment and benefits. (MSA pp. 104-105)	
ROS capacity guidelines for all activities: **ROS PAOT/ACRE** ● SPNM .01 ● SPM .80 ● RN 1.50 ● R 3.00 (emphasis on SPNM and SPM) (LRMP p. 4-69)		
~~Increase opportunities for public enjoyment and benefits with emphasis on equestrian use, fishing, hiking, cross-country skiing and trail camping in nonmotorized areas; and driving for pleasure and viewing in motorized areas.~~ (LRMP p. 4-74)	Increase opportunities for public enjoyment and benefits. (MSA pp. 104-105)	

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
ROS capacity guidelines for all activities: **ROS** **PAOT/ACRE** • P .03 • SPNM .055 • SPM .80 • RN 2.30 • R 3.75 (emphasis on SPNM and SPM) (LRMP p. 4-75)		
Winter snow dispersed recreation		
Permit both wheeled ATVs and tracked over-snow vehicles to travel cross-country on snow throughout the Sequoia National Forest except where closed by law, wilderness, and PCT, or by forest supervisor order to prevent resource damage facility damage and/or user conflicts. (LRMP p. 4-20)		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.
Manage over-snow vehicles and cross-country ski opportunities recognizing the need for segregating conflicting uses. (LRMP p. 4-20)		
Explore development of commercial opportunities such as overnight/hut system for winter activities. (LRMP p. 4-20)		
Undertake planning effort to identify the specifics of winter recreation activities including motorized and non-motorized uses. (LRMP p. 4-20)		
Non-motorized (e.g., horses, hikers—non-mechanized)		
Keep open the entire planning area. (LRMP p. 4-20)		
Establish and maintain public pastures to enhance overnight camping opportunities. (LRMP p. 4-20)		
	Cross-country travel may be restricted to prevent resource damage. (MSA p. 107)	

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
Water-oriented use		
Whitewater floating: a. Continue implementation of Kern River Whitewater Floating Management Plan until revised as part of the Kern River Wild and Scenic Management Plan. b. Develop and implement Kings River Whitewater Floating Management Plan as part of the Kings River Special Management Area Plan in cooperation with the Sierra National Forest. (LRMP p. 4-21)		
North Fork Kern River: a. Lloyd Meadows Road: designate and manage sites for day and overnight use including regulated parking during the managedseason throughout the first decade. (LRMP p. 4-21)		
Maintain current mix of dispersed/ developed, night/day use along the Tule river. (LRMP p. 4-21)		
Hume Lake area: a. Emphasize development of facilities to enhance dispersed day use recreation; expand no overnight facilities. b. ~~Complete recreation action plan for the Hume lake basin during the first decade.~~ (LRMP p. 4-21) NOTE: Task complete.		
Wild and scenic rivers		
Manage rivers in accordance with the final legislation on wild and scenic river designation. (LRMP p. 4-21)		
~~Prepare river management plan for each designated river or special Management area including final boundary descriptions.~~ (LRMP p. 4-21)		
~~Classify the national forest segments of designated rivers at their highest eligible level~~ (refer to LRMP FEIS appendix E). (LRMP p. 4-21) NOTE: Task complete.		

Alternative A—Human Use, including Recreation, Scenery, and Socioeconomics, cont'd.

LRMP as Amended	MSA	Proclamation
Office of information and interpretive services		
Provide educational and user services to assist resource management programs to maintain outputs to resolve management problems and to change visitor behavior. (LRMP p. 4-22)		
Provide for and maintain present facilities and programs at high level emphasizing self-service. These include recreation site and trailhead bulletin boards, publications, media releases, and self-service information stations. (LRMP p. 4-22)		
Provide other programs and facilities at moderate level. These include 7-day seasonal information desks, resource management interpretive signs, three-forest interpretive association (3FIA) programs, exhibits, interpretive trails, outdoor programs, and self-guided auto tours. Use specialized media to promote dispersed use. (LRMP p. 4-22)		

Off-Highway Vehicle Use

Table 32 Alternative A–Standards and Guidelines for Recreational Off-Highway Vehicle Use

LRMP as Amended	MSA	Proclamation
Wheeled off-highway vehicles (OHVs) (including mountain bikes)		
Study use and develop monitoring plan to identify and resolve conflicts between mountain bikes and other users. (LRMP p. 4-18)		
Wheeled vehicles Allow wheeled vehicle travel on designated routes~~, trails, and off-highway vehicle (OHV) areas~~. Each national forest may designate where OHV use is allowed. Unless otherwise restricted by existing forest plans or other area-specific standards and guidelines~~, allow cross-country travel by over snow vehicles~~. (SNFPA ROD Appendix A, p. A-32)		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.

Alternative A—Off-Highway Vehicle Use, cont'd.

