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Sierra Nevada Forest Plan Amendment

Final Supplemental Environmental Impact Statement

Response to Public Comments

Volume 2

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Response to Public Comments

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Introduction

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.

Response to Public Comments

1. Planning Processes

Purpose and Need for Proposed Action

1.1. Public Concern: *The SEIS needs to do a better job of justifying the need to supplement the SNFPA FEIS. Why can't the Framework be implemented as described in the FEIS? What efforts were done to implement the FEIS and how did those projects show the need to supplement the FEIS? Justification for the SEIS should not be based on the threat of forest fires, inadequate funding, the number of appeals on the FEIS, or inconsistency with the National Fire Plan.*

Response: The SNFPA FEIS and ROD (signed in January 2001) were the result of more than 10 years of regional planning efforts aimed at managing species and ecosystems in the Sierra Nevada bioregion. After reviewing more than 200 appeals of the SNFPA ROD, the Chief of the Forest Service affirmed the ROD and directed the Pacific Southwest Region to review certain elements of the decision and the associated SNFPA FEIS. To respond to the Chief's direction, the Pacific Southwest Region conducted a year-long review to identify needed changes to the existing Record of Decision relative to six specific areas. The SNFPA Review Team used an open and public process to identify opportunities to: (1) pursue more aggressive fuels treatments while protecting old forest conditions and species at risk; (2) achieve consistency with the National Fire Plan; (3) harmonize the decision with the Herger-Feinstein Quincy Library Group (HFQLG) Forest Recovery Act Pilot Project; (4) reduce impacts on grazing permit holders; (5) reduce impacts on recreation users and permit holders; and (6) reduce impacts on local communities. The SNFPA Review highlighted the need for refinements in management direction relative to three of the five problem areas addressed in the SNFPA: (1) old forest ecosystems and associated species; (2) aquatic, riparian, and meadow ecosystems and associated species; and (3) fire and fuels management. The purpose of the proposed action is to adjust the existing management direction to better achieve the goals of the SNFPA.

Although a formal public scoping period was not required for the SEIS, the proposed action is informed by the extensive and open public process used during the SNFPA review. The review was a transparent and collaborative process conducted by Forest Service employees working with key stakeholders, including elected officials, tribes, interest groups, and other government agencies. Insight was obtained from dozens of public meetings, workshops, and field trips held with employees, interest groups, scientists, other government agencies, journalists and others. The American public has a broad array of ideologies regarding the long-term conservation goals for the nation's public lands. The issues identified in the SNFPA FEIS (Volume 1, Chapter 1, pp. 12-16) reflect these broad areas of concern, debate and disagreement, which also surfaced during the review.

Findings of the SNFPA Review Team (*Sierra Nevada Forest Plan Amendment Management Review and Recommendations*, R5-MB-012, March 2003) indicated that certain standards and guidelines in the ROD could not be implemented in an effective or cost efficient manner; were redundant, overlapping and ambiguous; had unintentional adverse impacts to forest users. The Review Team also identified new scientific information that could be used to inform the effects analysis and a decision.

The proposed action identified in the SEIS responds to the findings of the Review Team and is based on their recommendations.

*1.2. **Public Concern:** Do not amend or supplement the Framework decision. Implement the Framework as analyzed in the FEIS. Allow for a longer implementation period of the current FEIS decision before making any amendments or supplements.*

Response: Chapter 1 of the SEIS provides detailed information about the review of the January 2001 Record of Decision (ROD) for the Sierra Nevada Forest Plan Amendment (SNFPA) based on direction from the Chief of the Forest Service and new information. The findings of the SNFPA Review Team indicated a need to consider proposed changes to the existing SNFPA ROD to respond to "changed circumstances and new information" concerning the California spotted owl; aquatic, riparian, and meadow ecosystems; fire and fuels; and implementation of the Quincy Library Project (DSEIS page 27). The proposed action identified in the Draft SEIS is based on the Review Team's recommendations. Additional time is not needed to verify the findings of the Review Team.

*1.3. **Public Concern:** The SEIS needs to identify a broader range of significant issues, objectives and goals.*

Response: Chapter 1 of the FEIS describes the background and purpose of the larger Framework for Conservation and Collaboration for the Sierra Nevada. The scope of the SEIS was established by the Chief of the Forest Service in his *Appeal Decision on the Sierra Nevada Forest Plan Amendment Record of Decision* ((November 16, 2001) and by the Pacific Southwest Regional Forester in his Charter for the SNFPA Review Team (December 31, 2001).

Decisions on resource areas not covered by the Final SEIS may be dealt with during development of national forest plan revisions. All of the national forests in the Sierra Nevada and Modoc Plateau are scheduled to begin revisions of their plans within the next 5 years.

Decision-Making Authority

*1.4. **Public Concern:** The SEIS should restore the decision-making authority to individual forests and local communities.*

Response: Chapter 1 of the Draft SEIS describes the background and the purpose and need for the proposed action. The proposed action retains the goals of the original Sierra Nevada Forest Plan Amendment Project for conserving old forest ecosystems and associated species; conserving aquatic, riparian, and meadow ecosystems and associated species; and managing fire and fuels (DSEIS, pages 28 through 30). It proposes changes to specific elements of the existing SNFPA ROD to improve the Forest Service's ability to achieve these goals.

The Sierra Nevada Framework Forest Plan Amendment (SNFPA) is not intended to be a "one size fits all" approach. The goal is to ensure the ecological sustainability of the entire Sierra Nevada ecosystem and communities that depend on it. The SFNPA is designed to provide consistency in managing for sustaining desired environmental, economic, and social conditions across the Sierra Nevada. Actual implementation of management actions in response to the SNFPA will be designed using techniques that fit local conditions and will be based on input from local governments, landowners, businesses as well as other interested individuals and agencies. Project level analysis will be performed for each proposed action, with public involvement and detailed, site-specific environmental analysis.

1.5. Public Concern: *The Sierra Nevada forests should be managed with the oversight of regionally developed standards and guidelines. Individual forests and ranger districts should have less flexibility in the management of local forests.*

Response: In the Decision for the Appeals of the Record of Decision for the Sierra Nevada Forest Plan Amendment and its Final Environmental Impact Statement (November 16, 2001), the Chief of the Forest Service directed the Pacific Southwest Region to identify opportunities for "more flexibility in aggressive fuel treatment while still providing short-term and long-term protection for wildlife and other resource values." To respond to the Chief's direction, the Regional Forester chartered the SNFPA Review Team to identify needed changes to the existing Record of Decision. The Review Team found that "Field professionals across the Sierra Nevada have expressed concerns over their inability to create effective and cost-efficient fuels treatments. Moreover, the standards and guidelines did not move the project area toward the desired condition."

The SEIS preferred alternative (S2) proposes changes to specific elements of the existing SNFPA ROD (January 2001) based on the SNFPA Review Team's findings and recommendations. The SEIS preferred alternative (S2) analyzes the effects of providing uniform direction through standards and guidelines that provide field professionals the opportunity to move the project area toward the desired conditions.

The SEIS is a programmatic document that displays the effects implementing various policies and procedures. The management decision that is ultimately reached at this programmatic level will provide the sideboards within which local forests and districts will be required to follow in developing and analyzing the effects of implementing site-specific projects.

Public Involvement

1.6. Public Concern: *The Forest Service should solicit input from grazing permittees potentially affected by the SEIS.*

Response: The yearlong SNFPA Review was a transparent and highly collaborative process conducted by local Forest Service employees working with a host of key stakeholders, including elected officials, tribes, interest groups, and other government agencies. Insight was obtained from dozens of public meetings, workshops, and field trips held with employees, interest groups, scientists, other government agencies, journalists, and others. An Internet website and a biweekly electronic news brief were developed to keep the public informed throughout the review. The issues identified in the FEIS (Volume 1, Chapter 1, pages 12 through 16) reflect the broad areas of concern, debate, and disagreement that also surfaced during the review.

1.7. Public Concern: *The Forest Service should allow for a continuous review process of the Framework so that changes can be made based on the evaluations of previous actions. This review process should be periodic and provide for public input.*

Response: Both Alternatives S1 and S2 include a strong commitment to the Adaptive Management and Monitoring Strategy outlined in the SNFPA ROD and Appendix E of the SNFPA FEIS. The monitoring plan addresses key uncertainties related to the effects of management on ecosystem elements and processes.

The vision of the Sierra Nevada Framework for Conservation and Collaboration has been to develop an ongoing collaborative planning process that would continue long after the Record of Decision (ROD) is released. The Framework is working with State and other Federal agencies to explore a variety of

possibilities for institutionalizing the governance and management of the national forests in the Sierra Nevada.

*1.8. **Public Concern:** The Forest Service should increase outreach and public input efforts regarding the proposed amendment. A mechanism for continued public involvement should be developed.*

Response: Although no formal public scoping period was required or held for the SEIS, the proposed action is informed by the extensive and open public process used to complete the SNFPA review. The yearlong review was a transparent and highly collaborative process conducted by local Forest Service employees working with a host of key stakeholders, including elected officials, tribes, interest groups, and other government agencies. Insight was obtained from dozens of public meetings, workshops, and field trips held with employees, interest groups, scientists, other government agencies, journalists, and others. An Internet website and a biweekly electronic news brief were developed to keep the public informed throughout the review. The issues identified in the FEIS (Volume 1, Chapter 1, pages 12 through 16) reflect the broad areas of concern, debate, and disagreement that surfaced during the review.

Further and on-going public involvement will be undertaken as part of site specific planning and NEPA compliance for individual projects implemented under the forest plans as amended by the ROD for the FSEIS.

*1.9. **Public Concern:** The SEIS needs to better clarify the role of the Review Team in the development of the SEIS.*

Response: The Review Team reviewed the SNFPA FEIS and supporting documents. The Team gathered information from national forests implementing the 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.

During the course of the review, various analytical techniques were explored, information was collected and compiled, additional research findings were published, conservation assessments were developed, and field surveys were completed. The SNFPA Review Team's work is documented in *Sierra Nevada Forest Plan Amendment, Management Review and Recommendations* (March 2003). The interdisciplinary team used the Review Team's recommendations as the basis of the preferred alternative (Alternative S2) in the SEIS.

Editorial or Technical Comments

1.10. Public Concern: *A number of improvements could be made to the document to make its contents easier to understand: (1) the information in the document could be summarized with more tables and graphics; (2) the document should include summaries of the previous Framework FEIS and HFQLG decisions; (3) all interest groups involved in the preparation of the SEIS should be listed; (4) the number of respondents supporting each alternative should be listed; (5) Appendix B should be corrected; (6) forest specific effects analyses should be considered; and (7) standard and guideline effects should be listed separately for lands inside and outside the HFQLG Pilot Project area.*

Response: Comments regarding the readability of the Draft SEIS were considered when drafting the final document. The information presented in the Final SEIS is presented in tables and graphs to the greatest extent possible.

Decisions will be summarized in the FSEIS Record of Decision.

The Final SEIS identifies those involved in preparing the Final SEIS, and include distribution lists of those who participated or requested information concerning the development of the Final SEIS.

The Forest Service does not view public comment as a vote to select an alternative. Public comment is an opportunity for people to gain a better understanding of proposed alternatives, offer suggestions for improving or modifying those alternatives, and point out errors or omissions in the analysis. It is the Regional Forester's responsibility to make a well-informed, well-reasoned decision from all of the information available, including public comment, science, law, and regulation.

The Final SEIS (including appendices) has been updated and corrected based on comments and recommendations received during the comment period.

Chapter 4 of the Final SEIS displays the effects of the implementing the standards and guidelines inside and outside the HFQLG Pilot Project area.

1.11. Public Concern: *The Forest Plan Amendment should not characterize the Sierra Nevada management decision as "wicked." (PC 13)*

Response: The term 'wicked' Draft SEIS is taken from the scientific literature, where the term "wicked" is used to describe highly complex and controversial public problems. Some key characteristics of wicked problems (Allen and Gould 1986) include the following: (1) each stakeholder defines the problem differently; (2) outcomes are not always scientifically predictable; (3) the decision maker cannot know when all feasible and desirable solutions have been explored; (4) solutions are likely to be 'one-shot' and unique since resources, communities of interest, funds, and organizational capabilities combine with stakeholder demands come together in idiosyncratic ways; and (5) solutions are generally better or worse, rather than true or false.

Use of Science

*1.12. **Public Concern:** The Forest Service should analyze and justify its decision to favor long-term projections over short-term certainty.*

Response: The SNFPA SEIS maintains the Framework's long-term conservation goals, which include protecting, increasing, and perpetuating old forest ecosystems, protecting and restoring aquatic, riparian, and meadow ecosystems, reducing and reversing the spread of noxious weeds, and restoring and sustaining desired hardwood forest ecosystem conditions (DSEIS, pages 28 through 30).

Modeling long-term projections provides a basis for comparing alternatives. Models reveal relative differences between alternatives from different perspectives, both long- and short-term. Modeling projections are one of many considerations that inform decision makers and the public about the relative costs and benefits of various alternatives. Relative certainty related to short-term effects of alternatives shows only one aspect the true costs and benefits of various management strategies.

*1.13. **Public Concern:** The SEIS should be based on the best available scientific information. Scientific information should come from recommended groups or be peer reviewed. The SEIS analysis should not depend too heavily upon modeling.*

Response: The SNFPA FEIS and Draft SEIS use the best available science to inform decision makers and the public. Science consistency reviews, coordinated by the Pacific Southwest Research Station, were conducted for the FEIS and Draft SEIS. These reviews involved teams of scientists from the Forest Service, other agencies, and academia. Comments from the reviews subsequent to issuance of the Draft SEIS have been incorporated into the Final SEIS.

Various modeling techniques and programs have been used to provide visual and numerical representations of effects of applying different treatments across Sierra Nevada landscapes. However, the SEIS does not rely strictly upon modeling. Modeling is a mathematical tool that is utilized to help paint a picture allowing for comparison of alternatives and for assessing relative trends into the future. Models reveal relative differences between alternatives rather than absolute differences. Models can provide insight and aid in making a choice between alternatives. The Responsible Officials will evaluate information from modeling projections as well as other effects analyses prior to making a decision.

*1.14. **Public Concern:** The SEIS should not restrict resource-dependent activities, such as grazing and logging, without peer-reviewed science that demonstrates significant biological impacts stemming from these activities.*

Response: The tradeoffs between resource utilization (e.g. grazing, logging, recreation) and protection of species at risk in the Sierra Nevada has been characterized as a "wicked problem" (Walters, et al, 2003). Risks and uncertainties associated with all aspects of the decision and the lack of a clear consensus on public values and perceptions of risk do not lead to a single clear solution, only some responses that are better than others. The Forest Service must cope with the complexities and ambiguities associated with these wicked problems, through application of best available science and continuing dialogue among scientists, stakeholders, and decision makers

To do so, the Regional Forester has considered the "best available science" in the form of peer-reviewed science and recommendations of agency experts to develop standards and guidelines for resource management and establish a reasonable mix of outputs while reducing risks. The FSEIS and ROD also commits the Forest Service to an adaptive management strategy to "learn while doing," to minimize the adverse impacts on species and resource dependent industries.

Relation to or Consistency with Other Plans and Directives

1.15. Public Concern: *The Forest Plan Amendment should include the seven Framework standard and guideline exemptions for the Modoc National Forest found in the previous Record of Decision.*

Response: The planning area adopted for the Sierra Nevada Forest Plan Amendment corresponds to Study Area Boundary identified in SNEP (Status of the Modoc Plateau is considered to be within the range of the California spotted owl and other species at risk in the Sierra Nevada, FEIS, Volume 1, page 6). However, the SNFPA ROD did recognize that the Modoc National Forest had completed site-specific analysis, was implementing projects and programs, and faced unique conditions that were incorporated into the decision and allowed to continue as planned. The Review Team and the DSEIS did not recommend changing this direction.

During development of the Draft SEIS, Modoc County and the Modoc National Forest provided additional information concerning management of over 814,000 acres of sage steppe and juniper ecosystems that does not fit direction contained in the Sierra Nevada Forest Plan Amendment. Management of these areas is accomplished best under 1991 Modoc National Forest Plan management direction. The USDI Bureau of Land Management and the Forest Service are cooperating to assess these ecosystems and develop plans for specific management direction. Management direction contained in the Sierra Nevada Forest Plan Amendment is not appropriate for these ecosystems.

