Chapter 1: Purpose and Need

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1.1. Introduction

This supplemental environmental impact statement (SEIS) addresses three problem areas in the Sierra Nevada region that were analyzed in the Final Environmental Impact Statement (FEIS) for the Sierra Nevada Forest Plan Amendment (SNFPA) (USDA Forest Service, Pacific Southwest Region 2001a):

- old forest ecosystems and associated species
- aquatic, riparian, and meadow ecosystems
- fire and fuels

New understanding has been gained and new information has become available since the SNFPA Record of Decision (ROD) was adopted for the forests of the Sierra Nevada (USDA Forest Service, Pacific Southwest Region 2001b).

Several alternative management approaches are described in chapter 2, including a "no action" alternative that would continue the management direction established by the ROD in January 2001. The other alternatives include the alternatives originally considered in the FEIS and one new alternative—the proposed action and preferred alternative, which was formulated to respond to findings of a SNFPA review team, as described in the following section. Chapter 3 describes the affected environment updated since the FEIS was completed. The environmental consequences of each management alternative are documented in chapter 4. Appendices describe standards and guidelines for implementation of the no-action alternative and the proposed action, modeling assumptions and techniques, and assess the applicability of the FEIS effects analysis to the new alternatives assessed in chapter 4. A companion volume includes public comments on the draft SEIS, together with the Forest Service's response. A list of acronyms and abbreviations, list of references cited in the document, an index, and a list of preparers for the SEIS are found at the back of this document.

This document is the *final* version of the SEIS, prepared pursuant to the National Environmental Policy Act. The *draft* SEIS was released to the public in June 2003. A comment period of 90 days was established, and over 55,000 comment messages were received. In response to these public comments and the outcome of reviews by Forest Service land and resource managers, the alternatives in the draft SEIS were modified, factual corrections were made, and the supporting analysis was modified and improved.

This SEIS describes proposed amendments and discloses effects of those amendments to the land and resource management plans for the Modoc, Lassen, Plumas, Tahoe, Eldorado, Stanislaus, Sequoia, Sierra, Inyo, and Humboldt-Toiyabe National Forests and the Lake Tahoe Basin Management Unit. Current management direction applicable to portions of the Lassen and Modoc National Forests as amended by the Northwest Forest Plan are not affected by changes proposed in this SEIS.

1.2. Background

Completed in January 2001, the SNFPA FEIS and ROD were the product of more than 10 years of regional planning efforts for management of the species and ecosystems of the Sierra Nevada bioregion. The Forest Service received more than 200 appeals of the decision. The Chief of the Forest Service (Chief) affirmed the decision but directed the Regional Forester of the Pacific Southwest Region (Regional Forester) to review certain elements of the decision.

In December 2001, the Undersecretary of Agriculture for Natural Resources and Environment (Undersecretary) returned the SNFPA decision to the Forest Service, electing not to conduct a discretionary review. The Undersecretary expressed confidence that the Regional Forester would develop an aggressive plan to respond to the Chief's appeal decision with an open, public review of SNFPA.

The Regional Forester chartered the SNFPA Review Team (Team) to evaluate the SNFPA ROD and recommend any needed changes in six specific areas. The Regional Forester directed the Team to use an open public process to identify opportunities to

- pursue more aggressive fuels treatments while still protecting old-forest conditions and species at risk,
- improve compatibility with the National Fire Plan to ensure that goals of community protection and forest health are accomplished,
- implement the Herger-Feinstein Quincy Library Group Pilot Project to the fullest extent possible,
- reduce unintended and adverse impacts on grazing permit holders,
- reduce unintended and adverse impacts on recreation users and permit holders, and
- reduce unintended and adverse impacts on local communities.

The Team reviewed the SNFPA ROD and FEIS and supporting documents and gathered information concerning each of the above areas. The Team gathered input from national forests currently implementing SNFPA and former members of the SNFPA interdisciplinary team, held meetings with interest groups, sponsored field trips, and reviewed work products generated by the Regional Office SNFPA Implementation Team. The Team also reviewed the appeals record and the Chief's appeal decision.