LRMP as Amended	MSA	Proclamation
OHVs may be used on designated routes on the sequoia national forest except where closed by law (i.e. wilderness and pacific crest trail) or by Forest supervisor order to prevent: a. Resource damage (e.g. soil compaction, vegetation damage, wildlife disturbance, fire). b. Facility damage (e.g. roads, trails, signs, fences) and c. User conflicts (e.g. motorized and non-motorized use) to maintain specific recreation opportunities/experiences. (LRMP p. 4-18)		
OHVs are legitimate uses of the national forest the forest will increase opportunities for OHV vehicles through development of OHV trail facilities. Areas of OHV emphasis are identified and are displayed on the accompanying map these are areas of the national Forest towards which ohv use will be directed and management priority placed accommodating/ administering this activity this will not preclude ohv use in other areas of the forest nor will it preclude non-OHV use within the emphasis area rather managers will direct priorities in trail designation construction, public information, etc. toward emphasis areas as a way to draw users from other areas. User accountability via signing maps and other user education and cooperative actions in concert with other forest management activities will be emphasized. OHV planning and management will be coordinated with federal state and local agencies adjacent landowners and other interested individuals and organizations. Monitoring of the effects of OHV use will be undertaken the forest OHV plan will be revised and implemented consistent with the management		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.

Alternative A—Off-Highway Vehicle Use, cont'd.

LRMP as Amended	MSA	Proclamation
~~objectives or the forest Plan.~~ (LRMP pp. 4-18 and 19)		
~~Following are vehicle use zones:~~ ~~Zone A: closed (estimated 264000 acres).Areas permanently closed to all motorized/mechanized vehicles- Wilderness and pacific crest trail (PCT)~~ ~~Zone B: restricted (estimated 855000 acres).Approximately 71,000 acres of this total are to be managed as SPNM. Therein there are no designated routes in these areas.~~ (LRMP p. 4-19)		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.
Wheeled vehicle use, including OHVs, is limited to designated routes only subject to: a. Seasonal or permanent restrictions to prevent resource damage, facility damage and/or user conflicts. b. ~~Incidental access off designated routes or system roads if provided by permit (e.g. firewood gathering mining activities, access to permitted facilities.~~ c. ~~Incidental access to dispersed area camp locations immediately adjacent to system roads (e.g. generally within 200 feet where no resource damage occurs) and~~ d. Specific restriction as to type of vehicle on certain facilities (e.g. 2-, 3-, or 4-wheels or other design criteria). (LRMP p. 4-19)		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.
~~Obtain public involvement whenever changes to the OHV management action Plan are necessary based on trail standards and guidelines.~~ (LRMP p. 4-19)		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.

Alternative A—Off-Highway Vehicle Use, cont'd.

LRMP as Amended	MSA	Proclamation
Enforce state laws for noise control the use of approved spark arresters and green stacker registration as part of overall OHV administration activities. (LRMP p. 4-19)		
~~Use location and design criteria for OHV trails that will hold down the speed of vehicles.~~ (LRMP p. 4-19)		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.
~~Consistent with the forest plan identify (in cooperation with the state other agencies and user groups) opportunities to develop segments of trail that support the concept of statewide trail system. An objective of this system is to connect use areas and provide opportunities for long distance trail touring.~~ (LRMP p. 4-20)		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.
	~~Forest Trail Plan:~~ a. ~~4WD trails;~~ b. ~~Open riding and compensation credit;~~ c. ~~Trail plan involvement~~ (MSA pp. 102-104)	Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.
Management emphasis 1–general dispersed recreation		
~~Emphasize providing and maintaining a comprehensive network of OHV trails in Roaded Natural ROS class areas.~~ (LRMP p. 4-43)		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons

Alternative A—Off-Highway Vehicle Use, cont'd.

LRMP as Amended	MSA	Proclamation
		with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.
~~Emphasize providing and maintaining a comprehensive network of OHV trails.~~ (LRMP p. 4-46)		Motorized vehicle use will be permitted only on designated roads, and non-motorized mechanized vehicle use will be permitted only on designated roads and trails, except for emergency or authorized administrative purposes or to provide access for persons with disabilities. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.
Management emphasis 2–water-oriented recreation		
~~Direct OHV use to areas away from concentrations of people (e.g., campgrounds and other heavily used areas).~~ (LRMP p. 4-55 and 57)		Motorized vehicle use will be permitted only on designated roads.
~~Direct OHV use to more suitable areas away from concentrations of people (e.g., campgrounds and other heavily used areas).~~ (LRMP p. 4-60)		Motorized vehicle use will be permitted only on designated roads.
Management emphasis 3–developed recreation		
~~Direct OHV use to areas away from concentrations of people (e.g., campgrounds).~~ (LRMP p. 4-62)		Motorized vehicle use will be permitted only on designated roads.
Management emphasis 5~~–wildlife and~~ dispersed recreation		
~~Manage OHV use by location and period of use based on wildlife needs (e.g., excluding OHVs from key areas during fawning and nesting).~~ (LRMP p. 4-67, 69, and 75)	Manage recreation activities by location and period of use based on wildlife needs (e.g., excluding incompatible use from key areas during fawning and nesting).	

Trails

Table 33 Alternative A–Standards and Guidelines for Trails Management

LRMP as Amended	MSA	Proclamation
Trails		
Allow changes and increases to the existing trail system on the forest (new trail construction). Project-specific EAs will be used to determine if some new trails need to be constructed in popular areas		No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.

Alternative A—Trails, cont'd.