1.16. Public Concern: *The SEIS needs to better explain its relationship to the Healthy Forest Initiative (HFI). It should not be tiered to the HFI. It should analyze for any cumulative impacts of the HFI.*

Response: The changes to the existing SFNPA ROD (January 2001), as described in the Alternative S2 are designed to improve the ability of the Forest Service to reduce fuels and protect old forests, wildlife habitats, watersheds, and communities. As in the existing SNFPA ROD, the preferred alternative would continue to put emphasis on treatments in the wildland urban intermix (WUI) and treat sufficient area in the wildlands to ensure success in the urban interface. The tools provided by the Healthy Forest Initiative (http://www.fs.fed.us/projects/hfi/) will improve the Forest Service's ability to actively manage forests and reduce accumulations of hazardous fuels with greater speed and efficiency and better protect watersheds and habitat, particularly in combination with the changes proposed in the preferred alternative. The FSEIS addresses the Healthy Forest Initiative and its relationship to the alternatives.

1.17. Public Concern: *The SEIS should not restrict the implementation of the Herger-Feinstein Quincy Library Group (HFQLG) Pilot Project. The SEIS should consider the HFQLG principles for long-term management. The SEIS should provide opportunities to integrate lessons learned from the HFQLG projects.*

Response: The Herger-Feinstein Quincy Library Group (HFQLG) pilot project, developed under the HFQLG Forest Recovery Act (October 21, 1998), was designed to test and demonstrate the effectiveness of certain fuels and vegetation management activities in meeting ecologic, economic, and fuel reduction objectives. Fuels and vegetation management activities include constructing a strategic system of defensible fuels profile zones (DFPZs), group selection, and individual tree selection. A riparian management program is also included in the pilot project.

Activities in the HFQLG pilot project area are currently guided by standards and guidelines in the SNFPA ROD (January 2001), with the one exception that the Scientific Analysis Team (SAT) guidelines provide riparian conservation standards in the pilot project area. The HFQLG pilot project was designed to

provide information needed to reduce scientific uncertainty regarding the environmental outcomes of certain forest management activities. The SNFPA Review Team found that certain standards and guidelines in the existing SNFPA ROD prevented this learning from occurring, compromised the intended adaptive management strategy of the pilot project, and confounded the HFQLG Forest Recovery Act goal of commodity production. The preferred alternative (S2) in the SEIS reflects the SNFPA Review Team's recommendations relative to harmonizing the goals of the Herger-Feinstein Quincy Library Group (HFQLG) pilot project and the SNFPA.

The preferred alternative would allow defensible fuel profile zone (DFPZ) construction, group selection, and singletree selection in suitable California spotted owl habitat. It would also allow DFPZ construction in Late Succession/Old Growth (LSOG) 4 and 5 areas with direction to avoid constructing DFPZs in stands classified as CWHR types 5M, 5D, and 6 within the LSOG 4 and 5 areas. HFQLG resource management activities (DFPZ, group selection, individual tree selection, and HFQLG riparian restoration projects) and timber harvesting would not be allowed within spotted owl protected activity centers (PACs) and spotted owl habitat areas (SOHAs).

While the acreage of DFPZs is the same under the existing direction and the preferred alternative, the effectiveness of DFPZ treatments under the preferred alternative is expected to be much greater. The preferred alternative allows an annual rate of group selection regeneration commensurate with the level specified in the HFQLG Forest Recovery Act.

Discussion in the SEIS (Chapter 4)discloses potential effects on habitat for the California spotted owl within the HFQLG pilot project area and across the Sierra Nevada bioregion under existing direction (Alternative S1) and proposed changes (Alternative S2, the preferred alternative).

*1.18. **Public Concern:** The SEIS should justify the rationale to support full implementation of the HFQLG Pilot Project.*

Response: Prior to the SNFPA, Congress passed legislation directing the Forest Service to implement the HFQLG Pilot Project to test the effectiveness of certain forest resource management activities. The Pilot Project represents a "locally-developed, consensus-based resource management program." A review of the congressional record shows that there was an understanding of the untested nature of some forest management activities included in the HFQLG Pilot Project. In addition, there was also considerable discussion of the scientific uncertainty regarding the environmental outcomes of those activities. The intent was that the HFQLG Pilot Project would provide information needed to reduce this uncertainty, and ascertain if the proposed resource management activities created beneficial outcomes.

By extending the legislation through 2009, Congress re-affirmed its direction to fully implement the HFQLG Pilot Project to test the effectiveness of the resource management activities. The SNFPA Review Team found that the SNFPA ROD restricted the forests' ability to meet Congressional intent; therefore, the SEIS preferred alternative (S2) included the provision for full implementation of the HFQLG Pilot Project.

*1.19. **Public Concern:** The Forest Service should ensure the SEIS does not negatively impact the Giant Sequoia National Monument.*

Response: The Sequoia National Forest is currently preparing a new management plan for the Giant Sequoia National Monument. That plan and subsequent amendment to the Sequoia Forest Plan will include management direction specific to the monument area and the values for which the monument was created.

*1.20. **Public Concern:** The SEIS should explain how it would meet the goals of the National Fire Plan and the California Fire Plan.*

Response: Both Alternatives S1 and S2 would focus fuels treatments in support of the National and State Fire Plans by emphasizing treatments in the wildland urban intermix while protecting sensitive species habitats and late seral forest conditions. The SEIS discusses the National and California Fire Plans (DSEIS page 143), and the Final SEIS includes a discussion of the National Fire Plan in the Fire and Fuels section in Chapter 3.

Relation to Laws, Acts and Polices

*1.21. **Public Concern:** The Forest Service should complete the requisite Civil Rights Impact Analysis or Civil Rights Impact Statement before publishing the Final SEIS.*

Response: The FEIS social impact and civil rights analysis is considered valid and meets the intent for the SEIS. Socio-economic effects of the alternatives are discussed in appropriate resource areas in Chapter 3 of the FEIS. Updated bioregional social and economic information is analyzed and documented in the Final SEIS (Chapter 4). Updated information has been analyzed and documented in the Final SEIS, Chapter 4 under appropriate resource areas.

2. Alternatives

Alternatives, General

2.1. Public Concern: *The Forest Service should write the Final SEIS in plain, clear language.*

Response: Comments regarding the readability of the document were considered when drafting the final SEIS to improve readability and clarity.

2.2. Public Concern: *The Final SEIS should clarify that there is one preferred alternative.*

Response: The Draft SEIS identifies only one preferred alternative (S2). The Final SEIS also makes this clear. The Draft SEIS provides a detailed analysis for two alternatives and summarizes the detailed analysis of the Alternatives F2 through F8 from the SNFPA FEIS. The environmental consequences for the original SNFPA alternatives are described in detail in the SNFPA FEIS and are not repeated in the SEIS. Alternative S1 would continue management under the existing SNFPA Record of Decision (ROD, January 2001). Alternative S2 proposes changes to specific elements of the existing ROD as described in Chapter 2 of the SEIS.

2.3. Public Concern: *The Final SEIS should improve the analysis to distinguish between the various alternatives. The Draft SEIS analysis of alternatives F2 through F8 is conducted through reference to the FEIS and does not appear to include an updated analysis based on the purpose and need and new information which triggered the review. These procedural problems hinder the document's ability to support a decision under NEPA.*

Response: SNFPA alternative development included extensive collaboration and feedback from non-governmental organizations, interest groups, other government agencies, and participants in public meetings to ensure a full range of alternatives (See FEIS Chapters 1 and 2.). For the SEIS, the purpose was not to reconsider broad changes in overall program direction. The SEIS was initiated to incorporate new information and adjust the management direction in the existing SNFPA ROD to better achieve the goals of the SNFPA. This new information has resulted in some minor adjustments to assumptions about how work can be completed on the ground as well as the effects of implementing prevailing management direction. The SEIS relies very heavily upon the analysis presented in the FEIS and incorporates that information rather than repeating it. The analysis of effects for Alternatives F2 through F8 and Modified F8 can be found in the SNFPA FEIS and ROD.

The environmental consequences for the Alternatives F2 through F8 and Modified F8 were described in detail in the FEIS (Volumes 2 and 3, Chapter 3). The SEIS compares the environmental consequences associated with modifications (Alternative S2) to existing management (Alternative S1). Chapter 4 of the FSEIS provides more specific information for resources that could be sensitive to differences between alternatives. The Final SEIS provides comparative data for each alternative, based on the best available information for each affected resource.

*2.4. **Public Concern:** The Final SEIS should include a comparative analysis of the alternatives' implementation costs and social and economic impacts to the public.*

Response: An extensive assessment of the social and economic effects of the alternatives is provided in Chapter 3, Part 6 of the FEIS (Volume 2, pages 534-567). Forest Service budget projections were addressed for the programs in the FEIS analysis in Section 6.4 (Volume 2, pages 3-549 to 3-551). Cost efficiency associated with implementing fuels treatments is a reflection, in part, of the types of treatments, the number of acres treated, the cost per acre of the treatments, and any revenues generated by the treatments. The Final SEIS includes an expanded comparative analysis of cost efficiency associated with fuel treatments under Alternatives S1 and S2.

Projections indicate that neither Alternative S1 nor S2 is expected to generate sufficient revenue to fully cover the costs associated with fuel treatments. It is difficult to predict actual funding in future years as this is a decision made by Congress for each fiscal year. The Forest Service uses the program cost projections to request funds from Congress. Funding for each fiscal year will vary as Congress considers current issues and balances Forest Service requests with other national priorities. If full funding for implementation and monitoring is not available, Forest Service officials develop priorities for funding. It is the intent of the Forest Service to develop these priorities in a collaborative environment with the public and other government agencies. In the development of the Final SEIS, the issue of funding has been considered in more detail. Cost estimates have been refined and reflected in Forest Service budget projections. The monitoring and adaptive management plan has been evaluated to develop less costly ways to achieve desired monitoring results and to focus monitoring efforts. The interdisciplinary team has worked to make the alternatives feasible to implement through refinements in the standards and guidelines.

*2.5. **Public Concern:** The SEIS should include a broader range of alternatives.*

Response: Each action alternative in the SNFPA FEIS was designed around a theme for managing old forest ecosystems; aquatic, riparian, and meadow ecosystems; fire and fuels; noxious weeds; and hardwood forest ecosystems, and to respond to one or more of the significant issues. Alternative formulation by the Interdisciplinary Team included extensive collaboration with and feedback from non-governmental organizations, interest groups, other government agencies, and participants in public meetings to ensure a range of alternatives. This process is described in the FEIS Chapters 1 and 2, especially pages 4 through 7 and 12 through 16 in Chapter 1 and pages 2 through 17 in Chapter 2.

Under the National Environmental Policy Act, environmental analyses must consider a range of alternatives that address the significant issues and meet the need for the proposed action. The alternatives in the SNFPA FEIS represent a range of alternatives. The SEIS supplements the FEIS, bringing the action alternatives from the FEIS forward as alternatives considered in detail (DSEIS, page 38). The SEIS compares two additional alternatives (Alternatives S1 and S2) in light of the purpose and need to consider adjustments to the existing SNFPA Record of Decision to improve the likelihood of meeting existing goals and objectives.

*2.6. **Public Concern:** The timber volumes associated with the alternatives in the Draft SEIS are not the same as those in the SNFPA FEIS. Total timber harvests for both Alternatives S1 and S2 in the Draft SEIS are somewhat less, and sawtimber harvests are slightly more. The Final SEIS should resolve these discrepancies.*

Response: Differences in projected timber harvest outputs between the FEIS and Draft SEIS are due several reasons:

The analysis of Alternative S1 in the Draft SEIS was designed to be consistent with management direction for Modified Alternative 8 as implemented through the SNFPA ROD. The ROD included

constraints that were not analyzed for Modified Alternative 8 in the FEIS, for example leaving 10 to 25 percent of the acres projected for mechanical treatments in an untreated condition (SNFPA ROD, pages A-26, A-41, A-44, A-46, and A-47). Adding in these constraints reduced timber outputs for Alternative S1 compared to Modified Alternative 8 as analyzed in the FEIS.

Since the time that the SNFPA ROD was signed in January 2001, significant discoveries were made regarding fuel treatments. Two large landscape analyses based on management direction in the SNFPA ROD revealed that fuels treatment units should be strategically located across broad landscapes to effectively interrupt fire spread. Hence, the SEIS analyzes strategically placed treatment areas across landscapes to resemble a herringbone or tread pattern which more closely matches the pattern based on Dr. Mark Finney's work as described in Appendix J of the FEIS (SEIS, Appendix B). The analysis in the FEIS located strategically placed area treatments nearly exclusively on the upper two-thirds of south- and west-facing slopes. This means different mixes of stands are being treated under both Alternatives S1 and S2 compared to alternatives that adopted a SPLAT strategy in the FEIS (Alternatives 3, 4, 5, 6, 7, 8, and Modified 8), even when the total acres treated are very similar. In addition, since the ROD was signed, managers on each national forest have remapped and adjusted their wildland urban intermix zones (defense and threat zones), based on SNFPA ROD direction for locally determining the locations and boundaries of this land allocations. The analysis in the SEIS is based on these locally determined defense and threat zones, which were not available for the analysis in the FEIS.

The model considers timber production as a by-product of the management program. Therefore, timber production is not a consideration when the model selects among multiple prescriptions that are permissive on a given land allocation. Objectives other than timber output are driving the analysis. Therefore, since there are a multiple ways of doing a fuels treatment, individual model runs often produce slightly different outputs for the same management program.

The Final SEIS modeling appendix (B) describes the assumptions linked to timber harvest outputs in greater detail.

*2.7. **Public Concern:** The Forest Service should consider the practicality of the standards and guidelines when selecting an alternative.*

Response: Implementation issues associated with standards and guidelines in the existing SNFPA ROD were addressed during the SNFPA review. Management recommendations for changes to the existing direction for Sierra Nevada national forests considered the feasibility and ease of implementing modified and new standards and guidelines. The ability to implement standards and guidelines is of the utmost importance to the Forest Service.

*2.8. **Public Concern:** The Forest Service should develop management prescriptions on a case by case basis for each different ecosystem.*

Response: The Sierra Nevada Forest Plan Amendment is not intended to be a "one size fits all" policy. The SNFPA was designed to provide consistency in managing for sustaining desired environmental, economic, and social conditions across the Sierra Nevada. Actual implementation of management actions based on SNFPA direction would be designed using techniques that fit local conditions and would be based on input from local governments, landowners, businesses as well as other interested individuals and agencies. The proposed changes to the existing SNFPA ROD described in the SEIS were developed to provide additional flexibility for adjusting management practices to respond to different site conditions and local knowledge. Project-level planning would be conducted for each proposed action, and would include public involvement and detailed, site-specific environmental analysis.

*2.9 **Public Concern:** The Forest Service should formalize the Middle Fork Cosumnes analysis process as an alternative focused on developing locally appropriate management prescriptions.*

Response: The description of Alternative S2 (the preferred alternative) in Final SEIS includes management direction for conducting an analysis process similar to that developed for the Middle Fork Cosumnes during the SNFPA Review to strategically locate fuels treatments and develop locally appropriate management prescriptions. In addition, project-level planning would be conducted for each proposed action, and would include public involvement and detailed, site-specific environmental analysis.

*2.10. **Public Concern:** The Forest Service should adopt the alternative that pursues an aggressive fuels treatment program. The Forest Service should adopt the alternative that provides fuel treatments to the greatest number of acres.*

Response: The SEIS preferred alternative (Alternative S2) is based on the SNFPA Review Team's recommendations in response to direction from the Chief and Regional Forester to "identify opportunities to pursue more aggressive fuels treatments while protecting old forest conditions and species at risk." Yet, the agency must plan for programs that are within anticipated budgets provided by Congress. Alternative S2 in the SEIS was developed to provide opportunities to reduce hazardous fuels over more acres by using the revenues from the harvest of some larger trees to help cover the costs.

*2.11. **Public Concern:** The SEIS should detail how each alternative will accomplish fuel reductions to reach condition class one.*

Response: The SEIS describes how Alternatives S1 and S2 share overarching goals for fire and fuels management that includes meeting ecological goals for re-introducing fire. Strategically placed area treatments are first designed to change landscape wildland fire behavior; over time the goal of the treatments shifts toward restoring fire regimes and condition class across the landscape. The Final SEIS includes an analysis of the effectiveness of treatments in modifying fire behavior across landscapes which then facilitates the re-establishment of fire as a process. The use of fire as the follow-up/maintenance treatment is intended to provide for the process restoration in treated areas.

*2.12. **Public Concern**: The Final SEIS should include stand and landscape level analyses to illustrate fire suppression efficiency differences for Alternatives S1 and S2.*

Response: The SNFPA FEIS (Volume 2, Chapter 3, part 3.5) discloses the long-range effects of fire suppression combined with limited fuel treatments on fire effects and fire intensity. It also describes various fuels treatment methodologies and the costs of fire suppression. The "Environmental Consequences" section displays reductions in projected acres burned under each alternative, and it also discusses the effectiveness of treating surface, ladder, and crown fuels. The SEIS displays projected wildfire acres burned and severity of effects under Alternatives S1 and S2. The Final SEIS l includes a discussion of treatment effectiveness.