The Team investigated a number of concerns related to the subject areas identified by the Chief and Regional Forester. During the review, new analytical techniques were developed to provide insight into how management direction was implemented on the ground. Some additional information was collected and compiled concerning species of concern from new research, conservation assessments, and field surveys. While the review was underway, the U.S. Fish and Wildlife Service (FWS) released listing decisions for the California spotted owl and Yosemite toad. The findings of the year-long review are acknowledged in this SEIS. The review is documented in Sierra Nevada Forest Plan Amendment, Management Review and Recommendations (USDA Forest Service Pacific Southwest Region 2003g), which is hereby incorporated by reference.

1.3. Purpose and Need for Action

The purpose of the proposed action is to adjust existing management direction to better achieve the goals of SNFPA. The SNFPA Review described above, as well as insight gained from almost three years of implementing SNFPA, highlighted the need for refinements of management direction in the following three broad problem areas originally identified in SNFPA: old forest ecosystems and associated species; aquatic, riparian, and meadow ecosystems; and fire and fuels. It also highlighted the need to refine management direction so as to implement the *Herger-Feinstein Quincy Library Group Forest Recovery Act* to the fullest extent that is compatible with other legal mandates.

1.3.1. Old Forest Ecosystems and Associated Species

The Sierra Nevada Ecosystem Project (SNEP) report (chartered by Congress and completed in 1996) found that old forest ecosystems were one of the most altered ecosystems in the Sierra Nevada Region

and that the habitat and/or population of some animals associated with old forests was in decline. Accordingly, SNFPA was intended to provide regionally consistent direction for old forest conservation. Specific goals included in the FEIS (volume 1, chapter 1, pages 5-6) were to:

- protect, increase, and perpetuate desired conditions of old forest ecosystems, and conserve their associated species, while meeting people's needs for commodities and outdoor recreation;
- increase the density of large trees, increase structural diversity of vegetation, and improve the continuity and distribution of old forests across the landscape; and
- reverse declining trends in the abundance of old forest ecosystems and habitats for species that use old forests.

The above needs are still valid and must be addressed when making changes to existing management direction. However, the new information concerning species dependent on old forest ecosystems requires consideration. For example, recent analysis of California spotted owl populations in four study areas within the Sierra Nevada can better inform judgments about the current population status and risks of actions to reduce hazardous fuels.

After reviewing the best available scientific and commercial information available, in February 2003 FWS announced that listing of the California spotted owl as an endangered species was not warranted. In that finding, the use and availability of owl habitat on private lands was documented (see chapter 3 for a summary of that info). The finding also assumed that management of the national forests in the Sierra Nevada was based on the SNFPA. The finding and the rationale for it are also important pieces of information acknowledged in the SEIS.

California continues to have significant problems with wildland fire and forest health. Decades of fire exclusion have produced overcrowded vegetation in many forests, which has weakened trees and made them more fire prone and more susceptible to pests, diseases, and displacement by invasive species. The number and severity of wildfires continues to increase. Using historic fire data and recent trends, habitat losses are expected to increase on the average. More importantly, these losses are likely to result from significant fire events that cause significant impacts to habitat in a concentrated location instead of averaged over the bioregion. There is a need to reduce expected habitat losses to a rate at least equal to replacement by treating enough acres with enough intensity to significantly modify fire behavior. The SNFPA Review indicated that adjustments to management direction would improve the Forest Service's ability to accomplish this goal.

1.3.2. Aquatic, Riparian, and Meadow Ecosystems

SNEP found that aquatic, riparian, and meadow ecosystems are the most degraded of all habitats in the Sierra Nevada, although much of this problem was seen to be related to lower elevation dams and diversions. In addition, many aquatic and riparian-dependent species, such as willow flycatcher and Yosemite toad, were found to be at risk of extirpation. SNFPA was intended to provide regionally consistent direction to address these problems. Specific goals were to

- protect and restore desired conditions of aquatic, riparian, and meadow ecosystems in Sierra Nevada national forests; and
- provide for the viability of species associated with those ecosystems.