LRMP as Amended	MSA	Proclamation
to possibly replace trails causing resource and facility damage and/ or receiving low use. These types of trails will be abandoned to prevent user conflicts and/or to meet other needs. (LRMP pp. 4-23 and 24)		
Maintain, relocate, or reconstruct 50 percent of the trail system ~~during the first decade~~. Emphasize preventing resource damage, including signs to facilitate use. (LRMP p. 4-24)		No new…trails will be authorized within the Monument except to further the purposes of the Monument.
Maintain trails consistent with ROS concepts at levels determined by the trail system analysis procedures, with priority given to dispersing users and preventing further deterioration of the resources. (LRMP p. 4-24)		
Develop and maintain trail/transportation system that emphasizes loop trails. (LRMP p. 4-24)		
Enhance present opportunities by emphasizing management actions that will link campground and other sites to existing trails, tie trails together to create loops and multi-day opportunities, and resolve user conflicts (through designation or design to serve the needs of different trail users). Accessing new (not currently accessed) areas will be lower in priority than the above actions. (LRMP p. 4-24)		
Maintain system trails to minimize trail degradation and to protect off-site resources.(LRMP p. 4-24)		
Undertake trail system planning to provide comprehensive look at and identify specifics of all uses (e.g., hiking, equestrian, OHV). (LRMP p. 4-24)		The Management Plan shall contain a transportation plan for the Monument that provides for visitor enjoyment and understanding about the scientific and historic objects in the Monument, consistent with their protection.
Implement mitigation measures in all projects posing an impact on the long-term forest trail system. Measures will include such items as signing, protection, or visual quality		

Alternative A—Trails, cont'd.

LRMP as Amended	MSA	Proclamation
values; rehabilitation of trails following project completion; and/or relocation of trails around areas where impacts dictate. Timing will be such that user inconvenience is minimized. (LRMP p. 4-24)		
Manage the Pacific Crest Trail (PCT) in accordance with Secretary of Agriculture guides and standards, and the regional approved management Plan. (LRMP p. 4-24) NOTE: The PCT is not located in the Monument.		
Relocate system trails out of meadows where unacceptable damage is occurring. (LRMP p. 4-24)		
Management emphasis 1–general dispersed recreation		
Maintain and develop trails to meet user needs and protect resource values. (LRMP pp. 4-43, 46, and 51)		
Management emphasis 2–water-oriented recreation		
Maintain and develop trails to meet user needs and protect resource values. (LRMP, pp. 4-54, 57, and 59)		
Management emphasis 3–developed recreation		
Retain and maintain trails to protect resource values. (LRMP p. 4-62)		
Management emphasis 4–wilderness		
Develop loop trails. (LRMP p. 4-64)		
Management emphasis 5~~–wildlife and~~ dispersed recreation		
Maintain and develop trails to meet user needs and protect resource values. (LRMP pp. 4-66, 69, and 74)		

Wilderness

Table 34 Alternative A–Standards and Guidelines for Wilderness Management

LRMP as Amended	MSA	Proclamation
Wilderness		
Manage the Golden Trout Wilderness within the framework established by the approved interim wilderness management plan. (LRMP p. 4-24)		

Alternative A—Wilderness, cont'd.

LRMP as Amended	MSA	Proclamation
Prepare wilderness management plans for the Sequoia National Forest portions of areas designated wilderness by the 1984 California act (e.g., Monarch and Jennie Lakes Wilderness Areas). Planning will be coordinated with adjacent forests or agencies. Continue current management actions pending completion and approval of management plans. (LRMP, pp. 4-24 and 25)		
Use prescribed fire to enhance wilderness values (e.g., long-term plant diversity) in all wilderness areas in locations and under conditions described in wilderness management plans. (LRMP p. 4-25)		
Use confine or contain suppression strategy for wildfire when public safety will not be compromised, adjacent resources can be protected, and other management constraints (air quality, watershed, etc. can be met). Apply control strategy to all other wildfires. (LRMP p. 4-25)		
Utilize confinement as suppression strategy when the potential fire size will generally not exceed 100 acres. (LRMP p. 4-25)		
Authorize outfitter-guide services in wilderness areas established in 1984 when public need is demonstrated and wilderness objectives can be maintained. (LRMP, p. 4-25)		
Develop or improve trailhead facilities. (LRMP p. 4-25)		
Establish and maintain public pastures to enhance overnight camping opportunities. (LRMP p. 4-25)		
Emphasize pack-in pack-out policy. (LRMP p. 4-25)		

Kings River Special Management Area

Table 35 Alternative A–Standards and Guidelines for the Kings River Special Management Area

LRMP as Amended	MSA	Proclamation
Standards for all zones		
Archaeological sites: Sites are maintained in a condition that will permit an evaluation of significance and if appropriate, listing in the National Register of Historic Places. Significant sites are protected to permit future data recovery (KRSMA MP p. 53)		
Suitable fish habitat: R-5 minimum management requirements, FLMP guidelines, riparian standards and guidelines, best management practices are being applied in a way that supports the objectives established in the SMA and WSR EIS and plan; and project-specific NEPA documents. (KRSMA MP p. 53)		
Management of SMA and WSR: Periodic reviews, to evaluate the effectiveness of management directions and monitoring plan, indicate that the documents reflect the current environmental social and administrative needs in the area. (KRSMA MP p. 53)		
Transportation system: The transportation system's effectiveness meets the opportunity class and zone objectives. Project-specific NEPA documents and the forest's trails plan reflect the objective in the SMA and WSR EIS and plan. (KRSMA MP p. 54)		
Water quality: implementation of BMPs and project design do not permit a decrease in water quality. (KRSMA MP p. 54)		
TES species: Project plans and prescriptions are implemented as designed, consistent with the biological evaluations. (KRSMA MP p. 54)		
Standards for South Fork Zone		
Public use areas consistency with opportunity class III: Dispersed recreation impacts are temporary, and are commonly only		

Alternative A—Kings River Special Management Area, cont'd.