2.13. Public Concern: *Without explanation or supporting evidence, the analysis in the Draft SEIS assigns greater risk to mechanical treatments than no treatment or prescribed fire. This is inconsistent with the assigned risk of wildfire, which has the greatest degree of uncertainty. Alternatives with the highest risk of wildfire rank lowest in the Draft SEIS's assessment of risk. This runs contrary to the purpose of the Draft SEIS. The Final SEIS risk assessment should include an assessment of risk based on the estimated acres disturbed by wildfire.*

Response: The Draft SEIS does address potential risks associated with projected wildfire acres burned and the severity of wildfire effects. (See wildfire effects for Old Forest Ecosystems on page 149 of the Draft SEIS, Forest and Vegetation Health on pages 156 and 158, Aquatic, Riparian, and Meadow Ecosystems on pages 159 and 160, Fire and Fuels on pages 161 through 164, Noxious Weeds on page 166, Fisher on page 175, Marten on page 180, and California spotted owl on pages 191 and 192.) The Draft SEIS analysis indicates that differences in projected wildland fire acres between Alternatives S1 and S2 vary over time, with the greatest differences projected to occur 50 to 80 years into the future (DSEIS, pages 162 and 163). Under Alternative S2, habitat projections for California spotted owls benefit from reductions in wildfire acres burned and severity of effects by the fifth decade (DSEIS, page 194). Much of the change in fire effects is not projected to show until after the 20-year analysis horizon, and there is greater uncertainty in the outcome of longer-term effects. The Final SEIS includes refinements to discussions of risks associated with projected wildland fires on old forest ecosystems, aquatic, riparian, and meadow ecosystems, and species associated with these ecosystems.

2.14. Public Concern: *The Forest Service should adopt the favorable elements from other alternatives that would provide the greatest decline in wildfire acres, greatest increase in old forest conditions, and the greatest economic benefit.*

Response: The alternatives in the SNFPA FEIS represent a range of alternatives to meet the stated purpose and need (FEIS, Volume 1, Chapter 1, pages 4 through 7). The FEIS describes the process used to develop the alternatives (FEIS, Volume 1, Chapter 2, pages 5 through 17). The SEIS supplements the FEIS, bringing the action alternatives from the FEIS forward as alternatives considered in detail. The SEIS compares two additional alternatives (Alternatives S1 and S2) in light of the purpose and need to consider adjustments to the existing Record of Decision to improve the likelihood of meeting the goals and objectives of the Sierra Nevada Forest Plan Amendment. The Responsible Official will consider projected effects, risks, costs, and uncertainties associated with each of these alternatives in formulating a decision that addresses the need to reduce the buildup of excessive forest fuels and the need to conserve key habitats for at-risk species associated with old forest ecosystems

2.15. Public Concern: *The Final SEIS should include road construction, reconstruction, and maintenance cost estimates for each of the alternatives.*

Response: Road construction costs associated with Alternatives S1 and S2 have been added to the Final SEIS.

2.16. Public Concern: *The Forest Service should only consider alternatives that adhere to the Chief's direction to refine, not re-write, the Framework.*

Response: The Pacific Southwest Region of the Forest Service has met the intent of the Chief's appeal decision and work plan. The Forest Service received more than 200 appeals of the ROD. The Chief affirmed the ROD but directed the Regional Forester of the Pacific Southwest Region (Regional Forester)

to review certain elements of the decision. The Regional Forester and SEIS interdisciplinary team have worked closely with the Chief and his staff to assure consistency with the intent of the appeal decision.

On December 26, 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. On December 31, 2001 the Regional Forester chartered the SNFPA Review Team (Team) to evaluate the SNFPA ROD and recommend any needed changes in six specific areas.

- 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 appeals record and the Chief's appeal decision. 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 findings of the year-long review are acknowledged in the SEIS. The review is documented in Sierra Nevada Forest Plan Amendment, Management Review and Recommendations (USDA Forest Service Pacific Southwest Region 2003).

*2.17. **Public Concern:** The Forest Service should consider alternatives submitted by outside parties.*

Response: All alternatives, including those proposed by the public, collaborators, and internal Forest Service staff, were given consideration. The process for developing the alternatives is described in the FEIS, Volume 1, Chapter 2, pages 2 through 17. Several of the alternatives in the FEIS are based on material submitted by outside parties during scoping, but they are Forest Service alternatives. Similarly, Alternatives S2 and S3 were developed by the Forest Service, after seeking input for many external sources. Alternative S3 was eliminated from detailed analysis in the Final SEIS because it does not differ significantly from Alternative S1.

*2.18. **Public Concern:** The Forest Service should develop a range of alternatives designed to overcome fuel management funding shortfalls.*

Response: It is difficult to predict actual funding in future years as this is a decision made by Congress for each fiscal year. The Forest Service uses the program cost projections to request funds from Congress. Funding for each fiscal year will vary as Congress considers current issues and balances Forest Service requests with other national priorities. If full funding for implementation and monitoring is not available, Forest Service officials develop priorities for funding. It is the intent of the Forest Service to develop these priorities in a collaborative environment with the public and other government agencies. In the development of the Final SEIS, the issue of funding has been considered in more detail. Cost estimates have been refined and reflected in Forest Service budget projections. The monitoring and adaptive management plan has been evaluated to develop less costly ways to achieve desired monitoring results

and to focus monitoring efforts. The interdisciplinary team has worked to make the alternatives feasible to implement through refinements in the standards and guidelines.

The agency must plan for programs that are within anticipated budgets provided by Congress. Alternative S2 in the DSEIS was developed to provide opportunities to reduce hazardous fuels over more acres by using the revenues from the harvest of some larger trees to help cover the costs of fuels treatments.

*2.19. **Public Concern:** The SEIS should include stronger protection measures for amphibians in each of the alternatives.*

Response: Sierra Nevada Forest Plan Amendment Project goals include protecting and restoring desired conditions of aquatic, riparian, and meadow ecosystems in Sierra Nevada national forests and providing for the viability of species associated with these ecosystems (DSEIS, page 29). The 10 alternatives considered in detail in the SEIS represent different approaches for achieving these goals. All of the alternatives provide various protection measures for amphibians, ranging from alternatives with high degrees of local flexibility to develop protection measures based on local conditions to alternatives with less local flexibility, which rely on protection measures developed at the bioregional scale. Most alternatives use a mix of these approaches.

Alternatives S1 and S2 share similar protection measures, with a key difference being that, under Alternative S2, local managers have the option of developing a site-specific management plan to minimize impacts to the Yosemite toad and its habitat by managing the movement of livestock around wet areas. In addition, the Final SEIS description of Alternative S2's adaptive management and monitoring strategy includes provisions for adaptive management studies in four to six grazing allotments most heavily impacted by Yosemite toad grazing exclusion standards. Appendix A in the Draft SEIS presents standards and guidelines for aquatic habitats and amphibians for Alternative S1 and S2; Appendix D in the FEIS presents standards and guidelines for the other alternatives.

*2.20. **Public Concern:** The Forest Service should develop an alternative that prioritizes watershed management.*

Response: Alternatives S1 and S2 include Aquatic Management Strategy (AMS) goals and riparian conservation objectives. The fundamental principle of the AMS is to retain, restore, and protect processes and landforms that provide habitat for aquatic and riparian-dependent organisms, and provide and deliver high-quality waters for which the national forests were established (SNFPA ROD, page A-5). The Forest Service works with the CALFED program and is active in seeking Proposition 50 funding with local and State agencies as well as local watershed groups and non governmental organizations. Collaborative stewardship is an important Forest Service goal in managing the Sierra Nevada forests, and the Forest Service welcomes the participation of State and Federal agencies in working together to enhance and improve watersheds.

*2.21. **Public Concern:** The Forest Service should replace five of the existing alternatives with new alternatives that promote timber harvest and benefits to local economies.*

Response: The purpose of the SNFPA FEIS and the SEIS is to address the management of five identified problem areas: old forest ecosystems and their associated species; aquatic, riparian and meadow ecosystems; fire and fuels management; noxious weeds; and lower westside hardwood ecosystems. The purpose of the amendment is not to promote logging or other commercial activities, per se. The Sierra Nevada Review Team did recognize the production of wood by-products of mechanical thinning as an economic opportunity for local communities (DSEIS page 30).

2.22. Public Concern: *The Forest Service should fully develop and consider Alternative 2.2.6 "Make Minor Changes to Individual Standards and Guidelines." The Forest Service could use the Middle Fork Cosumnes analysis effort as an example as to how standards and guidelines could be modified.*

Response: Comments regarding the utility of the Middle Fork Cosumnes analysis effort are appreciated. The Middle Fork Cosumnes analysis helped the SNFPA Review Team identify implementation problems with certain SNFPA ROD standards and guidelines; however, the Review Team was directed to look for opportunities to improve a broader scope of management direction, for example, consequences to recreation users, recreation permit holders, and grazing permit holders as well as fire and wildlife interactions. Alternative 2.2.6 did not address the fundamental problems of the prescriptive nature of the existing management direction (economic inefficiencies, complications with implementation, questionable effectiveness of fuels treatments, and inability to treat enough acreage with available funds to effectively modify fire behavior or be responsive to the goals of the National Fire Plan). Moreover, the suggested alternative would not provide local managers with the flexibility needed to choose from an array of tools and techniques to better address site-specific conditions.

2.23. Public Concern: *The Forest Service should select an alternative that: restores Sierra Nevada forests to pre-settlement conditions; improves short-term fire protections with strategic fuel reduction; simultaneously with fuel reduction, restructures forest to meets restoration goals; makes use of all available tools, including vigorous, well-regulated commercial timber harvest; and prioritizes cost-effectiveness.*

Response: While forest and ecosystem health can be ambiguous terms, the intent for Alternative S2 is to restore conditions that would provide greater resilience to drought, climate change and related potential for severe insect/pathogen mortality events (DSEIS, page 45). Treatments to improve forest and ecosystem health and increase resilience to drought and other stressors will likely mimic pre-settlement conditions. In addition, desired conditions for old forest emphasis areas and general forest are aimed at developing forest structures and functions resembling pre-settlement conditions. This is described in greater detail in the Final SEIS.

Protecting life and property from wildfire is a priority of the National Fire Plan and the SNFPA, including the SEIS. To protect lives and property most effectively in the short-term, during the first 5 years of implementation of Alternative S2, 75 percent of fuels treatments would be conducted in the Wildland Urban Intermix (WUI) (DSEIS, page 46).

Concerning the comment on the need for a well-regulated timber program: Alternative S2 recognizes that all managerial tools, including commercial timber sales, are needed for effective fuels management. Alternative S2 provides mechanisms that allow fuels and forest health treatments to generate revenues through commercial forest products to increase the number of acres that can be treated with the available appropriated funds (DSEIS, page 47).

Alternatives, Specific

2.24. Public Concern: *The Forest Service should adopt the No Action Alternative.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.25. **Public Concern:** The Forest Service should adopt a modified No Action Alternative to ease implementation.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.26. **Public Concern**: The Forest Service should Adopt Alternative S2.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.27. **Public Concern:** The FSEIS should clearly explain the rationale for selecting Alternative S2.*

Response: No alternative has been selected. Alternative S2 was identified as the preferred alternative in the Draft SEIS. However, only the deciding official, who is the Regional Forester in this case, can select an alternative for implementation. He will do so, with a full explanation of the rationale for his decision in the Record of Decision.

*2.28. **Public Concern:** The Forest Service should not select Alternative S2.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.29 **Public Concern:** The FSEIS should explain the reasons for supporting Alternative S2, which closely resembles Alternative F6, an alternative that was rejected in the SNFPA FEIS.*

Response: Alternative F6 emphasizes the use of prescribed fire as initial treatments to accomplish the fuels reduction, while alternative S2 reduces the emphasis on prescribed burning for initial treatments and encourages mechanical treatment consistent with the Standards and Guidelines. Alternative S2 standards and guidelines for mechanical treatments provide more flexibility to actually move toward the established desired conditions. The Background section (DSEIS Summary, page 1) describes the chartering of the SNFPA Review Team and the information they were directed to evaluate. The insights gained through the yearlong review is explicitly addressed in the SEIS and their report, *Sierra Nevada Forest Plan Amendment, Management Review and Recommendations* (March 2003), is incorporated by reference. The new information gained through this review as well as two years of field implementation identified adjustments that needed to be made to better implement the goals of the Sierra Nevada Forest Plan Amendment.

*2.30. **Public Concern:** The FSEIS should support its statement that the economic value of more timber products will improve its ability to treat more acres of hazardous fuels than it can under existing direction (Alternative S1).*

Response: The Fire and Fuels Management section in the Final SEIS includes an expanded discussion regarding the economics of fuels treatments to address this concern.

*2.31. **Public Concern:** The FSEIS should illustrate how Alternative S2 meets National Fire Plan performance measures.*

Response: The SEIS describes how Alternatives S1 and S2 share overarching goals for fire and fuels management, which include meeting ecological goals for re-introducing fire. Strategically placed area treatments are first designed to change landscape wildland fire behavior; over time the goal of the treatments shifts toward restoring fire regimes and condition class across the landscape.

The Fire and Fuels Management section in the Final SEIS discusses the effectiveness of treatments in modifying fire behavior across landscapes which then facilitates the re-establishment of fire as an ecosystem process. The use of fire as a follow-up and maintenance fuels treatment is intended to provide for re–introducing fire in treated areas.

The Final SEIS expands on the discussion regarding fire and fuels program uncertainties. The Fire Surrogate Study is mentioned in the discussion about uncertainty of mechanical treatments as a surrogate for fire as an ecosystem process. Alternative S2 reduces the emphasis on prescribed burning for initial treatments and encourages mechanical treatment consistent with the standards and guidelines. The location of fuels projects can include emphasizing treatments in condition classes 2 and 3.

*2.32. **Public Concern:** The FSEIS should include analysis of the Preferred Alternative's impacts to ranch income, ranch employment, value of base property, and development pressure on permit holders.*

Response: The Draft SEIS (pages 235 through 236) provides an analysis of effects associated with Alternative S2 on grazing permittees. The level of effects on individual permittees is characterized as "low", "medium" or "high," depending on how allotment boundaries overlap habitat areas for the Yosemite toad, willow flycatcher or the great gray owl. A sampling of 47 allotments on 11 National Forests was analyzed to determine the relative effects of Alternatives S1 and S2. The sample consists of the allotments most affected by the standards and guidelines for Yosemite toad, willow flycatcher, and great gray owl habitat. This comparison shows a decrease in potential effects to permittees if changes proposed in the preferred alternative were implemented. Any attempts to predict how alternatives might render traditional base ranch operations non-viable would be highly speculative. For each individual allotment, additional resource condition and economic analyses would be conducted at the local level during the permit renewal process.

*2.33. **Public Concern:** The FEIS (Volume 3, Chapter 3, Part 4.4, page 216) states: "Alternative S2 would provide for an amphibian reserve system." Please provide information on how these reserves would be established; what guidelines would be used and under what circumstances the reserves could be altered.*

Response: Alternative 2 from the SNFPA FEIS is carried forward as Alternative F2 in the SEIS. Alternative F2 provides for an amphibian reserve system. Alternative S2 provides direction for managing critical aquatic refuges (CARs), which are subwatersheds that contain either known locations of threatened, endangered, or sensitive species; highly vulnerable populations of native plant or animal species; or localized populations of rare native aquatic- or riparian-dependent plant or animal species. Management standards and guidelines for critical aquatic refuges are identical to those for riparian conservation areas. (See Appendix A of the FSEIS.) Twenty-one critical aquatic refuges have been established in Sierra Nevada national forests for the mountain yellow-legged frog (DSEIS, page 216). Appendix I of the FEIS (Volume 4, Appendix I, page 52 through100) displays specific locations of CARs and identifies the species each CAR is designed to protect. Each national forest has responsibility for assessing the conditions of CARs within the forest boundary and for planning and implementing

restoration actions. Proposed restoration actions would be planned at the project-scale, with site-specific environmental analysis and public involvement.

*2.34. **Public Concern:** The Final SEIS should explain how Alternative S2 clarifies Alternative S1 and S3 direction to apply limited operating periods to "vegetation treatments and not recreation-related activities."*

Response: The Draft SEIS states, "Under Alternative S2, limited operating periods apply only to vegetation management activities and there would be no effect to recreation" (DSEIS, page 238). Appendix A of the Draft SEIS provides a comparison of Alternative S1 and S2 standards and guidelines related to limited operating periods on pages 285, 286, 294, 295, and 297. Where limited operating periods are required, the standards and guidelines explicitly describe the types of projects that are affected and if and when the standard may be waived. (Alternative S3 has been eliminated from detailed consideration in the Final SEIS because it does not differ significantly from Alternative S1.)