The above needs are still valid and must be addressed when making changes to existing management direction. However, new information must be considered concerning the population status and distribution of Yosemite toad and willow flycatcher, which was gained from two years of field surveys conducted according to established protocol. The recently completed conservation assessment for the willow flycatcher includes updated information about the status of the species and possible refinements to

management and restoration of suitable habitat. This information reinforces the importance of considering local data and conditions when planning projects in flycatcher habitat.

An assessment of the reduction in grazing activity that would result from implementing FEIS standards and guidelines for meadows and meadow-associated areas was completed during the SNFPA Review. Accordingly, the SEIS considers changes to management direction that would require the development of site-specific grazing strategies, to allow more economic benefits to be retained while continuing to minimize risks to sensitive species.

1.3.3. Fire and Fuels

The SNFPA FEIS recognized that wildland fire poses a major threat to life, property, financial resources, and natural resources in the Sierra Nevada. In addition, the continued and rapid growth of the region's human population continues to increase the risk of loss of life and property from wildfires, unless hazards are mitigated. The SNFPA was intended to provide a coordinated strategy for addressing the risk of catastrophic wildfire that resulted from decades of fire suppression and the resulting build-up of hazardous fuels. Specific goals were to

- reduce the wildfire threat to human communities and ecosystems and natural resources,
- maintain ecosystem functions, and
- decrease the cost of fire suppression.

These goals remain valid and must be addressed when making changes to existing management direction. However, since the ROD was signed, changed circumstances must be considered in framing management direction to attain these objectives.

The National Fire Plan represents a collaborative approach to wildland fire management that has broad support from the Administration, Congress, the Western Governors, and many other local and regional groups. In May of 2002, the Secretaries of Agriculture and Interior and the Western Governors developed an implementation plan for this collaborative effort. It encourages local Forest Service units to work collaboratively with state and local agencies to accomplish the desired outcomes of this plan. The Regional Forester is committed to achieving the goals of the National Fire Plan and wants management direction for the Sierra Nevada forests to contribute to achieving the goals and meeting the performance measures of the implementation plan.

The SNFPA Review identified aspects of the existing management direction that must be refined to achieve this goal. Stated briefly, fuels treatments must significantly lower wildfire intensity and rate of spread, thus directly contributing to more effective suppression and smaller acreage burned. Hazardous fuels must be treated in a cost-efficient manner to maximize program effectiveness. Fuels management must actively restore fire-adapted ecosystems by making demonstrable progress in reducing the acreage of unnaturally dense forest (i.e. changing a substantial acreage from Fuel Condition Class 2 or 3 to Condition Class 1).

The SNFPA Review also recognized that the by-products of mechanical thinning present an economic opportunity for local communities. The Review identified measures to assess the degree to which fuels reduction programs are creating local economic benefits. Increasing the economic value of fuel treatment byproducts would also improve the Forest Service's ability to treat the desired acreage of hazardous fuels with available appropriated dollars.

The SNFPA Review Team identified a need to more fully consider three critical aspects of the fire and fuels management strategy established in SNFPA. Selected standards and guidelines need to be adjusted to ensure that certain post-treatment conditions can be met. In particular, fuels treatments must

- be strategically placed across the landscape,
- remove enough material to cause wildfires to burn at lower intensities and slower rates of spread in treatment areas compared to untreated areas, and
- be cost-efficient, so program goals can be accomplished with available appropriated dollars.

The Review Team's analysis identified the prescriptive nature of the existing standards and guidelines for vegetation management to be a primary barrier to meeting these three needs. This potential problem was recognized in the FEIS by a statement concluding that "Modified Alternative 8 would have stand level structural requirements that could preclude full implementation of the fuels strategy" (FEIS volume 1, "Summary," page 29).

The SNFPA Review identified the need to adjust the existing fuels management direction to make it less complicated and costly to implement. To meet that need, standards and guidelines must allow a wider array of tools and techniques for meeting fuels reduction objectives that better respond to local resource conditions in a cost-effective manner. In addition, the FEIS's emphasis on prescribed burning for initial treatments needs to be reduced because of public concerns about smoke and because of the limited number of permissible burn days under state air quality management rules.