LRMP as Amended	MSA	Proclamation
fire rings in the turnouts along Highway 180. Impacts from recreational activities may be evident to the visitor. Use areas are generally >50 feet apart and are fewer than two per 320 acres. (KRSMA MP, p. 57)		
Management of Highway 180, Boyden Cavern, and Grizzly Falls: Adequate parking is provided, sanitation facilities meet current needs, and all facilities complement the area's natural scenic resources (KRSMA MP p. 57)		
Zone away from Highway 180, Boyden Cavern, and Grizzly Falls: A low probability of meeting other parties or forest users during low use periods (<50 percent chance), a possible encounter with other recreationists during the spring (25 to 50 percent chance). (KRSMA MP p. 57)		
Management focus on river-based and unique opportunities: All resource conditions, social conditions, and management activities reflect the characteristics described for opportunity class II and the objectives for this zone. (KRSMA MP p. 57)		
Standards for Verplank Zone		
Campsite consistency with opportunity class II: Campsites are small and temporary. Some facilities are provided. Impacts from recreational activities may be evident to the visitor. Campsites are >50 feet apart and are fewer than 5 per 320 acres. (KRSMA MP p. 58)		
Few encounters between travelers: A low probability of meeting other parties or forest users during low use periods (<50 percent chance), a possible encounter with other recreationists during the spring (25 to 50 percent chance). (KRSMA MP p. 58)		

Alternative A—Kings River Special Management Area, cont'd.

LRMP as Amended	MSA	Proclamation
Scope of OHV, grazing, and vegetation management: Use of forest resources and OHV use of designated routes is consistent with the long-term protection of the area's natural, archaeological, and scenic resources. (KRSMA MP p. 58)		
Management focus to balance recreation with maintaining natural environment: All resource conditions, social conditions and management activities reflect the characteristics described for opportunity class II and the objectives for this zone. (KRSMA MP p. 58)		
Standards for Converse Zone		
Campsite consistency with opportunity class I: Campsites are small and temporary. No facilities are provided. Impacts are not evident to the visitor. Campsites are >100 feet apart and are fewer than two per 320 acres. (KRSMA MP p. 59) **Human Developments:** No large developments are permitted, and small developments are temporary or subordinate to the environmental setting. (KRSMA MP p. 59)		
Few encounters between travelers: Extremely low probability of meeting other parties or forest users during low use periods (<25 percent chance), a possible encounter with other recreationists on the National Recreation Trail and the Yucca Point Trail (25 to 50 percent chance). (KRSMA MP p. 59)		
Management emphasizes maintaining natural environment: All resource conditions, social conditions, and management activities reflect the characteristics described for opportunity class I and the objectives for this zone. (KRSMA MP p. 59)		

Alternative A—Kings River Special Management Area, cont'd.

LRMP as Amended	MSA	Proclamation
Standards for Boole Zone		
Campsite consistency with opportunity class II: Campsites are small and temporary. Some facilities may be provided. Impacts from recreational activities may be evident to the visitor. Campsites are >50 feet apart and are fewer than five per 320 acres. (KRSMA MP p. 60)		
Few encounters between travelers: A low probability of meeting other parties or forest users during low use periods (<50 percent chance), a possible encounter with other recreationists during the Boole Tree Trail (25 to 50 percent chance). (KRSMA MP p. 60)		
Scope of OHV, grazing, and vegetation management: Use of forest resources and OHV use of designated routes is consistent with the long-term protection of the area's natural, archaeological, and scenic resources. (KRSMA MP p. 60)		
Management focus to balance recreation with maintaining natural environment: All resource conditions, social conditions, and management activities reflect the characteristics described for opportunity class II and the objectives for this zone. (KRSMA MP p. 60)		
Standards for Kings River Corridor Zone (NOTE: Only portion of this in Monument)		
Dead and down material: Ten tons per acres of dead and down material should be available for wildlife and recreational campfire building. (KRSMA MP p. 61)		
Human developments: Not more than five developments per a 320-acre area. Developments include structures and facilities for recreation and non-recreation activities. (KRSMA MP p. 61)		
Vandalism impacts to visuals: No more than three new occurrences of graffiti vandalism or defacing		

Alternative A—Kings River Special Management Area, cont'd.