*2.35. **Public Concern:** The Final SEIS should explain why Alternative S2 removes "Each National Forest may designated where OHV use is allowed" from Alternative S1.*

Response: The language for this standard and guideline in Alternative S2 is proposed to clarify direction on management of OHV use and make it consistent with the standard used for analysis of environmental consequences of alternatives in the FEIS. (See FEIS Volume 4, Appendix D-4, All Alternatives – All Allocations, standard and guideline R09). Alternative S2 also makes the direction consistent with a number of responses to public comments on the DEIS, which state, "Under the FEIS preferred alternative, wheeled off-highway vehicle (OHV) travel is prohibited off of designated routes or outside of designated OHV open areas" (For example, see FEIS, Volume 5, page 3-424, response #125). In addition, since the ROD for the Sierra Nevada Forest Plan Amendment was signed, the Regional Forester has signed a Memorandum of Intent (MOI) with the State of California Off Highway Motor Vehicle Recreation Commission. This MOI includes an agreement to prohibit wheeled vehicles off designated roads, trails, or specifically defined open areas. It is understood that these designations will be made by the Forest Supervisor of each national forest in accordance with Forest Service policy and regulations. The standard and guideline for OHV use in Alternative S2 is consistent with the original FEIS, response to public comments, and the MOI.

*2.36. **Public Concern:** The Forest Service should adopt Alternative S3.*

Response: Alternative S3 has been eliminated from detailed consideration in the Final SEIS because it does not differ significantly from Alternative S1. Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.37. **Public Concern**: The Forest Service should adopt Alternative F2.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.38 **Public Concern:** The Forest Service should adopt Alternative F4.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such

information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.39. **Public Concern:** The Forest Service should use the elements of Alternative F4 relating to fuels management and recreational activities. The elements in Alternative F4 that reduce lethal acres burned should be evaluated and incorporated into the final alternative.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.40. **Public Concern:** The Forest Service should adopt Alternative F5.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.41. **Public Concern:** The Forest Service should adopt Alternative F6.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*2.42. **Public Concern**: The FSEIS should incorporate features from Alternative F7 to ease implementation.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

3. American Indians and Tribes

American Indian Use of Public Lands

3.1 Public Concern: *The SEIS should ensure protection of cultural materials and sacred sites.*

Response: The SEIS retains the SNFPA ROD commitments to meet trust responsibilities and encourage American Indian participation in national forest management. The Final SEIS makes the following statement: "Those commitments will continue as part of any decision made regarding management of Sierra Nevada national forests. The Forest Service will continue to consult with potentially affected tribes in planning specific resource management projects." (FSEIS, Chapter 1, Section 7).

4. Environmental Values

General

4.1. Public Concern: *The Forest Service should preserve and restore the Sierra Nevada national forests as a national treasure. Sierra Nevada national forests have been affected by fire suppression, timber harvesting, livestock grazing, and climate change, which has increased the fire hazard and reduced regeneration of the shade-intolerant tree species. Once restored, these forests need to be maintained. We should learn from countries like Africa, where lands have been stripped of trees and water cycles interrupted, and where people suffer from drought, flood, and starvation. We should not allow short-term economics to take precedence over long-term vision for the world's ecosystems.*

Response: Sierra Nevada national forests are indeed a national treasure, and fire exclusion, timber harvesting, livestock grazing, and climate change have affected them. The SNFPA Final EIS and the SEIS analyze a range of alternatives. Each alternative is designed to manage forest vegetation to meet goals of restoring old forest ecosystems and providing habitat for species associated with these ecosystems while addressing the need to reduce the threat of large, severe wildland fires in Sierra Nevada national forests. None of the alternatives analyzed would strip the land of trees or interrupt the water cycle. The SEIS proposed action maintains the Sierra Nevada Framework's conservation goals, which include protecting, increasing, and perpetuating old forest ecosystems, protecting and restoring aquatic, riparian, and meadow ecosystems, reducing and reversing the spread of noxious weeds, and restoring and sustaining desired hardwood forest ecosystem conditions (SEIS, Purpose and Need for Action).

4.2. Public Concern: *The Final SEIS should utilize ecological risk assessment. The Draft SEIS states, "Ecological risk assessment has decreasing utility as an input into policymaking" (DSEIS, page 37). This statement by the authors of the Draft Supplemental Environmental Impact Statement is particularly alarming. Are we to replace scientific ecological risk assessment with biblical prophecy and timber industry earnings projections?*

Response: The SEIS states, "Clearly some public problems are more difficult to resolve than others. Renn (1995) suggests that environmental debates operate at three levels, and that ecological risk assessment has *decreasing utility* as an input into policymaking as levels of complexity and conflict increase" (DSEIS, page 37). The document goes on to state: "Consequently, technical analyses alone, which do not integrate social values and deliberation, cannot provide an adequate decision-support framework. ….and significant dialog among scientists, stakeholders, and decision makers is needed."

Physical Elements

4.3. Public Concern: *The Final SEIS should define landscape analysis including the size of land areas and timeframes for completing landscape analysis, as well as any standards and guides to be used.*

Response: As described in the SNFPA Final EIS (Volume 1, Chapter 2, Page 165): "Landscape analysis is conducted to evaluate ecosystem status and condition at a larger spatial scale than project level analysis, generally 30,000 to 50,000 acres. Landscape analyses evaluate existing uses to determine if they are supporting aquatic management strategy goals or contributing to desired conditions for threatened, endangered, and sensitive species conservation and recovery." More information regarding landscape analysis can be found in Appendix T of the SNFPA Final SEIS. Landscape analyses are being completed as funding becomes available.

4.4. Public Concern: *The Final SEIS should clarify how Alternatives S1 and S2 are similar in effects to soils, when the intensity of treatments appears to be greater in Alternative S2. Research on effects of soil disturbance by logging should be used, explained, and cited.*

Response: Under both Alternatives S1 and S2, project design and implementation are required to follow regional and national forest soil quality standards. These standards are designed to protect long-term soil productivity and minimize the effects of soil disturbance and compaction. Both Alternatives S1 and S2 are expected to provide the necessary protection and maintenance of soil quality. The SNFPA FEIS (Volume 2, pages 360-368) provides information regarding the effects of logging on soil disturbance.

4.5. Public Concern: *The chemical consequences of disturbing a soil surface should be considered. A notorious example of this is the toxic runoff from the Leviathan Mine Site in Alpine County, with water laden with metals including arsenic and copper passing into the Carson River.*

Response: The standards and guidelines for chemical contamination of soils are covered in various laws, Forest Service Manuals, and soil quality standards for the Pacific Southwest and Intermountain Regions and individual national forests. The consequences of disturbing contaminated soils would be considered during project-scale environmental analysis. The Leviathan Mine site is an extreme example of soil contamination and is not within the scope of the types of projects covered by the SNFPA SEIS.

4.6. Public Concern: *Tables 4.2.6a and 4.2.6b in the Draft SEIS show that there is a decrease in predicted PM10 emissions from wildfire in Alternative S1. It states "the data suggest a reduction in public exposure to PM10 from wildfires under Alternative S1in both decades (page 168). . . A comparison of wildfire and prescribed fire emissions reveal that wildfire effects on air quality are approximately ten times greater than prescribed. Therefore, the most likely measure difference in air quality between the alternatives would result from changes in wildfire (page 169)." A decrease in PM10 production from wildfires does not necessarily equate with a decrease in PM10 exposure. For example, the PM10 produced during prescribed burning will likely occur during the late fall and winter, when dispersion conditions are not as good during the summer and early fall. Furthermore, prescribed fires generally burn much cooler than wildfires, and as a result,*

the smoke does not disperse as well. The Final SEIS should include a comprehensive analysis of public exposure to PM10 under each alternative.

Response: The paragraph below Table 4.2.6a on page 168 of the Draft SEIS has two typographical errors: the first word in line 2 should read "S2" instead of "S1" and the same error occurs on the last line of the paragraph. Alternative S2 is predicted to produce approximately 14 thousand tons less PM10 from wildfire than Alternative S1 in the first decade, and over 32 thousand tons less than Alternative S1 in the second decade. Alternative S2 is also projected to produce less PM10 from prescribed fire than Alternative S1 in both decades. The primary reason is that the preferred alternative treats more acres mechanically, with more vegetative material removed from the site either as biomass or as timber. With lower fuel loadings, either a prescribed fire or wildfire that follows the treatment is expected to result in lower emissions, protecting public health. Thus, Alternative S2 would produce less PM10 in the summer and early fall, and less PM10 during the late fall and winter.

In regard to prescribed fires, the Forest Service is committed to following both California's Title 17 MOU with the California Air Resources Board (CARB) and the Nevada Smoke Management Plan. These documents provide guidance and direction for smoke management and air quality protection. The CARB and Forest Service will soon release the Prescribed Fire Incident Reporting System (PFIRS), which will allow regulators and burners to identify the burning activities of other entities. Title 17 requires burners to get authorization to burn on the day of burn from Air Pollution Control Districts (APCDs). The APCDs would use PFIRS and contact neighboring regulators (including those in Nevada) before making a "go" decision. PFIRS procedures will provide opportunities to schedule burning activities to reduce smoke impacts on the public.

Additionally, under District Smoke Management Programs (prepared by APCDs as required under Title 17), burners must submit burn plans for each project to the APCD to get a burn permit. A burn plan includes such information as: planned day of ignition, smoke sensitive areas, and steps taken to reduce smoke impacts. All these practices are designed to reduce public exposure to PM10.

4.7. Public Concern: *The Draft SEIS shows PM10 emissions from prescribed fire and mechanical treatments for Alternative S1 that are much lower than the values shown for PM10 emissions for prescribed fire under Modified Alternative 8. It is apparent that there has been a change in the way PM10 emissions are calculated from the Final EIS to the Draft SEIS; however, the Draft SEIS gives no explanation of these changes. The changed approach for calculating PM10 emissions should be applied to all the FEIS alternatives (see DSEIS, page 168 and FEIS, Volume 2, Chapter 3, page 344).*

Response: PM10 emissions shown for Modified Alternative 8 in the FEIS and for Alternative S1 in the Draft SEIS are different. The methodology to calculate PM10 has not changed. PM10 emissions are based on number of acres treated, fuel loading (value being a function of vegetation type and pretreatment), percent combustion, and emission factor. The values for "number of acres under prescribed fire" and "mechanical treatment" are different under Modified Alternative 8 and Alternative S1 so the fuel loading is different, too. This results in different values for PM10. Refer to page 304 of the Draft SEIS under the heading "Changes in Analysis, Assumptions and Input Data from FEIS-ROD" for an explanation of changes. The Final SEIS provides additional information regarding changes in assumptions and input data between the FEIS and SEIS.

4.8. Public Concern: *The Final SEIS should show how the Forest Service asserts its water rights ownership. The Forest Service should provide a complete inventory of all water rights on government land and identify the ownership for every water right.*

Response: The Forest Service asserts ownership of water rights according to applicable State laws, which allocate water available for appropriation. The Forest Plan Amendment does not change the authorities of states to allocate water nor the procedures by which this is done.

4.9. Public Concern: *The Forest Plan Amendment should require the lands in NV comply with Nevada Revised Statutes chapters 533 and 534. Any improvements to water sources or existing uses must have an appropriation permit or federal reserved right pursuant to Nevada Revised Statutes (NRS) chapter 533 (surface sources) or an appropriation pursuant to chapters 533 and 534 (underground sources).*

Response: The Forest Plan Amendment does not change State law. The Forest Service will apply with all applicable State laws, including those pertaining to water rights and uses.

4.10. Public Concern: *The Forest Plan Amendment should ensure protection for the quantity and quality of national forest-based headwaters of the state's municipal water supplies. The Final SEIS should show how the proposed changes will not increase sedimentation, nutrients or pathogens, further degrading streams listed by U.S. Environmental Protection Agency as impaired.*

Response: The SEIS, Chapter 4, Part 4.2.3 Aquatic, Riparian and Meadow Ecosystems, compares the effects of Alternatives S1 and S2 on water quality relative to wildfire risk, fuels treatment, and grazing management. Alternatives F2 through F8 were analyzed in the Final EIS.

Factors that have historically influenced aquatic, riparian, and meadow ecosystems, including dams, diversions, stocking of non-native fish species, invasive migration of other species, the national forest road system, grazing practices, mining, and fire and fuels management are discussed in the SNFPA Final EIS (Volume 2, Chapter 3, part 3.4, beginning on page 195).

Most concerns for water quality on national forests typically relate to logging, roads, and grazing. Each Sierra Nevada national forest has standards and guidelines in their forest plans to direct management in streamside areas, protect beneficial water uses, and meet State water quality objectives.

All 9 alternatives considered in detail in the SEIS are designed to maintain or improve water quality on Sierra Nevada national forests. The SEIS preferred alternative (S2) retains the SNFPA Aquatic Management Strategy core elements including: aquatic management strategy goals, riparian conservation areas (RCAs) and critical aquatic refuges (CARs), riparian conservation objectives (RCOs), and direction pertaining to anadromous fish-producing watersheds on the Lassen National Forest. Stream buffer widths are found on page A-52 of the ROD for the SNFPA FEIS. The preferred alternative retains most of the standards and guidelines for RCAs and CARs. It does however change SNFPA ROD soil quality standards.

Any site-specific actions taken to implement SNFPA management direction would require compliance with the National Environmental Policy Act (NEPA). An environmental analysis of the effects of a proposed project's alternatives on water quality and their compliance with State water quality objectives would be completed during project-level planning.

4.11. Public Concern: *The Final SEIS failed to include an evaluation of potential compliance with water quality standards, although the Management Agency Agreement*

(MAA) between the Forest Service and the State Water Resources Control Board requires that the Forest Service implement Best Management Practices to meet water quality objectives and protect beneficial uses.

The Forest Service in the Pacific Southwest Region has worked with the State water quality agencies to meet Clean Water Act requirements. The greatest emphasis in this coordination has been placed on the management and control of nonpoint sources of water pollution. Of these nonpoint sources, sediment, water temperature, and nutrient levels have been the variables of most interest. Best Management Practices (BMPs) have been approved by the States to manage the causes of nonpoint source pollution and these are reviewed annually. In recent years, the Forest Service has emphasized monitoring on national forest lands to ensure that implemented projects follow approved mitigation measures and non-point pollution controls called Best Management Practices (BMPs). All national forests in California follow the methods and procedures for monitoring of BMPs in the Best Management Practices Evaluation Project (BMPEP) (SNFPA FEIS, Volume 2, Chapter 3, part 3.4, page 199).

Any site-specific actions taken to implement SNFPA management direction would require compliance with the National Environmental Policy Act (NEPA). An environmental analysis of the effects of a proposed project's alternatives on water quality and their compliance with State water quality objectives would be completed during project-level planning.

*4.12. **Public Concern:** The Final SEIS should explain why the transportation system and its effects are not being fully analyzed for water quality effects and why the proposed changes in forest practices will not reduce water quality.*

Response: On January 12, 2001, the Forest Service issued the final National Forest System Road Management Rule. This rule revises regulations concerning the management, use, and maintenance of the National Forest Transportation System. The final rule is intended to help ensure that additions to the National Forest System road network are essential for resource management and use; that construction, reconstruction, and maintenance of roads minimize adverse environmental impacts; and that unneeded roads are decommissioned and restoration of ecological processes are initiated.

Road related impacts to aquatic environments are addressed during the roads analysis process. Road system management in Sierra Nevada national forests would balance the need for public, administrative, and commercial access with the environmental impacts of roads. The full range of road management options, including construction, reconstruction, relocation, maintenance, closure, decommissioning and conversion to trails, would be available in all alternatives.

Standards for new road construction were also adopted that include avoiding wetlands or minimizing effects to natural flow patterns in wetlands.

Road system management in Sierra Nevada national forests would balance the need for public, administrative, and commercial access with the environmental impacts of roads. The full range of road management options, including construction, reconstruction, relocation, maintenance, closure, decommissioning and conversion to trails, would be available in all alternatives.

The alternatives in the SEIS retain the Aquatic Management Strategy Goals found in the ROD for the SNFPA, which would also provide added protection to wetlands.

*4.13. **Public Concern:** The Final SEIS should show the effects to recreation of implementing the State mandates on "water quality limited" streams.*

Response: The effects to recreation of implementing the State mandates on "water quality limited" streams are beyond the scope of this document.

4.14. Public Concern: *The Final SEIS should show how the alternatives will affect the storage of water for later release downstream.*

Response: None of the SEIS alternatives would affect the storage of water for later release downstream.