1.3.4. Implementation of the Herger-Feinstein Quincy Library Group (HFQLG) Forest Recovery Act Pilot Project

Within the Sierra Nevada bioregion, a number of special plans and projects are underway to test alternative management strategies. Some of these were explicitly recognized in the ROD and were allowed to continue unimpeded by new direction in SNFPA. These initiatives include the Upper Pit River Watershed Restoration Project, the Hackamore Ecosystem Restoration Project, the Warner Mountain Rangeland Management Planning Effort, the Modoc/BLM Experimental Stewardship Project, management of the Big Valley Sustained Yield Unit, and management of the Sequoia National Monument. However, the ROD did not make provisions for the HFQLG Pilot Project to continue in its original form. Instead, the ROD imposed new land allocations, new standards and guidelines for sensitive species, and a new fire and fuels strategy, and it eliminated the project's program of group selection (except as part of an administrative study). Under the SNFPA ROD, the rate of implementation of DFPZs was approximately 40% per year of what was envisioned by the Act and approximately 12% per year for group selections.

The pilot project was intended to produce information needed to reduce scientific uncertainty concerning environmental effects of certain forest management activities. However, the SNFPA Review found that, collectively, the standards and guidelines in the ROD limited this learning from occurring and, therefore, compromised the adaptive management strategy. In addition, the Review Team found that HFQLG's goal of commodity production was also compromised by the ROD, which made no provision for regeneration harvest to continue within or outside of the HFQLG pilot project area. In light of these findings, management direction needs adjustment to better reconcile the goals of the HFQLG Pilot Project with those of the SNFPA and its adaptive management component.

1.4. Proposed Action

The decision to be made is whether to amend as described above the land and resource management plans for the Humboldt-Toiyabe, Modoc, Lassen, Plumas, Tahoe, Eldorado, Stanislaus, Sierra, Sequoia, and Inyo National Forests and the Lake Tahoe Basin Management Unit.

The proposed action responds to changed circumstances and information identified in a year-long review of SNFPA. The following is a general overview of the proposed action. It is described in more detail as *Alternative S2* in chapter 2.

The proposed action replaces the standards and guidelines of the existing SNFPA strategy for fire and fuels with direction that provides flexibility needed at the local level to effectively modify wildland fire behavior. Opportunities are also provided to allow for generation of by-products. By-product production would offset the cost of fuels treatment and allow the desired program level acreage of hazardous fuels to be treated. In addition, the basic fire and fuels strategy provides for other important objectives, such as reducing tree stand density to improve forest health, restoring and maintaining ecosystem structure and composition, and restoring ecosystems after severe wildfires and other large catastrophic events. The resulting integrated strategy is designed to be aggressive enough to minimize risks to communities from wildfire in the urban-wildland interface and to adequately address the threats to wildlife of catastrophic wildfires across broader landscapes. This strategy must be balanced with the need to ensure that wildlife and other resource values are protected today and in the future.

The proposed action also provides for implementation of the HFQLG Forest Recovery Act Pilot Project.

The proposed action includes new standards and guidelines for willow flycatcher habitat, Yosemite toad habitat, great gray owl protected activity centers, as well as grazing utilization standards to better reflect the wide array of site-specific conditions and the management opportunities they may provide.

The proposed action clarifies management intent for off-highway vehicles; applies the requirement for limited operating periods only to vegetation management activities; and clarifies applicability of several riparian standards and guidelines to recreation activities, uses, and projects. These changes are proposed to more closely align management direction with management goals established in SNFPA.

1.5. Responsible Officials and Decision to be made

The Regional Foresters for the Pacific Southwest Region and the Intermountain Region are the responsible officials for amendment of the SNPFA. The Chief has delegated signing authority for the Intermountain Regional Forester to the Regional Forester for the Pacific Southwest Region.

1.6. Public Participation

From early June through August extensive outreach efforts were made by national forest leaders to highlight management proposals and encourage public participation for the development of a selected alternative.