LRMP as Amended	MSA	Proclamation
of natural features located anywhere within the zone per year. (KRSMA MP p. 61)		
Dispersed campsites: No more than five sites within a quarter-mile length of the river corridor. Dispersed site locations should not impact the experience of other campers. (KRSMA MP p. 61)		
Group camping (encourage use outside SMA/WSR corridor): No more than five declined requests for group camping. The existing accommodations for group camping should meet user needs. (KRSMA MP p. 62)		
Few encounters between travelers: Fifty percent probability of no more than five encounters with other parties. (KRSMA MP p. 62)		
Conflicts between users: No more than five reported or otherwise documented conflicts between different types of users (e.g. anglers and rafters) (KRSMA MP p. 62)		
Public safety: No more than four accidents per year within the zone, with attention to rafting incidents. Accidents are incidents where there is either an incident report filed by a forest officer, or if a forest visitor requires medical attention. (KRSMA MP p. 62)		
Public parking that protects resource and provides public safety: Public parking space should be provided at a level that protects the resource and provides for public safety and comfort. Visitors should find adequate parking at trailheads, raft put-ins, and raft take-outs. (KRSMA MP p. 63)		
Congestion at launch site: Rafting groups do not wait longer than 60 minutes to launch. (KRSMA MP p. 63)		
Groups encountered on river per day: Maximum of 17 parties per day. (KRSMA MP p. 63)		

Visual Resources, Permitted Uses, Cultural Resources, and Lands

Visual Resources

Table 36 Alternative A–Standards and Guidelines for Visual Resources

LRMP as Amended	MSA	Proclamation
Visual Resources		
Maintain visual quality to the VQO level specified. Consider these minimum, but strive for higher visual quality whenever practical and when compatible with other resource objectives. (LRMP p. 4-23)		
Accept occasional short-term departure from adopted visual quality objectives (VQOs) that will lead to long-term desired visual character. Require documented decision based on an environmental analysis whenever proposed activity or development reduces the visual quality below the adopted VQO. (LRMP p. 4-23)		
Manage Highway 180, Highway 190, Highway 178, Sierra Way (sm990), the Western Divide from quaking aspen to the ponderosa, the Generals Highway, the PCT, and heavily used trails that lead directly into wilderness as sensitivity level 1. (LRMP p. 4-23)		
Manage about 270 miles of roads and 200 miles of trail as sensitivity level 2. (LRMP p. 4-23)		
Manage the following viewshed as sensitivity level 1: Monache Meadows, Sherman Pass, and Salmon Creek/Big Meadow. (LRMP p. 4-23)		
Manage the remainder of the forested land as either sensitivity level 2 or 3. Exceptions occur in the following ROS classes where the greatest visual impact allowed will be: SPNM=PR, SPM=M, RN and R=MM, with M as the primary VQO. (LRMP p. 4-23)		
Manage the remainder of the non-forested lands according to ROS classes. The recommended maximum visual impact allowed will be: SPNM=R, SPM=PR, RN and R=MM, with M as the primary VQO. (LRMP p. 4-23)		

Alternative A—Visual Resources, cont'd.

LRMP as Amended	MSA	Proclamation
Initiate corrective action to meet adopted when landscape rehabilitation is needed. (LRMP p. 4-23)		
Consider visual concerns of individual landowners and agencies within and adjacent to National Forest System lands when planning national forest management activities (see timber management, silvicultural systems). (LRMP p. 4-23)		
Manage activities to reflect where ever possible the form, line, color, texture of natural occurrences when viewed from middle ground and background distances. (LRMP p. 4-23)		
Management emphasis 1–general dispersed recreation		
Protect large or unique tree character in foreground (FG) R and PR zones (VQO classes). (LRMP pp. 4-44 and 53)		
Use M as minimum VQO with emphasis on R and PR (VQO classes). (LRMP pp. 4-45 and 48)		
When corrective action is to be taken, landscape rehabilitation requirements are: **Adopted VQO/field season after plan** R first PR third M fifth (LRMP p. 4-48)		
Design edges and openings to meet the VQO (VQO classes): R and PR—feather, vary edge density M—feather only (LRMP p. 4-48)		
Achieve visual variety through random mosaic pattern by varying: a. vegetation density b. age classes c. distribution of treatments (LRMP p. 4-48)		

Alternative A—Visual Resources, cont'd.

LRMP as Amended	MSA	Proclamation
Introduce landscape enhancement to improve scenic quality. (LRMP p. 4-48)		
Remove trees selectively to improve visual amenities within high use areas, vista points, and along interpretive trails. (LRMP p. 4-53)		
Use MM as minimum VQO with emphasis on PR (VQO classes). (LRMP p. 4-53)		
Management emphasis 2–water-oriented recreation		
Protect large or unique tree character in FG R or PR zones (VQO classes). (LRMP p. 4-56)		
Use M as minimum VQO with emphasis on R and PR (VQO classes). (LRMP p. 4-56)		
Protect large or unique tree character in FG zones. (LRMP p. 4-58)		
Use PR as minimum VQO (VQO class). (LRMP p. 4-58)		
Insure visual variety through design of random mosaic patterns by varying: a. vegetation density b. age classes c. distribution of treatments (LRMP p. 4-61)		
Use M as minimum VQO with emphasis on R and PR (VQO classes). (LRMP p. 4-61)		
Management emphasis 3–developed recreation		
Protect large or unique tree character in FG R and PR zones (VQO classes). (LRMP p. 4-63)		
Remove trees selectively to improve visual amenities within high-use areas, at vista points, and along interpretive trails. (LRMP p. 4-63)		
Increase species diversity of native species. (LRMP p. 4-63)		
Use M as minimum VQO with emphasis on R and PR (VQO classes). (LRMP p. 4-63)		

Alternative A—Visual Resources, cont'd.