4.15. Public Concern: *The SEIS should ensure that entire watersheds are considered during planning, to assure protection of habitats and adequate assessment of water quality and cumulative effects. Why is there not one, required cumulative watershed effects analysis process to be used by all forests in the bio-region? A system of sediment budgeting should be established for the Sierra Nevada national forests.*

Response: The Aquatic Management Strategy (AMS) provides comprehensive direction for managing watersheds and maintaining and restoring aquatic ecosystems and water quality. The AMS includes goals that describe desired landscape-level conditions for aquatic, riparian, and meadow ecosystems; important land allocations such as riparian conservation areas and critical aquatic refuges needed to attain these goals; riparian conservation objectives and specific standards and guidelines pertaining to management activities in these allocations and other areas. Cumulative watershed effects are analyzed in a consistent way according to Forest Service Handbook 2509.22. A system of sediment budgeting is not necessary for analyzing cumulative watershed effects.

4.16. Public Concern: *The FSEIS should assess how the burning of biomass may contribute to global warming.*

Response: NEPA requires making an informed decision, based on available data and current science. Where uncertainty or lack of data exists, this must be stated. There is no consensus within the scientific community on how various actions affect global warming, therefore such an analysis cannot be reasonably made nor a judgment of whether such effects are significant.

However, some qualitative judgments are possible by comparing the fire effects. The action alternatives that reduce the risk of wildland fires will reduce greenhouse emissions compared to other alternatives. On the other hand, alternatives that harvest more trees may reduce the landscape's ability to absorb greenhouse gasses for a while. Quantification of these and other variables is not possible.

Biological Elements

4.17. Public Concern: *The SEIS should protect biodiversity as a potential source for future medicine.*

Response: While securing potential sources of biological diversity specifically for future medicine is outside the scope of the SEIS, maintaining ecosystems and species diversity is a Forest Service mandate. The SEIS preferred alternative retains SNFPA goals for old forest ecosystems, which include: (1) protecting, increasing, and perpetuating desired conditions of old forest ecosystems and conserving their associated species while meeting people's needs for commodities and outdoor recreation activities; (2) increasing the density of large trees, the structural diversity of vegetation, and improving the continuity and distribution of old forests across the landscape; and (3) reversing the declining trends in abundance of old forest ecosystems and habitats for species that use old forests. The SEIS alternatives provide ways to maintain or improve diverse habitats that should continue to support a wide variety of species.

4.18. Public Concern: *The Forest Service should use remote sensing and pattern recognition technology to identify all characteristics and assets of the National Forests to help sustain and enhance ecosystems.*

Response: The Forest Service currently uses remote sensing information. One meter digital ortho photos (monochromatic) and 30 meter landsat imagery are routinely utilized, particularly to assess and analyze vegetation conditions. A vegetation change detection analysis, specifically useful for insects, disease, and fire, is completed every 5 years using landsat imagery. Remote sensing, pattern recognition, and change detection are frequently-used research related techniques. The Forest Service routinely uses information derived from research that uses these techniques.

4.19. Public Concern: *The Final SEIS should explain why there is not a more significant increase in effects between Alternatives S1 and S2, particularly to aquatic, riparian and meadow species, particularly given increases in road building and reconstruction, timber harvest, grazing and fuel reduction under Alternative S2 compared to Alternative S1,. The FEIS showed that all the alternatives had different levels of effects. Why is there no assessment of the cumulative effects to aquatic, riparian and meadow species and within RCA's in the SEIS or transportation analysis for the additional work that will occur?*

Response: The differences between Alternatives S1 and S2 on aquatic, riparian and meadow species are addressed in Chapter 4 of the SEIS. As described in Chapter 4 (SEIS, Aquatic, Riparian and Meadow Ecosystems), both Alternatives S1 and S2 are expected to have similar effects on aquatic, riparian, and meadow ecosystems because both alternatives would meet the soil quality standards, Aquatic Management Strategy (AMS) goals, riparian conservation objectives, the Clean Water Act, Best Management Practices, and other applicable requirements and laws.

The Forest Service in the Pacific Southwest Region has worked with the State water quality agencies to meet Clean Water Act requirements. The greatest emphasis in this coordination has been placed on the management and control of nonpoint sources of water pollution. Of these nonpoint sources, sediment, water temperature, and nutrient levels have been the variables of most interest. Best Management Practices (BMPs) have been approved by the States to mange the causes of nonpoint source pollution and these BMPs are reviewed annually.

The assessment of cumulative effects to aquatic, riparian, and meadow species within RCAs have been addressed programmatically in the SEIS using bioregional modeling to estimate potential effects. Detailed cumulative effects analysis at the individual watershed scale is conducted at the project level because of the site-specific data required for this type of analysis.

4.20. Public Concern: *The Forest Service should consider doing more aquatic monitoring to determine effects of the selected alternative on aquatic systems.*

Response: The effects of the alternatives on aquatic ecosystems are discussed for various resources in Chapter 4 of the SEIS. Both Alternatives S1 and S2 include a strong commitment to an adaptive management and monitoring strategy generally as outlined in the SNFPA ROD and Appendix E of the SNFPA FEIS, with specific areas emphasized for monitoring. The Final SEIS includes more details regarding the preferred alternative's adaptive management and monitoring strategy than were provided in the Draft SEIS. Aquatic monitoring needs are addressed in the Final SEIS monitoring strategy,

4.21. Public Concern: *The Final SEIS should substantiate the inaccurate claims (made first in the SNFPA Final EIS) that dams and water diversions have caused severe*

degradation of aquatic, riparian and meadow systems. Refer to SNEP for original comments on this topic.

Response: The key findings for Watershed and Aquatic Biodiversity for the SNEP document are found in Volume 1, Chapter 8, page 124. The first key finding is that "The aquatic/riparian systems are the most altered and impaired habitats of the Sierra." The second Key Finding is that "Dams and diversions throughout most of the Sierra Nevada have profoundly altered stream-flow patterns (timing and amount of water) and water temperatures, with significant impacts to aquatic biodiversity." The third key finding is that "Riparian areas have been damaged extensively by placer mining (northern and west-central Sierra and grazing (Sierra-wide), and locally by dams, ditches, flumes, pipelines, road, timber harvest, residential development, and recreational activities."

The Affected Environment for Aquatic, Riparian, and Meadow Ecosystems in the SNFPA FEIS (FEIS Volume 2, Chapter 3, part 3.4-pages 194-227) discusses the impacts that dams and water diversions, as well as other land use practices, have on aquatic, riparian, and meadow ecosystems. There are numerous citations to peer reviewed articles on the effects of dams on the environment.

4.22. Public Concern: *The Final SEIS should identify the number of acres in the various aquatic zones and the effects of the related standards and guides to existing motorized recreation uses and /events. It should identify the specific actions required to restore aquatic, riparian, and meadow ecosystems and connectivity between them and the effects to recreation uses of those areas.*

Response: The focus of the SNFPA Final EIS and the SEIS are not on recreation management, but on the problem areas identified in the Purpose and Need chapters of the respective documents. The alternatives address recreation only to the extent that standards and guidelines are needed to address the problem areas (FEIS Volume 2, Chapter 3, pages 475-500. The FEIS states that alternatives could affect recreational supply (See page 476, Volume 2, Chapter 3).

Site conditions within riparian conservation areas (RCAs) would be assessed at landscape and project levels to determine whether recreational uses were consistent with aquatic conservation strategy goals and riparian conservation objectives. Actions needed to restore a given area must be developed site-specifically to respond to local conditions and factors that influence riparian degradation, therefore specific actions cannot be identified for any given area at the SEIS scale of analysis. As under existing management direction, site-specific, project or forest level environmental planning and analysis, which would include public involvement, would be used in making decisions about changes or mitigations in recreational use to protect resource values.

4.23. Public Concern: *The SEIS should use more guidelines establishing stratified, more restrictive utilization standards for annual grasslands that vary in slope. Establish more restrictive utilization standards for upland and riparian browse categories that have already been damaged by previous livestock utilization. Standards and guidelines in the Inyo National Forest Land and Resource Management Plan provide a template for this approach.*

Response: Both Alternatives S1 and S2 have the following standard and guideline: "Ecological status of all key areas monitored for grazing utilization is to be determined prior to establishing utilization levels." (SEIS, Appendix A, Range). This standard and guideline continues: "Degraded meadows (e.g. early seral, with greater than 10 percent bare soil and active erosion) require total rest from grazing until they have recovered and moved to mid or late seral status." This standard directs managers to apply more restrictive

utilization standards where meadows are in a degraded condition. This standard and guideline also includes provisions for increased utilization if ecological status is maintained or improved.

The preferred alternative (Alternative S2) allows grazing utilization standards to better reflect the wide array of site conditions encountered in the field, the best available science, and the management opportunities they may provide. For season-long grazing, both Alternatives S1 and S2 limit utilization of grass and grass-like plants for meadows in early seral status to 30-percent (or minimum 6-inch stubble height). For meadows in late seral status, utilization is limited to 40-percent (or minimum 4-inch stubble height). Alternative S2 allows the above utilization standards to be modified to test alternative standards when current practices are maintaining range in good to excellent condition. Testing will allow more site-specific utilization standards to be employed in the future.

*4.24. **Public Concern:** The SEIS should include a meadow restoration plan to restore degraded meadow habitats important for willow flycatchers. The plan should include timeframes, standards and a standard restoration method. Consider using the method identified by S. H. Wood.*

Response: Neither alternative specifically requires developing a meadow restoration plan. The need for meadow restoration would be identified during watershed and landscape analysis. Under both Alternatives S1 and S2, watershed and meadow restoration would be a priority in areas such as critical aquatic refuges, willow flycatcher nesting habitat, and Yosemite toad habitat. Project level analysis would be performed for each proposed action and would include public involvement and detailed, site-specific environmental assessment. Actual meadow restoration methods could include using the S.H. Wood methodology suggested or other methods based on site-specific conditions, project objectives, and funding levels.

*4.25. **Public Concern:** The Forest Service should ensure that studies and monitoring are not biased against recreation and recreational pack stock use. Monitoring methods should be designed to guard against these biases.*

Response: Under the monitoring strategy of both alternatives, reports are to be produced under designated schedules for most required monitoring. These reports and the underlying survey methodologies are made available for public review. Under the Multiple Use Sustained Yield Act of 1960, national forests are established and administered for outdoor recreation, range, timber, watershed, wildlife, and fish purposes. Multiple use management objectives, as stated in the National Forest Management Act of 1976, Section 6 (g)(3)(B), are met by providing a range of emphasis areas and land allocations. Additional management for multiple uses is addressed in the existing forest plans, and much of this direction will continue to apply under amendments associated with this SEIS. Recreation, range, timber, watershed, wildlife, and fish are the major use areas identified. Each alternative provides for all of these values at various levels.

The purpose of the proposed action is to adjust existing management direction to better achieve the goals of the SNFPA, one of which is to protect, increase and perpetuate desired conditions of certain ecosystems and conserve their associated species. The proposed amendments to Sierra Nevada national forest plans will help shape national forest land management direction so that desired conditions of ecosystems are restored and maintained while providing the management consistency that allows for multiple uses, including recreation, grazing, timber, water, mining, fishing, hunting, and other uses.

*4.26. **Public Concern:** The Forest Service should retain the SNFPA ROD standards and guidelines for Riparian Conservation Areas on pages A58 and A59. Serious effects to soils and riparian resources often result when a 50 percent utilization rate is allowed.*

Response: The Final SEIS preferred alternative (S2) retains the SNFPA Aquatic Management Strategy core elements including aquatic management strategy goals, riparian conservation areas (RCAs), critical aquatic refuges (CARs), riparian conservation objectives (RCOs), and most of their associated standards and guidelines.

For season-long grazing, both Alternatives S1 and S2 limit utilization of grass and grass-like plants for meadows in early seral status to 30-percent (or minimum 6-inch stubble height). For meadows in late seral status, utilization is limited to 40-percent (or minimum 4-inch stubble height). Alternative S2 allows these utilization standards to be modified to rigorously test alternative standards when current practices are maintaining range in good to excellent condition. While specific direction is not provided to define what is meant by "rigorously test", it is expected that appropriate specialists such as range conservationists, wildlife biologists, botanists, and ecologists would be involved. The results of testing may allow more site specific utilization standards to be developed in the future.

*4.27. **Public Concern:** The Forest Service should strengthen the grazing standards and guidelines for stream bank protection to better provide for willow flycatcher habitat.*

Response: Alternative S2 would change specific standards and guidelines in the existing SNFPA ROD for willow flycatcher habitat to better address species conservation within the wide array of local site conditions encountered in the field. Management direction under Alternative S2 is designed to allow local managers to tailor protections for these species based on local conditions. Both alternatives include the same standard and guideline that restricts streambank disturbance from resource activities (including grazing and recreation) to no more than 20% of a stream reach or 20% of natural lake and pond shorelines. Corrective actions are to be implemented if these streambank disturbance levels are exceeded. In sites occupied by willow flycatchers, Alternative S2 would restrict grazing to late season (after August 15) or require that managers develop a site-specific management strategy that ensures both protection of habitat during the breeding season and the long-term sustainability of suitable habitat at breeding sites.

*4.28. **Public Concern:** Alternative S2 should retain some untreated areas along intermittent streams inside SPLATS, as under Alternative S1.*

Response: While Alternative S1 requires that between 10-25% of SPLATs not receive mechanical treatment, these areas are not explicitly required to be left along intermittent streams. Direction for both Alternatives S1 and S2 requires a peer review process for activities proposed within CARs and RCAs that are likely to significantly affect aquatic resources or for projects that propose ground-disturbing activities in more than 25 percent of an RCA or more than 15 percent of a CAR. In addition, standards and guidelines for activities (including fuels treatment activities) within RCAs are the same for both alternatives. Direction for management of RCAs is designed to ensure that RCA functions and processes are minimally impacted by fuel management activities.

4.29. Public Concern: *The Forest Service should better define allowable uses inside the riparian conservation areas (RCAs) established along ephemeral streams (DSEIS, page 252). The boundaries of the buffers (RCA's) along ephemerals will restrict long-term recreation uses. The Forest Service should consider allowing long-term uses to continue. The Forest Service should allow recreation uses to continue if no damage is evident.*

Response: Multiple use management objectives, as stated in the National Forest Management Act of 1976, Section 6 (g)(3)(B), are met by providing a range of emphasis areas and land allocations. Management for multiple uses is addressed in the proposed amendment as well as in existing forest plans. Much of the direction in existing forest plans will continue to apply under the amendments associated with this SEIS. Major identified uses of national forests include recreation, range, timber, watershed, wildlife, and fish. Each alternative provides for all of these values at various levels.

The FEIS states that alternatives could affect recreational supply (FEIS, Volume 2, Chapter 3, page 476). Site conditions in RCAs would be assessed during project level planning and analysis to determine whether recreational uses were consistent with riparian conservation objectives. Changes or mitigations in recreational use to protect resource values could follow from site-specific project or forest level environmental analysis with public involvement, as is done now under existing management direction. The riparian conservation objectives and associated standards and guidelines under both Alternatives S1 and S2 offer a mix of bioregional protection measures with a high degree of local flexibility to develop protection measures based on site-specific conditions.

Wildlife, General

4.30. Public Concern: *The SEIS should protect species dependant on burned forest habitats. In burned areas, retain and buffer nesting, roosting and den sites. Disclose the location of all survey work done in burned areas.*

Response: When wildfires escape initial attack and transition into extended attack, a District Ranger or Incident Commander often assigns a resource advisor to the incident. The Resource Advisor provides information to allow consideration of needs and opportunities to provide protection of threatened, endangered or sensitive species, riparian areas, cultural resources and other resource concerns that may be damaged by fire suppression activities.

During the planning for rehabilitation of burned areas, biologists and other specialists work together to identify area-specific protections that are needed for species that inhabit burned areas following fire. Both alternatives require that 10% of post-fire areas be left unsalvaged to provide for dependent wildlife species, although there is a slight difference in the direction between the alternatives.

When post-fire surveys are completed, the records are routinely filed with the planning records of the individual burned area. This information is summarized in project environmental documents when it is relevant to the analysis. More detailed information can be obtained in the planning records for each project.

4.31. Public Concern: *The SEIS needs to prepare a better analysis of MIS species, including cumulative effects. The MIS analysis should include the guilds, focal species and species at risk.*

Response: Describing the risks and cumulative effects to TES, MIS, and other important species has been a major focus of the SNFPA FEIS. Chapter 3, Part 4 of the FEIS provides a detailed description of species

and species groups (guilds, focal species, and species at risk) in the Sierra and the environmental consequences of implementing the alternatives that were considered there. Section 4.3 of the SEIS tiers to this analysis and does not repeat it but provides supplemental information on this subject, with specific attention to TES species. The Final SEIS includes a more detailed analysis of MIS, focusing on projected habitat changes between the two alternatives as it might affect MIS populations.

*4.32. **Public Concern**: The SEIS needs to recognize the benefits of vegetative fire disturbances to wildlife habitat.*

Response: Fire changes forest and rangeland structure in a variety of ways. Low-intensity fire typically removes forest litter and some of the understory while leaving the forest canopy intact. Stand-replacing fires kill most or all of the live vegetation after which forest succession begins anew. Many fires result in mosaics of high and low-intensity burns. Wildlife species in the Sierra respond to these habitat disturbances according to their feeding, breeding, and other needs. Some find optimum conditions in completely burned over forests. Others are sensitive to even minor disturbance and seek other areas after a fire. Still others respond favorably to low-intensity events while others avoid habitat created by these disturbances.