Each forest supervisor strongly attempted to engage the local communities through a variety of programs and comment opportunities during the public comment period. The majority of those contacted were interested in the proposals and clearly some groups expressed high interest in the proposed management actions.

Each national forest worked with the general public, elected officials, Resource Advisory Councils (RAC's), Native Americans, special interest groups, the media, and other people in their local area.

Supervisors and their staff's hosted field trips, attended and presented programs to special interest or local groups, submitted opinion editorials, provided written material or audio visual programs, talked with the

media, and discussed with a wide variety of interests the proposals for future management. In addition, a web site was available for further information on management proposals.

Citizen participation varied and ranged from minimal at some public meetings, to greater participation at special interest group presentations, or at specific events. The Stanislaus National Forest, for example, met with range permittees at a well attended meeting to discuss procedures for permittee compliance.

USFS employees also were briefed or requested to monitor the development of the Draft SEIS to more adequately discuss the project with the public or participate in its development.

Collaborative interest continued to be a theme with presentations. For example, the Eldorado National Forest in mid-August discussed the SEIS in a public collaborative learning meeting to prioritize fuels reduction work.

Highlighting fuels management was a topic of frequent discussions and field trips. At one national forest, congressional aides visited field sites to review the issues and view some of the problem areas.

Although many meeting participants were familiar with the issues, there were indications that some lacked an awareness of current management, particularly in the area of fuels reduction. This was noted by the Tahoe National Forest staff that subsequently developed a field trip to show fuels reduction completed in a Wildland Urban Interface site.

The intent of the public involvement program was to inform people of the opportunity to review the Draft SEIS and to comment on it. The activities focused on explaining the need for action to improve accomplishments of Framework goals, National Fire Plan, HFGLG Pilot Projects, and means to reduce impacts of recreation and grazing activities. The public involvement activities explained the proposed changes and compared them to the current SNFPA rules, especially as they accomplished habitat protection and reduced wildfire losses.

A sample of the methods used by each national forest for public involvement includes the following:

- Elected officials – letters to, or meetings (including field trips) with, federal, state, or county government leaders
- Public meetings – open house, collaborative, or formal meetings
- Special interest groups – group meetings, field trips, presentations, individual leadership meetings
- Fire Safe Councils – presentations to council or key leaders
- Service Clubs – presentations
- Media – opinion editorials, electronic media interviews, reporter briefings, accompaniment on field trips, news releases
- Native Americans – presentations to tribal leaders, letters of notification on public comment periods
- Employees – letters or briefings
- Federal/State/County/City Agency – letters or briefings

Public Comment

The Draft SEIS was available for public review and comment from June 13, 2003, to September 12, 2003. During the comment period, the Forest Service heard from nearly 56,000 people. The agency received approximately 1,300 individual letters, 3 resolutions, and approximately 600 different form letters. Organized response campaigns accounted for 97.5 percent of the total pieces of mail (53,866 form letters out of a total of 55,258) received during the public comment period. These response campaigns generally

fell into one of two categories: forms or multi-signature letter (numerous signatures on one letter). Over 400 public concerns were identified from the comments.

Public concerns reflected a broad range of views relative to the proposed action and analysis of alternatives presented in the Draft SEIS. Numerous concerns were raised about the purpose and need for the proposed amendment and many questioned the agency's decision to propose an amendment. The Forest Service received a wide variety of comments regarding the adequacy of the environmental analysis presented in the Draft SEIS. Generally, the public expressed a desire to see more information in the Final Supplemental Environmental Impact Statement, such as information regarding impacts to recreation, grazing, timber production, cultural resources, and socio-economics.

Many comments expressed concerns that the Draft SEIS did not adequately address impacts to at-risk Sierra Nevada wildlife species, including the California spotted owl, fisher, marten, willow flycatcher, and amphibians, such as the mountain yellow-legged frog and the Yosemite toad. Changes in grazing restrictions and projected increases in mechanical harvesting under the preferred alternative raised concerns about potential fragmentation of important habitats for these species and possible adverse impacts. Concerns were raised that the proposed amendment could undermine the Forest Service's mandate under the National Forest Management Act to maintain viable populations of designated sensitive species. Others asserted that improving forest health should not be overridden by wildlife habitat objectives, and requested the Forest Service to craft an amendment that provides for maximum flexibility in carrying out fuels reduction and forest health projects.