LRMP as Amended	MSA	Proclamation
Management emphasis 4–wilderness		
Maintain P VQO (VQO class). (LRMP p. 4-65)		
Management emphasis 5~~–wildlife and~~ dispersed recreation		
Open undeveloped vistas for viewing scenery. (LRMP p. 4-68)		
Use M as minimum VQO with emphasis on R and PR (VQO classes). (LRMP pp. 4-68 and 71)		
Design edges and openings to meet the VQO (VQO classes): R and PR—feather, vary edge density M—feather only MM – not applicable (LRMP p. 4-70)		
Manage visual variety through random mosaic pattern by varying: a. vegetation density and diversity b. age class c. distribution of treatments (LRMP p. 4-71)		
Protect large or unique tree character in FG R and PR zones (VQO classes). (LRMP p. 4-76)		
Remove trees selectively to improve visual amenities within high-use areas, vista points and along interpretive trails. (LRMP p. 4-76)		
Specify vegetative clearings less than 5 acres in R and PR zones (VQO classes). (LRMP p. 4-76)		
Use M as minimum VQO with emphasis on PR (VQO classes). (LRMP p. 4-76)		

Permitted Uses

Table 37 Alternative A–Standards and Guidelines for Permitted Uses

LRMP as Amended	MSA	Proclamation
Recreation management (private permitted uses)		
Prepare future use determinations needs assessments for resorts, recreation residence tracts, and organization camps with permits due		Nothing in this proclamation shall be deemed to affect existing special use authorizations; existing uses shall be governed by applicable

Alternative A—Permitted Uses, cont'd.

LRMP as Amended	MSA	Proclamation
to expire during the planning period (attempt three year lead time) when potential use conflicts are identified when the public need for the use has diminished; when unacceptable resource damage is occurring; or when an alternate use is proposed or has evolved without forest service approval. (LRMP p. 4-20)		laws, regulations, and management plans.
Prepare future use determination needs assessments for resorts and organization sites prior to issuing new permits, when existing facilities are sold, and new termination dates are requested and the criteria listed above is applicable. (LRMP p. 4-20)		
Encourage development of recreation uses on private lands permit uses and/or activities on national forest system lands only after full consideration of the opportunities provided by others both public and private. (LRMP p. 4-20)		
Permitted uses		
Maintain at least 50 percent of boating capacity on rivers and lakes within appropriate ROS class for the noncommercial public. (LRMP p. 4-21)		Nothing in this proclamation shall be deemed to affect existing special use authorizations; existing uses shall be governed by applicable laws, regulations, and management plans.

Cultural Resources

Table 38 Alternative A–Standards and Guidelines for Cultural Resources

LRMP as Amended	MSA	Proclamation
Cultural resources		
Comply with 36 CFR 800 regulations by completing cultural resource inventories prior to any action which may affect cultural resources. Develop follow-up actions for evaluation, protection, and/or interpretation as result of inventory findings. (LRMP p. 4-25) Protect cultural resources from the effects of Forest Service or Forest Service-authorized undertakings,		

Alternative A—Cultural Resources, cont'd.

LRMP as Amended	MSA	Proclamation
unauthorized use, and environmental damage. FSM 2300 Chapter 2360.3.		
Inventory: a. Conduct inventories as necessary occasionally doing non-project-specific surveys which will result in partial achievement of the 1995 target for the total forest inventory. b. Complete archaeological reconnaissance reports and site records to allow evaluation of site significance. c. Release those site locations declared not significant for other management activities. d. Approach systematically the reduction of the existing forest backlog of sites to be evaluated. Those types of sites deemed more potentially critical in the forest overview will receive priority. (LRMP p. 4-25)		
Protection: a. Post and sign (e.g., tractors prohibited or Antiquities Act) selected cultural resource sites where such signing will not endanger the sites. b. Monitor number of sites for protection visits will be on revolving basis, and prioritized according to resource significance and vulnerability as developed in the forest overview. c. Develop and provide interpretive brochures for selected sites. (LRMP pp. 4-25 and 26)		
Interpretation: Conduct on-ground interpretation at number of sites where highly significant properties exist or near developed sites where high level of use or exposure is possible (i.e., properties adjacent to campgrounds or historic		

Alternative A—Cultural Resources, cont'd.

LRMP as Amended	MSA	Proclamation
logging activities in the vicinity of campgrounds). (LRMP p. 4-26)		
~~Ethnographic: regularly consult with Native Americans as interested parties on proposed undertakings.~~ (LRMP p. 4-26) Establish and maintain effective relationships with federal, state, tribal, and local governments and historic preservation organizations at all levels of the Agency to ensure protection of cultural resources and to promote heritage program efficiencies. FSM 2300 Chapter 2360.3.		
History: a. Interview key knowledgeable informants occasionally for project-specific information. Bring together and organize archival resources according to forest archival policy. b. Promote interpretation through 3FIA. (LRMP p. 4-26)		
		The Monument provides exemplary opportunities for biologists, geologists, paleontologists, archaeologists, and historians to study these objects. These sites have the potential to shed light on the roles of prehistoric peoples, including the role they played in shaping the ecosystems on which they depended. Outstanding opportunities exist for studying forest resilience to large-scale logging and the consequences of different approaches to forest restoration.
Management emphasis 1–general dispersed recreation		
Establish specific program needs and direction to begin resolution of deficiencies in the forest CRM program, with priority established as follows—archaeology, history, ethnography.		