Variations in habitat preferences for wildlife, including those influenced by fire, are described in detail throughout Chapter 3, Part 4 of the FEIS. The SEIS attempts to reduce the size and extent of high intensity wildfires while creating conditions where prescribed burning can be used to reintroduce low intensity fire into portions of landscapes. The SEIS describes how wildlife would respond to habitat changes, including those caused by wildfire, by management activities, and by leaving areas untreated in Chapter 4.3.

*4.33. **Public Concern:** The SEIS should address the negative impact of understory depletion on wildlife habitat.*

Response: Wildlife response to forest understory conditions was a major focus of the EIS because each alternative provided a strategy for reducing forest understory fuels while protecting wildlife habitat. Projected animal responses to these structural changes was compared many places in the FEIS (Volume 3, Chapter 3, Part 4). Comparisons were often made by describing the species associated with the habitat types in the California Wildlife Habitat Relationships System (see for example FEIS, Table 4.2.3.1b in Section 4.2, page 31). Some of the open habitat types in the CWHR system correspond to sites that have experienced fire or other forms of understory treatments. Others correspond to untreated stands. Habitat comparisons are also provided for some individual species that may be sensitive to management options under consideration in the FEIS. For example, the affects of understory removal at goshawk nest sites are discussed in the FEIS in part 4.4.2.2 on page 120.

The SEIS provides additional information for species that might be sensitive to the understory treatments associated with the alternatives. For example, effects on fisher habitat are described in Chapter 4.3.

*4.34. **Public Concern:** The SEIS should prioritize the maintenance of habitat connective and avoid fragmentation, especially for California spotted owl and Pacific fisher.*

Response: Habitat connectivity for California spotted owl and fisher was a major consideration for all alternatives. The standards and guidelines in all alternatives were designed to maintain habitat connectivity and to reduce the number and extent of large, stand-replacing wildfires that interrupt connectivity and impose serious fragmentation.

The most likely and dramatic changes to landscape connectivity from all of the alternatives would result from changes in wildfire distribution and size, and forest cover. Existing narrow bands of vegetation zones, such as the mixed conifer zone in the southern Sierra Nevada section, portions of the foothill

woodland zone in the central part of the Sierra Nevada Foothills section, and portions of the eastside pine zone in the Southern Cascades section, are most vulnerable to fragmentation. Many of these vulnerable areas are rated as high or moderate for fire hazard and risk. In the central and southern parts of the range, these vulnerable areas, with high or moderate fire hazard and risk, are under pressure from urban expansion; hence, accidental fires are likely to increase in these areas. In the central and northern Sierra Nevada, patterns of fragmentation and connectivity also depend on management of private lands, as a high proportion of the national forests are intermixed with private lands.

The strategy in both Alternatives S1 and S2 to change the size and extent of damaging wildfires uses strategically placed area treatments that remove surface and ladder fuels and thin forest stands over approximately 25% of the landscape. The distributed pattern of treatments across landscapes and the focus on thinning small material from the understory will minimize the effects on connectivity and fragmentation as discussed for the California spotted owl and fisher in Chapter 4.3 of the SEIS.

4.35. Public Concern: Where clear data on the status of a species or the impact of an activity upon a species is lacking, management actives should not be restricted. Instead, activities should continue at their existing level and the species should be monitored to detect any impacts.

Response: While general habitat associations are often understood or can be reasonably inferred, the specific relationships between animal status and specific habitat attributes or management activities are typically lacking. Because the Forest Service is mandated to maintain viable populations of native vertebrate and desired non-native vertebrate species (see Section 219.19, National Forest Management Act Planning Regulations), managers typically take a cautious approach where management activities could have serious adverse impacts on species. The agency also tries to preserve reasonable uses and activities on the national forests. Where significant uncertainty exists about the effects of these uses on species, the agency uses the best available science to document the risks of action or inaction in determining appropriate courses of action.

4.36. Public Concern: The SEIS should protect late seral stage dependent species.

Response: The purpose of the SNFPA was to address five problem areas that were considered in need of urgent attention. One of the problem areas was sustaining old-forest ecosystems and the FEIS identified several alternative approaches for maintaining and enhancing old forests and their associated species (see section 1.2.2 of the FEIS, pages 2-6 to 2-9). As stated on page 3-154 of the FEIS, the number of large, old trees would increase with all alternatives in response to restrictions on harvest of large trees in each. One of the goals of the Record of Decision was to increase the number of large trees, old-forest stands, and associated species, while simultaneously protecting them from losses to wildfire. Alternative Mod 8 provided the foundation for the chosen strategy for accomplishing this goal.

Alternatives S1 and S2 support the same overall goal of increasing the number of large trees, old-forest stands, and associated species. They offer two slightly different approaches for accomplishing the goal. Alternative S1 approximates the current program and Alternative S2 represents some refinements to allow more effective and efficient implementation. Under both alternatives, the potential cumulative effects in the short term project that the amount of old forest (measured by tree size greater than 24” and canopy cover greater than 60%) increases across the bioregion, despite treatments in approximately 14% of the old forest emphasis areas. The amount of suitable nesting habitat similarly is projected to increase under both alternatives. There is a slight difference in the resulting acreage between the two alternatives as shown in Chapter 4.3. Species associated with late-seral-stage forests are expected to be protected under both Alternatives S1 and S2 as described in Chapter 4.3.

*4.37. **Public Concern:** The SEIS should incorporate the "green zone/gray zone" approach to riparian buffer establishment.*

Response: The original SNFPA FEIS alternatives included two options for riparian habitat management: Variable Width Riparian Areas (other wise known as the green zone/gray zone approach) and Stream-Type Flexible Width Riparian Areas. The Stream-Type Flexible Width Riparian Areas approach was selected in the SNFPA ROD. Changes to the management strategy for riparian areas are not being evaluated in the SEIS.

*4.38. **Public Concern:** The SEIS should permanently manage a select set of meadows exclusively for wildlife.*

Response: This comment refers to a feature of Alternatives F2, F6, and F8 that would designate a network of approximately 10 to 15 meadows as important bird areas. This designation was considered, but was not adopted in the SNFPA ROD. All of the FEIS alternatives propose improvements to meadows where past management has had an adverse environmental effect. Alternatives S1 and S2 include these measures. Many of the national forests are actively working with Point Reyes Bird Observatory and others to identify and protect important areas for birds on a local basis. Meadows are particularly important to neotropical migratory birds as discussed in Chapter 3.2 and 4.3. Both alternatives and management at the individual national forests are intended to comply with the various landbird conservation plans being developed. Future management regarding meadow ecosystems is not precluded by either alternative.

*4.39. **Public Concern:** The SEIS should include a conservation strategy for the Swainson's thrush.*

Response: The influence of the alternatives on Swainson's thrush were addressed in Chapter 4 of the FEIS, where the effects of implementing the alternatives were projected on (1) qualitative trends for the species and their habitat on national forests in 50 years and (2) cumulative effects on population trends after five decades. For Swainson's thrush, the FEIS projected that the future condition of trends resulted in Outcome C and that the future condition of cumulative effects on population trends resulted in Outcome D. The alternatives in the SEIS fall within the range of alternatives evaluated in the FEIS. Therefore, there is no evidence to suggest that the proposed changes in the SEIS would produce different outcomes for Swainson's thrush. Accordingly, additional analyses for these species were not performed.

*4.40. **Public Concern:** The SEIS needs to clarify impacts upon recreation of the limited operating periods that would be placed around wolverine and Sierra red fox detections.*

Response: The direction for evaluating sightings has been clarified in Alternative S2 but remains essentially unchanged from Alternative S1. The clarification involves utilizing expertise provided by Forest Service research scientists to validate sightings and clarifying that the limited operating period would be evaluated after two years for detections not associated with a den site. The clarification also eliminates the incorrect interpretation that the limited operating periods around den sites would be constrained by the two year timeframe. Since there are no substantial changes to the standards and guidelines, the analysis of effects from the SNFPA FEIS remains valid and no additional supplemental effects analysis was prepared.

4.41. Public Concern: *The SEIS should retain the Framework's protection for the Pacific Fisher, including the desired future condition. Management should consider needs for resting habitat and should consider reintroductions of fisher into central and northern California.*

Response: See Public Concern 4.42.

The standards and guidelines related to fisher have few differences between Alternatives S1 and S2. The primary difference in effect from Alternative S2 compared to Alternative S1 on fisher is the change in standards and guidelines affecting canopy closure. Modeling indicates little to no change in average canopy closure at a landscape scale. The minimum canopy cover retention of 40% is not expected to significantly limit opportunities for fisher dispersal, particularly given the pattern of treatments across watersheds. Both Alternatives S1 and S2 include direction to assess potential impacts of fragmentation on old forest species, particularly fisher and marten. Each individual project must conduct NEPA analysis, including a biological evaluation of effects on fisher and a cumulative effects analysis of other projects.

In response to examination of landscapes actually occupied by fisher in the southern Sierra, as discussed in chapter 4.3, one aspect of the desired future condition for the Southern Sierra Fisher Conservation Area has changed between the alternatives. The desired future condition in Alternative S1 is to maintain a minimum of 60 percent of each 5,000 to 10,000 acre watershed in at least CWHR size class 4 and at least 60 percent canopy cover outside of the WUI. Alternative S2 changes this desired future condition to maintain a minimum of 50 percent of the forested area having at least 60 percent canopy cover around known or estimated female fisher home ranges outside of the WUI. This change was made to recognize the variability in actual vegetation conditions found for fisher within the Southern Sierra Fisher Conservation Area.

The Regional Forester has expressed support to working with the State of California and the FWS in evaluating opportunities to reintroduce fisher into other areas of the Sierra Nevada. Any decision to reintroduce fisher would require separate environmental review by the State and the Forest Service.

4.42. Public Concern: *The analysis for fisher should be improved to include: cumulative effects analysis; management within the Giant Sequoia National Monument; genetic isolation of the southern Sierra populations; fishers located outside of the Southern Conservation area; the best available information, including viability analysis; and greater detail or short term impacts.*

Response: The analysis for fisher has been expanded in the Final SEIS to address the concerns listed here.

4.43. Public Concern: *The SEIS should ensure Pacific fisher dispersal by maintaining adequate canopy cover. Dispersal is particularly at risk in the HFQLG pilot project area and eastside habitats.*

Response: This issue is addressed in Chapter 4.3 of the SEIS and in the HFQLG FEIS and working papers. Fisher are not known to currently inhabit the HFQLG area and proposed treatments in Alternative S2 within that area are unlikely to create large barriers to further expansion and connectivity for fisher.

4.44. Public Concern: *The SEIS should clarify the impacts of fisher den protections upon motorized recreation use.*

Response: Alternative S1 requires evaluation of the effects of existing recreation and ongoing management activities on fisher den sites. Alternative S2 requires evaluation for all new proposed

activities and as permits for existing activities are renewed. Since these reviews are site-specific and have not been completed yet, the actual effects on motorized recreation use are unknown at this time. As discussed in Chapter 4.3, many of the known sites are in somewhat close proximity to human activity suggesting that continued human uses, potentially including motorized recreation use, may not be completely incompatible with managing fisher den sites. This determination must be made site-specifically however.

*4.45. **Public Concern:** The SEIS should protect fisher dens from disturbances year round.*

Response: See Public Concern 4.44.

The most critical time to protect fisher den sites from disturbance is during the breeding season. Outside of the breeding season, fisher disperse and utilize many areas within their home range, diminishing the need to protect the den site from disturbance. Both alternatives include direction to identify a 700 acre den site buffer and restrict activities that can occur within these buffers to maintain suitable habitat.

*4.46. **Public Concern:** The SEIS should not restrict human activities in Pacific fisher habitat until a complete Conservation Assessment is completed.*

Response: The SEIS proposes restrictions around den sites only where there is clear evidence of impacts. This local level determination is not dependent on completion of a range-wide conservation assessment.

*4.47. **Public Concern:** The SEIS should improve the analysis of impacts on pine marten, including the use of the best available information and expanded discussions of: species distribution; the risks of local extirpation; the increased risk of adverse effects in managed eastside forests; long and short term effects, and the impacts from forest openings. Studies from northern Utah and central Maine have found that marten are sensitive to openings and may be adversely affected by landscapes with more than 20-25% non-forest cover.*

Response: An expanded analysis is provided in the Final SEIS.

The habitat relationship of marten in the Sierra Nevada in relation to fragmentation is largely unknown. It is unknown if the behavior of marten in these other ecological habitat types occurs in Sierra Nevada populations. Proposed treatments will retain at least 40-50% canopy cover and will occur in strategically placed area treatments dispersed across the landscape. Estimated treatment areas were modeled for the bioregional analysis for the SEIS. Since the extent of openings will be dependent upon site-specific vegetation conditions and the placement of strategically placed area treatments, the effects to local marten populations will need to be evaluated at the project and forest level. Treatments would only occur on approximately 25% of the landscape.

*4.48. **Public Concern:** The final SEIS should examine the impacts to the pine marten from fully implementing the HFQLG pilot project.*

Response: These effects are analyzed in the HGQLG FEIS. That analysis is summarized and expanded in Chapter 4 of the Final SEIS and working papers.

*4.49 **Public Concern:** The Forest Service should substantiate claims that elevated glucocorticoid levels harm the pine marten.*

Response: The SEIS summarizes information on indications of stress on wildlife as a result of recreational activity. This is an acknowledgement of potential effects based on the best available science

rather than a claim of direct substantiated effects where remedial action is proposed. No further discussion or validation is warranted or proposed at this time.

4.50. Public Concern: *The SEIS does not provide adequate protection of spotted owl and goshawk nests. Larger buffers should be established around spotted owl and goshawk nests.*

Response: See Public Response 4.69.

Protected Activity Centers are established around spotted owl and goshawk nests as identified in the SNFPA ROD under both alternatives. Both Alternatives S1 and S2 prohibit mechanical treatments within 500-feet of owl and goshawk activity centers. For Alternative S2, mechanical treatments are also prohibited within a 500-foot radius around activity centers in the Threat Zone.

When prescribed burning within PACs, both Alternatives allow 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. The intent of this measure is to clear ladder fuel material around the nest tree to avoid inadvertent damage during prescribed burning or allow handline construction to isolate the nest tree or nest stand. Alternative S2 expands this protection measure to include any area within a PAC where prescribed burning effects from torching and bole heating would be likely to damage desired nest or roost trees or other patches of habitat and to protect habitat elements such as important snags and down logs. Biologists and fuels specialists would site-specifically identify where hand treatment would occur.

4.51. Public Concern: *Due to scientific uncertainty in population trends, the SEIS should exercise caution in spotted owl management efforts. While the meta-analysis did not find a significant population decline across the Sierra Nevada, there is compelling evidence of decline on the Sierra National Forest demographic study area. While 2002 may have been a good year for spotted owl reproduction, 2003 appears to have been a very poor year for reproduction. A single years reproductive effort should not be used to evaluate population trend.*

Response: The preferred alternative (Alternative S2) continues to exercise caution with respect to management of forest habitats for sensitive species. The SEIS is intended to respond to concerns that impacts from large, severe wildland fires may pose greater risks to habitats for sensitive species than short-term risks from vegetation and fuels management activities.

The SEIS recognizes that there is continuing scientific uncertainty regarding habitat relationships and population trends of the California spotted owls. The SEIS also recognizes that there is considerable concern for the long-term habitat loss and fragmentation caused by large high severity wildfires. The SEIS evaluates an alternative to the current direction that is projected to improve the ability to implement the desired strategic landscape fuels treatment. The strategy calls for reducing fuels on only a portion of landscapes as a first step and to retain elements that are hard to replace (large trees and snag and down logs). Both alternatives also include an adaptive management strategy that is intended to improve scientific knowledge regarding the fire and fuels strategy as well as habitat relationships and vegetation management effects on California spotted owls

4.52. Public Concern: *Alternative S2 as presented in the Draft SEIS, may lead to a trend toward listing of the California spotted owl. The DSEIS acknowledges some of the potential risks to the owl that are associated with the proposal: short-term changes in habitat; probable decline in suitable owl habitat over the first 20 years; and more habitat*

fragmentation than the Framework over the first 20 years. There is no assessment of effects on subpopulations.