The public expressed a broad range of concerns relative to fire and fuels management. Goals for protecting communities from wildfire and for preserving species and ecosystems were often viewed as conflicting. Public comments regarding fire and fuels management reflected this conflict with comments that were often polarized in a "protect people" versus a "protect the environment" stance. Broad themes in public concerns relative to fire and fuels management included: a need to harmonize planning efforts with national direction, a need to clarify and justify information presented in the SEIS, a need to ensure funding for fire and fuels management, and a need to better define where treatments will occur and what techniques will be used for fire and fuels treatments.

1.7. Forest Service and Tribal Relations

The relationships of the Forest Service with American Indian tribal governments, communities, and organizations are important in the management and restoration of ecosystems in the Sierra Nevada and Modoc Plateau. Tribal representatives participated in the Sierra Nevada Framework Management Review and Supplemental EIS process through interagency team meetings, workshops, field trips, and presentations. The Forest Service continues to work with tribal governments through forest level government-to-government consultation to seek increased opportunities to implement the nine commitments of the SNFPA that were included in the Record of Decision (pages 52-3). At the regional level, annual Sierra Nevada tribal summits are co-hosted, on a rotating basis, by local tribes and forests. At these tribal summits, relationships and communication networks are strengthened through local examples of SNFPA commitment accomplishments and updates of works-in-progress.

To meet our responsibilities under the trust relationship, to encourage the participation of American Indians in national forest management, and to build on the progress made to date, the forests will continue to honor the Record of Decision commitments:

- We will work with tribal governments and tribal communities to develop mutually acceptable protocols for government-to-government and tribal community consultations. These protocols will emphasize line officers' and tribal officials' roles and responsibilities.

- We will consult with appropriate tribal governments and tribal communities regarding fire protection and fuels management activities that potentially affect rancherias, reservations, and other occupied areas. We will develop fire protection plans for such areas in consultation with appropriate tribal or intertribal organizations. We will coordinate with tribes and appropriate tribal organizations regarding training, outreach, and other items of mutual interest in order to support tribal and national forest fire programs.
- Traditional American Indian land use practices, tribal watershed, and other ecosystem restoration practices and priorities will be considered early in national forest planning, analyses, decision making, and adaptive management processes. During landscape analyses and similar activities, we will access vegetation community conditions where a specific area has an identified importance to an affected tribe or tribal community. We will consult with affected tribes, and/or tribal communities to consider traditional and contemporary uses and needs.
- We will consider traditional American Indian vegetation management strategies and methods and integrate them, where appropriate, into ecosystem restoration activities. We will cooperate with tribes, tribal communities, and intertribal organizations to develop ecosystem stewardship projects.
- We will consider the relationship between fire management and plants culturally important to American Indians. Where fuels treatments may affect tribes or tribal communities, or plants culturally important to them, we will consult on the development of burn plans and consider approaches that accommodate traditional scheduling and techniques of fire and vegetation management.
- When implementing noxious weeds management programs, we intend to maintain or if appropriate, increase the availability of plants traditionally used by American Indians. We will consult with appropriate tribes, tribal communities or tribal organizations to identify areas of new or worsening weed infestations and develop plans for appropriate weed control.
- We will, where appropriate, include culturally significant species in monitoring protocols related to management activities.
- We will maintain appropriate access to sacred and ceremonial sites and to tribal traditional use areas. We will consult with affected tribes and tribal communities to address access to culturally important resources and culturally important areas when proposing management that may alter existing access. After appropriate assessment and consultation, we will consider proposing mineral withdrawals and other protection of inventoried sacred sites.
- We will protect all sensitive and proprietary information to the greatest extent permitted by law. We will secure permission to release information from the tribe, tribal community, or individual who provided it prior to release to others.