Lands

Table 39 Alternative A–Standards and Guidelines for Lands (Real Estate)

LRMP as Amended	MSA	Proclamation
Lands		
Survey, mark, and post all property lines to Forest Service standards; give priority to those lands needed for management activities and where high potential for encroachment exists. (LRMP p. 4-37)		
Grant new non-recreation special-use permits or easements only when suitable private land is not available and they would not conflict with forest management objectives. (LRMP p. 4-37)		
Continue minimum level of administration of special uses that meet current direction except where higher levels are warranted on case-by-case basis. (LRMP p. 4-37)		
Acquire available private land and dispose of public land only ~~where needed to reduce administrative costs, foster resource programs, or resolve administrative problems and have favorable benefit-cost ratio~~. (LRMP p. 4-37)		All federal lands and interests in lands within the boundaries of this Monument are hereby appropriated and withdrawn from…sale, leasing, or other disposition under the public land laws including… disposition under all laws…other than by exchange that furthers the protective purposes of the Monument. Lands and interests in lands within the boundaries of the monument not owned by the United States shall be reserved as a part of the Monument upon acquisition of title thereto by the United States.
Acquire rights-of-way needed for management activities and to provide public access to national forest system lands. (LRMP p. 4-37)		
Respond to interagency transfer proposals, as needed. (LRMP p. 4-37)		
~~Review existing withdrawals to determine if they should be continued and for how long.~~ (LRMP p. 4-37)		All federal lands and interests in lands within the boundaries of this Monument are hereby appropriated and withdrawn from…sale, leasing, or other disposition under the public land laws including…disposition under all laws…other than by exchange that furthers the

Alternative A—Lands, cont'd.

LRMP as Amended	MSA	Proclamation
protective purposes of the Monument. Lands and interests in lands within the boundaries of the Monument not owned by the United States shall be reserved as a part of the monument upon acquisition of title thereto by the United States.		

Facilities Operation and Maintenance

Table 40 Alternative A–Standards and Guidelines for Facilities (including Roads)

LRMP as Amended	MSA	Proclamation
Energy		
Encourage energy development, when sources are available, as long as the development is consistent with other standards and guidelines. (LRMP p. 4-37)		All federal lands and interests in lands within the boundaries of this Monument are hereby appropriated and withdrawn from entry, location, selection, sale, leasing, or other disposition under the public land laws including, but not limited to, withdrawal from locating, entry, and patent under the mining laws and from disposition under all laws relating to mineral and geothermal leasing…The establishment of this monument is subject to valid existing rights.
Facilities (including roads)		
Provide additions to the transportation system to meet the needs of resource management. a. ~~Construct approximately 24 miles of local roads per year (20-year average). These roads usually range from 0.5 to 1.5 miles in length and are normally single lane with earth surface.~~ b. ~~Reconstruct approximately 18 miles of local roads per year (20-year average). These roads usually range from 1.0 to 4.5 miles in length and normally consist of clearing surface reshaping curve widening and drainage work.~~ c. ~~Construct approximately 5.9 miles per year of collector roads in the first decade to provide~~		The management plan shall contain a transportation plan for the Monument that provides for visitor enjoyment and understanding about the scientific and historic objects in the Monument, consistent with their protection. No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.

Alternative A—Facilities Operation and Maintenance, cont'd.

LRMP as Amended	MSA	Proclamation
~~access to currently unroaded areas. These roads are normally 3 to 7 miles in length and are usually single lane roads but constructed to higher standard than local routes. Higher standards may consist of flatter grades, larger radius curves, more turnouts, and may have surface stabilization.~~ (LRMP p. 4-37)		
Manage the road system to assure resource protection, provide safe access and accommodate resource management needs. a. Emphasize maintenance of arterial and high volume collector roads to provide high degree of user comfort. b. May not maintain for user comfort collector roads with low traffic volumes. c. Open roads to public travel unless closure is necessary to ensure resource protection, road investment protection, or for other management reasons. (LRMP p. 4-38)		
Road construction, reconstruction, and relocation		
To protect watershed resources, meet the following standards for road construction, road reconstruction, and road relocation: (1) design new stream crossings and replacement stream crossings for at least the 100-year flood, including bedload and debris; (2) design stream crossings to minimize the diversion of streamflow out of the channel and down the road in the event of a crossing failure; (3) design stream crossings to minimize disruption of natural hydrologic flow paths, including minimizing diversion of streamflow and interception of surface and subsurface water; (4) avoid wetlands or minimize effects to natural flow patterns in wetlands; and		

Alternative A—Facilities Operation and Maintenance, cont'd.