Response: The FWS concluded that results of demographic analysis are not conclusive with respect to the population status of the California spotted owl: "There is no definite evidence that the population is decreasing across its range, and various analytical results of the individual study areas are not wholly supportive of conclusions regarding declines in any given study area." (FR, volume 68, number 31, page 7595). Furthermore, FWS declared, "Substantial scientific uncertainty remains regarding the effects of fuel treatments in PACs [*protected activity centers*] and foraging areas. However, in absence of demonstrated effects, and considering the potential negative impacts are also accompanied by positive effects from fire risk reduction and faster development of high quality habitat, we [FWS] find that the timber harvest and fuel treatments proposed under the SNFPA do not constitute a significant threat to the California spotted owl at this time" (page 7601).

The Notice of 12-month petition finding (Finding) issued by the US Fish and Wildlife Service on the petition to list the California spotted owl under the Endangered Species Act (FR 68:7580) is discussed in the Final SEIS (Chapter 3, page 119). The Finding acknowledged the Standards and Guidelines in the SNFPA Final EIS as the management direction being implemented on National Forest lands across the Sierra Nevada at the time the notice was published. The Finding also acknowledged that a management review of the SNFPA ROD was being undertaken and that planning for implementation of an administrative study on the Lassen and Plumas National Forests was ongoing, concluding that they (US Fish and Wildlife Service) "would monitor the development of management direction, offer scientific assistance, and review the effects at a later date, if necessary."

The habitat analysis has been refined for the Final SEIS. The amount of old forest habitat is projected to increase under all analyzed alternatives, including the preferred alternative in the SEIS. When implemented, both alternatives would also contribute to an overall improving trend in fuels reduction and fire protection across the Sierra Nevada. The abundance and distribution of suitable nesting habitat for the spotted owl is projected to increase from current conditions in the short term in both alternatives, although Alternative S1 is projected to provide about 4 percent more than projected for Alternative S2. The overall amount of suitable owl habitat is projected to continue to increase over current conditions into the future with a potential difference of about 10 percent more habitat under Alternative S2 than under Alternative S1 in year 130. This increase is largely due to continued growth in untreated areas and by reducing future wildfire size and severity. As with Alternative S1, there is uncertainty as to what effect Alternative S2 would have on spotted owl habitat in the long term within treated areas, however, both alternatives have an adaptive management strategy designed to begin to address this uncertainty.

The effects of the proposed treatments on owl subpopulations are assessed generally in Chapter 4.3, particularly in terms of cumulative effects on populations. Specific effects can only be determined by actual projects proposed to implement the alternative because it depends upon the extent of actual effects to PACs and the treatment, maintenance, and growth of habitat.

4.53. Public Concern: *The Framework sets stricter limits than does the DSEIS on treatments that could occur in "Areas of Concern" which were identified in the CASPO Report. The DSEIS would result in a higher risk of declining owl sites during the net 20 years.*

Response: Neither Alternative S1 nor S2 provide specific direction for management within California spotted owl Areas of Concern. The effects of Alternatives S1 and S2 on habitat in Areas of Concern has been updated in the Final SEIS. The SEIS discusses habitat abundance and distribution in Geographic Areas of Concern as a risk factor for the California spotted owl. Both Alternatives S1 and S2 would treat the same strategically placed area treatments. The different effects between the alternatives are related to

the difference in use of mechanical equipment and the differences in canopy cover and average tree size retained. While specific direction is not provided within Areas of Concern, the effects of proposed activities within these areas would be evaluated and disclosed during site-specific project planning. The SEIS attempts to balance the risk of habitat loss from high intensity wildfire with the risk of habitat change from treatments as part of a bioregional strategy. These same risks would be evaluated site-specifically when projects are proposed.

4.54. Public Concern: *The Forest Service should be cautious in interpreting and using new data in justifying and developing new management direction for spotted owls. Other sources of data should be considered. Analysis by Lee and Irwin (2003) suggests that the complex issues of wildfire risks and spotted owl habitat and the multiple options available for a given landscape to manage these resources are best evaluated site-specifically.*

Response: The effects of the alternatives considers new information related to and analysis of existing owl demographic and habitat relationships data. This information did not drive the development of new management direction but was used to inform the decision-maker of the effects of implementing the new proposal. Spotted owl information was partially compiled in the Sierra Nevada Forest Plan Amendment Management Review and Recommendations page 36, page 37 and the Final SEIS Chapter 3. The new information in the meta-analysis conducted for the California spotted owl explained that there is still considerable uncertainty surrounding owl demographics in the Sierra Nevada. The meta-analysis indicates that adult survivorship is still a concern. All available science still indicates that spotted owl habitat must be carefully managed.

The Notice of 12-month petition finding (Findings) issued by the US Fish and Wildlife Service on the petition to list the California spotted owl under the Endangered Species Act (FR 68:7580) is discussed in the Final SEIS (Chapter 3). The Findings acknowledged the Standards and Guidelines in the SNFPA FEIS and ROD as the management direction being implemented on National Forest lands across the Sierra Nevada at the time the notice was published. The Findings also acknowledged that a management review of the SNFPA ROD was being undertaken and that planning for implementation of an administrative study on the Lassen and Plumas National Forests was ongoing, concluding that they (US Fish and Wildlife Service) "would monitor the development of management direction, offer scientific assistance, and review the effects at a later date, if necessary."

The analysis for the SEIS recognizes that actual effects to resources must be evaluated site-specifically while considering larger scale cumulative effects. The SEIS assists in providing information that can be used to assess direct, indirect, and cumulative effects at the site-specific project level.

Both alternatives of the SEIS include a component of adaptive management, which recognizes that there are scientific uncertainties related to management of California spotted owls. The adaptive management approaches of each alternative encourages scientific study so that elements of the alternative can be adjusted to better balance management for the California spotted owl with management for other resources and activities.

4.55. Public Concern: *The Forest Service should recognize that some of the goals of the HFQLG are incompatible with protection of the California Spotted Owl. The implementation of HFQLG would pose greater risk to the spotted owl. The HFQLG originally included a mitigation to avoid all suitable owl habitats.*

Response: The management direction in the SNFPA FEIS ROD (Alternative S1) supercedes direction in the HFQLG Pilot Project FEIS and ROD and precludes implementing many of the resource management activities that Congress desired to be tested. The rational for this component of the decision was the then

Regional Forester's belief that limiting the Pilot Project was "necessary to provide the ecological conditions to maintain viable populations of spotted owls distributed across the Sierra Nevada." Additionally, he believed that the Pilot Project could not be fully implemented without "degrading owl habitat and without increasing risk to owl viability" because of the "excessive canopy closure reductions, large tree removals and substantial acreages in group selection treatments" (SNFPA ROD pg 51). The ROD took a very conservative approach to managing for spotted owls and other sensitive species. Alternative S2 provides an alternative approach that would be consistent with the viability requirements of the National Forest Management Act and that would fully implement the intent of the Pilot Project.

The environmental effects of the Pilot Project were originally evaluated and analyzed in the HFQLG FEIS. The biological evaluation (BE) of potential effects on the California spotted owl concluded the Pilot Project might trend the spotted owl towards federal listing. A review by the SNFPA Review Team found that the BE took a "worst case" approach to evaluating effects of the Pilot Project on owls. All group selection and DFPZ construction that was projected to occur within owl habitat was assumed to render 100 percent of that habitat unsuitable. Despite this "worst case" assumption about treatments, the results of that analysis still showed that 93 percent of nesting habitat would not be impacted, 91.5 percent of foraging habitat would not be impacted, and 89 percent of owl home ranges currently containing 50-percent or more suitable habitat would retain that level. In addition, no spotted owl protected activity centers or Spotted Owl Habitat Areas (SOHAs – analogous but not identical to HRCAs) would be affected.

The cumulative effects discussion within the HFQLG BE discloses that past fuel reduction thinning and DFPZ construction undertaken within habitat selected for nesting by spotted owls actually reduced that habitat by less than one percent of the acreage treated. Considering all timber strata used by owls for nesting, past projects reduced only six percent of the acres of habitat treated to lower quality habitat strata (HFQLG BE, Table 9, pg 71). Even assuming the Pilot Project would double the highest percentage of reductions within treated areas previously experiences (six percent), the projected reductions in owl habitat would be only 12 percent instead of the 100 percent used in the analysis.

The Final SEIS includes more specific analysis related to the California spotted owl and the HFQLG Pilot Project. The SEIS recognizes the potential for habitat quality reductions in treatment units within the HFQLG Pilot Project area throughout the analysis in Chapter 4.3 and considers it along with the Sierra-wide direction for the California spotted owls in evaluating cumulative effects.

*4.56. **Public Concern:** The Draft SEIS has not made a compelling case that wildfires pose an unacceptable threat to owls.*

Response: The statement that " old forest is burning up faster than it can be replaced" was overstated and has been removed from Chapter 1 in the Final SEIS. This statement is not projected to be valid in the short term under either alternative. The SEIS did not project habitat losses at 68,000 acres per year over the next decade, but rather used historic fire data and recent wildfire trends to estimate 68,000 areas as a starting point for projecting trends in wildfire acreages burned into the future.

Chapter 3 of the Final SEIS discusses examples of recent wildfire effects on California spotted owl PACs. While it is difficult to project future wildfire effects to PACs, wildfires within the last 5 years have severely affected a number of PACs, likely rendering many of them unsuitable. Both alternatives include an adaptive management strategy that is designed to begin investigating the effects of fuels treatments so the risks to spotted owls and their habitat can best be managed in the future.

*4.57. **Public Concern:** The Final SEIS should improve the cumulative effects analysis for spotted owl, including a disclosure of the uncertainty associated with the projected amount of suitable spotted owl habitat. Without a regional database, it is not possible to*

track how individual projects could contribute to cumulative effects. Recent compilations of individual project biological evaluations showed many projects had determinations of "may affect individual owls but not lead to a trend toward Federal listing."

Response: The cumulative effects section of the Final SEIS has been rewritten to provide more detail. In addition, Appendix B of the FEIS and of the SEIS discusses the modeling methods and assumptions used to project suitable spotted owl habitat. The problems of scientific uncertainties, including those associated with long-term projections, are discussed in a general way on Page 33 to 35 of the Draft SEIS. The cumulative effect analysis of the alternatives was conducted considering all other past, present and reasonably foreseeable future actions at the bioregional scale. This analysis included effects of non-federal land management practices and risk factors under Forest Service control that may effect populations. Key assumptions of likely non-federal land management practices and future trajectories within the overall Cumulative Effects section or the cumulative effects are discussed. While the cumulative effects for habitat only considered the likely habitat conditions on NFS lands, the population cumulative effects provides an estimation of the likely condition of a population considering both NFS and non-federal lands and associated cumulative effects.

The determination of "may affect" is typically made in biological evaluations whenever an activity occurs within suitable spotted owl habitat. This determination can be made if either there is the potential for disturbance to individual owls or there are activities that alter any aspect of vegetation within forest stands that could be considered suitable habitat. Since the determination indicates the potential for effect rather than actual effects and does not indicate whether habitat was physically affected, a simple tally of determination findings does not convey actual effects to spotted owls or their habitat. With modern geographic information system capability, project level information is increasingly being captured such that regional accounting is becoming more reliable. Implementation monitoring will be important to determine how planned projects actually affect spotted owls and their habitat.

*4.58. **Public Concern:** The SEIS should assess the effects to the spotted owl from the proposed actions at the home range scale and within a spatial context.*

Response: Spotted owl habitat is identified and maintained at multiple spatial scales (Activity Center, PAC, HRCA, and OFEA) with the intent of providing habitat not only throughout the home range, but also across the landscape to provide dispersal habitat and linkages for all old-growth associated species. The SEIS in Chapter 4 Amount of Habitat Provided in Owl Home Ranges discusses the amount of HRCA that are projected to be treated. The SEIS spatial analysis could only provide an approximation of potential treatments to HRCAs because the exact location of treatment units (and the amount of treatment overlap with HRCAs and the amount of suitable spotted owl habitat affected) would only be known during site-specific planning. The analysis in the SEIS shows that the strategic pattern of treatments and the dispersed pattern of spotted owls limits potential overlap with treatment units and that there is very little difference between the alternatives in terms of the total area of HRCAs potentially affected. In Alternative S2, more of these acres could be treated with mechanical equipment and the effects of this are evaluated in Chapter 4.3.

*4.59. **Public Concern:** The SEIS should not claim that creating foraging habitat from nesting habitat would increase the overall spotted owl habitat.*

Response: This issue has been addressed in the Final SEIS. The Final SEIS describes projected changes in California spotted owl nesting habitat over time separately from projected changes on overall suitable habitat (nesting and foraging).

*4.60. **Public Concern:** The SEIS should manage areas outside of PACs to create foraging habitat for spotted owls rather than for nesting and roosting site standards.*

Response: Management inside of PACs is designed to retain the forest structural attributes necessary to support reproduction. The forest wide standards and guidelines of Alternative S2 applied outside of PACs are designed to implement a landscape approach to reduce the threat to foraging, roosting, and nesting habitats from catastrophic fire, while retaining large live trees, downed woody material, clumps of snags, and other legacy elements which are important components of owl habitat within treatment units. The intent of designating an HRCA is to encompass the best available spotted owl habitat in the closest proximity to the owl PACs where the most concentrated owl foraging activity is likely to occur (ROD, California Spotted Owl Conservation Strategy pages 39, 40; FEIS Standards and Guidelines pages 266, 296). It is important to manage for suitable nesting and roosting habitat outside of PACs to provide opportunities for population expansion and to allow for territories to shift in response to environmental change if they render existing PACs unsuitable over time. Analysis for the SEIS shows that suitable nesting, roosting and foraging habitat should all increase across the bioregion in both the short-term and long-term in both alternatives, but with slight differences between them due to differences in treatment intensity and changes in the rate of large high intensity wildfires over time.

*4.61. **Public Concern:** The SEIS should increase snag recruitment for spotted owl nesting.*

Response: Chapter 3 of the Final SEIS presents modified modeling data, which includes new data for snag and down wood retention. Habitat modeling projects an overall increase in the number of snags across the bioregion in both alternatives. Even though both alternatives result in increased snags, there is a projected difference of about 8% more snags potentially available in Alternative S1 in the first 20 years. This difference between the alternatives decreases over each decade to approximately 6% at 120 years. This difference is partially modeled based upon the projected higher acreage burned by moderate and high severity wildfire in Alternative S1 versus S2. These burned acres are modeled to result in lethal and mixed lethal conditions, which create snags. In both alternatives, the retention of all large trees (> 30" dbh) will ensure large trees are available to be recruited as future snags.

*4.62. **Public Concern:** The SEIS should acknowledge that some canopy reduction benefits spotted owls.*

Response: The habitat relationships of the California spotted owl, in particular relationship of canopy cover to HRCAs and PACs is acknowledged as a key uncertainty in the SEIS and is of particular focus for adaptive management in Alternative S2 as described in Chapter 2.

*4.63. **Public Concern:** The SEIS should preserve structural and canopy diversity in spotted owl habitat.*

Response: One of the goals of the preferred alternative in the SEIS is to respond to concerns that impacts from large, high intensity wildland fires may pose greater risks to habitats for sensitive species than short-term risks from vegetation and fuels management activities. In this respect, the SEIS does preserve the structural and canopy diversity of owl habitats from a landscape scale perspective, and particularly over the long term. Although the revised Standards and Guidelines allow mechanical treatments inside PACs and HRCAs, the desired conditions and management intent continues to be maintenance of structural conditions that provide for persistence of owls and owl habitat. The SEIS acknowledges that structural and canopy diversity will be reduced inside PAC's and HCRAs that are treated. However, only a small percentage of the total acres in PAC's are likely to be affected, and most of these are in the defense and threat zones, which are designed to reduce the threat of catastrophic wildfire. These same PACs would receive treatment in Alternative S1, but treatments in the threat zone are limited to prescribed burning

which may require multiple burns to achieve effective fuels reduction. Fuels treatments in PACs and HRCAs allow for structural diversity to return relatively quickly compared to PACs and HRCAs that are destroyed by high intensity wildfires.

*4.64. **Public Concern:** The Forest Plan Amendment should retain one acre patches of suitable nesting habitat in areas otherwise not recognized as suitable for spotted owl nesting.*

Response: The Final EIS called for the identification of CWHR stands 5M, 5D, and 6 of at least 1 acre in size. However, fuels reduction treatments were still allowed in these stands (SNFPA ROD page A-26) but with a 12" dbh limit on the tree diameter that could be removed. Implementation of the prescriptive Standards and Guidelines for these stands proved difficult and impractical to implement when stands were less than 5 acres in size (SNFPA Management Review and Recommendations, page 34). Although the SEIS does not retain the requirement for a separate and distinct fuels treatment prescription for these CWHR stand types, but instead relies on a single Standard and Guideline across all land allocations, the distinctions between land allocations remain. Under the preferred alternative (S2), each land allocation has a set of desired conditions, management intents, and management objectives. For OFEA's and General Forest land allocations, the desired conditions are based on those outlined in the SNFPA ROD. These elements are designed to provide direction to land managers for establishing objectives and approaches for fuels and vegetation management projects as well as individual treatments. Site-specific planning and environmental analysis would be conducted to ensure that projects were consistent with forest plan direction, which not only includes management standards and guidelines, but desired conditions, management intents, and management objectives of each land allocation as well.