LRMP as Amended	MSA	Proclamation
(5) avoid road construction in meadows. Conduct an integrated interdisciplinary transportation analysis, following the national roads analysis procedures, as part of landscape analysis. Complete unclassified road inventories for each national forest within 10 years. (SNFPA ROD, Appendix A, p. A-32)[1]		
Rehabilitate, replace, or relocate existing buildings to support forest management. (LRMP p. 4-38)		
Maintain buildings at least to minimum level that protects health and prevent building deterioration. (LRMP p. 4-38)		
Improve signing of road closures to include the reason for closure. (LRMP p. 4-38)		
Maintain selected roads for OHV enthusiasts. (LRMP p. 4-38)		
Management emphases 1–general dispersed recreation, 2–water-oriented recreation, 3–developed recreation, ~~5–wildlife and~~ dispersed recreation		
~~Limit road developments in SPM ROS areas to low density, local roads.~~ (LRMP pp. 4-44, 4-47, 4-53, 4-55, 4-58, 4-60, 4-63)		No new roads or trails will be authorized within the Monument except to further the purposes of the Monument.
Management emphasis 1–general dispersed recreation		
Maintain trailhead access roads at a minimum of level 3. (LRMP pp. 4-44, 4-47, 4-53)		
Management emphasis 2–water-oriented recreation		
Maintain trailhead access roads and primary access routes to developed facilities at a minimum of level 3. (LRMP pp. 4-55, 4-58, 4-60)		
Management emphasis 3–developed recreation		
Maintain all roads used to access developed recreation sites at a minimum of level 3. (LRMP p. 4-63)		
Management emphasis 4–wilderness		
Construct and maintain trail bridges consistent with wilderness uses. (LRMP p. 4-65)		

1. Travel management is current road analysis procedure, and unclassified roads are now labeled unauthorized roads.

Alternative A—Facilities Operation and Maintenance, cont'd.

LRMP as Amended	MSA	Proclamation
Maintain administrative facilities consistent with wilderness values. (LRMP p. 4-65)		
Management emphasis 5~~–wildlife and~~ dispersed recreation		
Maintain trailhead access roads at a minimum of level 3. (LRMP pp. 4-67, 4-70, 4-76)		
Use seasonal closure as a tool to protect key wildlife values. (LRMP p. 4-76)		

Special Areas, including Special Interest Areas

Table 41 Alternative A–Standards and Guidelines for Special Areas, Botanical Areas, and Research Natural Areas

LRMP as Amended	MSA	Proclamation
Botanical areas		
The Baker Point (750 acres), Bald Mountain (4140 acres), Inspiration Point (270 acres), Slate Mountain (490 acres), and Ernest Twisselman (860 acres) areas are classified as botanical areas, and management plans will be developed pursuant to 36 CFR 294.1(a) and the authority vested in the regional forester by the Chief of the Forest Service. (LRMP pg. 4-26)NOTE: Baker Point, Bald Mountain, Inspiration Point and Twissleman are outside the Monument.		
	The Sequoia National Forest shall manage this area [Freeman Creek Grove Management Area] as a botanic area. (MSA p. 17)	
	There shall be no logging and no motorized vehicle use by the public anywhere in the Freeman Creek Grove Management Area as shown on the map Exhibit E. (MSA p. 17)	
Special areas per MSA—NOT synonymous with special interest areas		
NOTE: This trail extends outside the Monument so it will be addressed in the forest plan revision.	5. The California Riding and Hiking Trail should be addressed, and appropriate visual protection shall be determined, in the forthcoming trail plan. (MSA p. 75)	

Alternative A—Special Areas, including Special Interest Areas, cont'd.

LRMP as Amended	MSA	Proclamation
NOTE: The Condor Recovery Plan was revised in 1996 and requires us to protect "known" nesting sites.	~~Lion and Blue Ridges. Condor roosting sites will be protected.~~ (MSA p. 75) Note: Only Starvation Grove and Lion Ridge are within the Monument.	
	Rancheria Road: The southern portion of the Western Divide Highway, known as the Rancheria Road (from the Kern/Tulare County line south to the Kern Canyon) will be managed under a foreground partial retention visual quality objective. (MSA p. 75)	
Research natural areas		
Protect and manage the following potential RNAs as if they are already established pending their final establishment or release by Chief of the Forest Service: Mosesm Mountain (960 acres), South Mountaineer Creek (1325 acres), Church Dome (1380 acres) and Long Canyon (1000 Acres). (LRMP p. 4-26) NOTE: only Moses Mountain and South Mountaineer Creek areas are in the Monument.		
Prepare establishment reports for submission to the Chief for the following areas recommended by the regional RNA committee for final establishment: Church Dome, South Mountaineer Creek, and Moses Mountain. (LRMP p. 4-26) NOTE: only Moses Mountain and South Mountaineer Creek are in the Monument, and Moses Mountain designated as a RNA 1994.		
National landmarks		
Continue coordination with the National Park Service to conduct onsite landmark evaluation studies for the following sites: Moses Mountain, Long Canyon, Bald Mountain, Inspiration Point. These candidate areas will be adequately protected and managed within the		

Alternative A—Special Areas, including Special Interest Areas, cont'd.

LRMP as Amended	MSA	Proclamation
foregoing classifications until final resolution. (LRMP p. 4-27) NOTE: only Moses Mountain is in the Monument.		