The distinction between OFEA's, HRCA's, and the general forest remains intact, despite the forest-wide Standard and Guideline, because the desired condition and management intent for these land allocations has remained unchanged.

*4.65. **Public Concern:** The SEIS should actively manage habitat to reduce the threat to spotted owls from catastrophic fire.*

Response: The preferred alternative (S2) in the SEIS proposes to use a "more active management approach, where Forest Service managers use thinning, salvage, and prescribed and natural fires to make forests less susceptible to the effects of uncharacteristically severe wildland fires." Alternative S2 also "responds to concerns that impacts from large, severe wildland fires may pose greater risks to habitats for sensitive species than short-term risks from vegetation and fuels management activities" (Draft SEIS page 7). While there is uncertainty regarding the effectiveness of the strategic fuels treatment pattern proposed to be implemented across the landscape, the strategy of each alternative is meant to balance the risk to spotted owls from wildfire against the risk to spotted owls from the treatments themselves. Future management strategies will be informed by scientific information gathered during implementation of the selected alternative, particularly as a result of the adaptive management strategy of each alternative.

*4.66. **Public Concern:** The SEIS should disclose the number of spotted owl PACs destroyed by wildfire over the past ten years.*

Response: Chapter 3 of the SEIS discloses fire effects on PACs. The analysis has been improved in the Final SEIS to focus on PACs that have overlap with wildfires from 1993 to 2002. Although this analysis identified PACs that have had an influence from wildfire, the extent of effects to spotted owl habitat cannot be discerned from this simple analysis because the extent of habitat change is not captured in a format suitable for analysis at this time. Therefore, the SEIS identified effects to PACs from specific fires that have occurred within the last 5 years because data was readily available for these specific fires. The effects of future fires on spotted owl PACs is estimated based upon the rate of recent losses and projected

rates of wildfires based upon recent fire history. Factored in to these projections are estimated reductions in future wildfires as a result of implementing the strategic landscape fire and fuels treatments. There is uncertainty regarding these future wildfires as discussed in the SEIS.

4.67. Public Concern: *The SEIS cannot estimate the magnitude of possible future impacts to spotted owl populations under the preferred alternative without projecting the number of PACs that would be rendered unsuitable under this alternative.*

Response: The SEIS does not "project" the number of PACs that will be lost annually due to fire, but rather uses empirical data to calculate the rate of loss since 1998. Although the SEIS does not project the estimated number of PACs that would be rendered unsuitable under treatments of the alternatives, and thus the absolute magnitude of future impacts to spotted owls cannot be estimated, the direction of change in severity of impacts can be reasonably estimated. With the more aggressive fuels treatments called for under the preferred alternative (Alternative S2), it is projected that the size and intensity of future wildfires will be reduced which should result in a concurrent reduction in the loss of PACs from wildfire.

4.68. Public Concern: *The SEIS should not rely on private timberlands to contribute to spotted owl viability. Private industrial timberlands appear to be less likely to contribute to owl viability in the Sierra Nevada than they are to be a sink that draws owls away from other ownerships.*

Response: The Final SEIS acknowledges that California spotted owl habitat currently exists on portions of private timberlands adjacent to National Forest System lands and is likely used by California spotted owls. However, since the long-term distribution and suitability of habitat on private timberlands is unknown and cannot be assured, neither the Draft SEIS nor the Final SEIS analysis assumes that the presence of habitat on private lands can be relied on to mitigate effects of vegetation management on National Forest System lands. At the site-specific project level, better information may exist on the potential for private land to contribute in the short-term and long-term to owl habitat which would be reflected in the project level cumulative effects analysis.

4.69. Public Concern: *Under the preferred alternative, mechanical treatment in PACs in threat zones are likely to reduce habitat suitability, thereby compromising the effectiveness of the treated PACs.*

Response: The potential for mechanical fuel reduction treatments in PACs to result in a decrease in habitat quality and a reduction in the effectiveness of PACs is acknowledged in the SEIS. In both alternatives, the same PACs in the WUI are projected to be treated, but Alternative S2 allows the use of mechanical treatments in PACs where necessary to achieve project objectives, which can include reducing the risk of unintended damage to trees if prescribed burning was to be used alone. Although the Standards and Guidelines allow mechanical treatments inside PACs, the desired conditions and management intent continues to be maintenance of structural conditions that provide for persistence of owls and owl habitat. Management direction continues to be to avoid treating PACs to the greatest extent possible. The SEIS acknowledges that structural and canopy diversity will be reduced inside PACs that are treated which may affect habitat capability within these PACs.

The SNFPA FEIS evaluated the effects of treatments in PACs and determined that treatment in up to 5% per year and 10% per decade would be an acceptable balance between complete avoidance and treatments to reduce the landscape risk of wildfire. In evaluating sample landscapes to simulate implementation of the pattern of strategically placed area treatments, it was determined that where PAC density was high within a landscape, it was not possible to avoid all of them and implement the strategic pattern of area treatments. The difference between the alternatives regarding treatment in PACs is that in Alternative S2

there is the potential for mechanical treatments to be used within portions of 66 PACs that would only be allowed to be prescribed burned in Alternative S1. This will occur where conditions warrant, that is where prescribed burning is unlikely to be successful in reducing fuels conditions or will likely damage important habitat elements and where the landscape is suitable for mechanical equipment use. Also, portions of an additional 80 PACs outside of the WUI could receive prescribed burning in Alternative S2 that wouldn't be treated in Alternative S1 due to the limitation on PAC treatments. This evaluation is fully disclosed in chapter 4.3 of the Final SEIS.

One of the goals of the preferred alternative in the Draft SEIS is to respond to concerns that impacts from large, severe wildland fires may pose greater risks to habitats for sensitive species than the short-term risks from vegetation and fuels management activities (Draft SEIS page 7). In this respect, the SEIS does preserve the structural and canopy diversity of owl habitats from a landscape scale perspective, and particularly over the long term.

4.70. Public Concern: *The SEIS should restrict fuels treatments in all stands of CWHR classes 5M, 5D, and 6 that are large enough to serve as spotted owl nest stands. The change in Alternative S2 allows averaging across a treatment unit which would allow individual stands of CWHR 5M, 5D and 6 to be treated.*

Response: See response to Public Concerns 4.64 and 9.4.56.

Under Alternative S2, prescriptions are applied across a treatment unit (typically composed of several stands). However, analyses of effects at both the programmatic and project level scales are conducted at the stand level as necessary to evaluate and disclose effects to specific resources, such as the California spotted owl. The SEIS analysis was conducted on a stand basis rather than averaging across treatment units to estimate the effects to individual CWHR classes. Where acreages and effects to CWHR classes 5M, 5D, and 6 are discussed in the SEIS, those values represent stand based information. The opportunity to average aggregations of individual stands in order to apply treatment prescriptions simplifies implementation. Alternative S2 does not have specific direction for management within individual stands of CWHR 5M, 5D, and 6, however, direction for developing treatment prescriptions would be guided by the management intents and desired future conditions of the individual land allocations. Within PACs and HRCAs, management intents and desired future conditions guide managers to minimize changes to suitable habitat elements.

4.71. Public Concern: *The SEIS needs to better disclose the effects of mechanical fuels reduction activities upon spotted owl habitat. The SEIS acknowledges that "heavy thins", group selections, and SPLATs are likely to have a low probability of retaining structural attributes of spotted owl habitat but the effects have not been assessed. Impacts of timber harvest in the nest core areas should be disclosed. Treatments following the CASPO Interim Guidelines were not intended to be a long-term strategy.*

Response: The assessment of risks associated with short term structural changes to habitat capable of supporting the spotted owl are discussed in several places in the SEIS, particularly in Chapter 4. Specific analysis is provided for key areas of importance to spotted owls: PACs and HRCAs. The effects of reductions in these habitat elements are disclosed in the SEIS and reflected in the cumulative effects in terms of expected effects to the amounts of suitable habitat and spotted owl populations.

Alternative S2 allows mechanical treatments within PACs in the threat zone where prescribed burning alone will not achieve fuels reduction objectives or would likely damage important owl habitat elements and where the PAC cannot be avoided when developing the landscape strategic fuels treatment areas. Where mechanical treatments are used in the threat zone, the same 500-foot radius buffer would apply. Alternative S1 allows the use of hand treatment, including handline construction, tree pruning, and

removing small trees (less than 6" dbh) from a 1- to 2-acre area surrounding nest trees to reduce the risk of unintended damage during prescribed burning. Alternative S2 allows this hand treatment to occur anywhere within a PAC that is being prescribed burned, where burning is likely to damage important habitat elements. Within a PAC, this provides the opportunity to isolate stands of trees or other habitat elements (snags and down logs) with handlines or thinning seedlings and saplings to reduce the risk of damage to residual trees from torching. In some cases tree pruning can also be used to retain understory seedlings and saplings while reducing the risk of damage to residual trees.

Areas requiring treatment in HRCAs would be the same under both alternatives, however, Standards and Guidelines for vegetation management for Alternative S2 allows higher intensity treatments within HRCAs. The management intent of Alternative S2 is, in part, to retain existing suitable habitat, recognizing that habitat within treated areas may be modified to meet fuels objectives and treatment patterns and treatment prescriptions are to be designed to avoid the highest quality habitat, identified as CWHR 5M, 5D, and 6 wherever possible.

The SEIS explicitly provides protection for activity centers inside the defense zone, and thus distinguishes between the nest core area of a PAC and the remainder of the PAC. "Mechanical treatments are prohibited within a 500-foot radius buffer around the California spotted owl activity center" (Appendix A, California Spotted Owl).

The management direction provided in the alternatives are not intended to be long-term strategies. The SNFPA identified 5 key problem areas that were deemed to be current priorities for national forest management in the Sierra Nevada. The alternatives were designed to evaluate alternative ways to respond to various levels of management of the key problem areas. The SEIS alternatives continue to focus on the 5 key problem areas and both include an adaptive management strategy that is designed to gather information that will be used to adjust the management strategies in the future. It is expected that as this new information becomes available, the current direction will be modified.

*4.72. **Public Concern:** The SEIS should not allow the removal of medium and large tree within spotted owl habitat. Recent studies on the Lassen NF show that site occupancy, apparent survival probability and nesting success were enhanced by increased amounts of late seral forest cover type, including medium and large size trees.*

Response: Although a single Standard and Guideline is used throughout most land allocations under the preferred Alternative (Alternative S2), each land allocation, including HRCAs and PACs, has a set of desired conditions, management intents, and management objectives that will provide for management of owl habitat that results in more owl habitat developing over the long-term while considering the short-term impacts of reducing owl habitat quality. The Standard and Guideline of Alternative S2 allows trees up to 30" dbh to be removed, but the requirement to retain 40% of the basal area, consisting of the largest trees and the limits on canopy cover reduction, in each treatment unit has the effect of limiting the number of larger trees less than 30" dbh that can actually be removed. Appendix B estimates that the combination of basal area and canopy cover requirements results in average diameter limits closer to 25" dbh.

Alternative S2 recognizes the complexity of existing forest stand conditions (in terms of both spotted owl habitat and fuels conditions) and provides the flexibility for individual treatment units to have prescriptions set according to local conditions rather than applying one regional standard that does not account for local vegetation conditions. Medium/large trees, as defined by CWHR, are trees greater than 24" dbh. In both alternatives, standards and guidelines direct retention of trees greater than 30" dbh. The combination of Standards and Guidelines of Alternative S1 would generally limit removal of trees greater than 12-20" dbh directly through mechanical treatments, however, would not specifically protect them during prescribed burning and some would be lost during wildfires. Alternative S2 has fewer restrictions and could result in some trees between 24" and 29" dbh being removed during mechanical treatments. The analysis shows, however, that the amount of forested area that average trees greater than 24" dbh

continues to increase across the bioregion in both alternatives, in part due to continued growth across the treated and untreated areas and due to managing the potential losses from large high intensity wildfires. Remnant large trees will be retained within treated areas which will maintain those elements most difficult to replace. This suggests that medium and large trees will not be limiting across the Sierra Nevada bioregion as a result of proposed management activities.

4.73. Public Concern: *Alternative S2 should enhance goshawk habitat by allowing more pre-commercial thinning in PACs based upon a territory's stand condition. The limitation of 10% treatment per decade, even though it is acres instead of territories, will mean a 100-year cycle for treatments. We will lose our goshawk stands at that rate.*

Response: The Final SEIS allows for mechanical treatments in goshawk PAC's within the defense and threat zones outside of the 500-foot nest buffer when treating these areas is necessary to develop strategic placement of area treatments. Alternative S2 acknowledges that the habitat needs of goshawk are not fully understood, therefore actions to chosen to reduce the extent of large, high severity wildfires and their long-term effect on goshawks while minimizing short-term effects by minimizing disturbance in a high percentage of PACs. As new scientific information becomes available, it may identify opportunities for altering management within PACs to better address short-term and long-term sustainability of goshawk habitat.

4.74. Public Concern: *In Alternative S2, the potential for meadow conditions to be managed at levels that are less than optimal for great gray owl is high in part because there is no guidance on how to balance the competing objectives to reduce unintended and adverse impacts on grazing permit holders and to maintain and restore habitat to support viable populations of… vertebrate riparian-dependent species. The SEIS failed to disclose the uncertainty regarding the change in existing guidelines on great gray owl meadows capable of attaining 12" in height.*

Response: Alternative S1 includes one prescriptive requirement for managing herbaceous vegetation utilization in great gray owl PACs that applies across the entire Sierra Nevada. Alternative S2 recognizes the tremendous diversity of meadow conditions that naturally occurs across the Sierra Nevada and allows for more flexibility in evaluating and balancing the effects of livestock herbaceous utilization levels on great gray owls, their habitat, and their prey at the individual PAC level. Although the requirement to maintain meadow vegetation at 12" in height is removed, overall management direction is to "maintain vegetation height at a height commensurate with site capability and habitat needs of prey species." Therefore, the statement that there is "no guidance on how to balance the competing objectives to reduce unintended and adverse impacts on grazing permit holders and to maintain and restore habitat to support viable populations of …vertebrate riparian species" is not true.

Chapter 3 of the Final SEIS describes primary prey and what is known of prey habitat relationships for great gray owls. Chapter 4 acknowledges that "prey habitat relationships in regard to the height of herbaceous vegetation are largely unknown for the Sierra Nevada." To respond to this uncertainty, Alternative S2 requires that livestock herbaceous utilization levels in great gray owl PACs be set site-specifically to be able to consider existing and potential meadow conditions and prey species and to allow efficient incorporation of new scientific information on prey habitat needs relevant to those meadow conditions and great gray owl ecology in the Sierra Nevada bioregion.

*4.75. **Public Concern:** The analysis for mountain yellow-legged frog should be improved in the SEIS. The analysis should include more details on cumulative effects, impacts to genetic populations, and the locations and effectiveness of Critical Aquatic Refuges.*

Response: A detailed analysis for mountain yellow-legged frog, including cumulative effects, was completed in the SNFPA FEIS (Volume 3, Part 4.2, pages 48-62 and Part 4.4 pages 213-217). The Final SEIS tiers to the SNFPA FEIS, with new analysis for Alternatives S1 and S2 that supplements the previous analysis. Chapter 4 includes an evaluation of direct, indirect and cumulative effects from implementing the alternatives.

Cumulative effects are provided in general in the Final SEIS in Chapter 4.1 and specifically for the mountain yellow-legged frog in Chapter 4.3. Since the Final SEIS, like the SNFPA FEIS is programmatic in nature, it is not possible to describe specific cumulative effects from discrete actions. The various cumulative effects analyses considers how current habitat conditions have been or are influenced by past, present, and reasonably foreseeable future actions and trends in habitat change.

The impacts to genetic populations is acknowledged in the SNFPA FEIS and in the Final SEIS in terms of evaluating effects of the alternatives on mountain yellow-legged frog metapopulation dynamics. A conservation assessment is being prepared for this species that will provide the most current scientific information on the species distribution, habitat relationships and risks to the species. This information, when available, will be considered in evaluating project level effects to this species.

Appendix I of the SNFPA FEIS describes the rationale behind the CAR system and provides maps of each CAR and the rationale for its selection, including the species focus for each CAR (SNFPA FEIS, Volume 4, Appendix I, Part 3, pages 52-100). Both the analyses in the FEIS and the supplemental analyses in the Final SEIS discuss the concern for population isolation in terms of risks to genetic diversity and species viability. The designation of CARs is intended, in part, to protect isolated, distinct or diverse amphibian populations.

*4.76. **Public Concern**: The SEIS should require the implementation of a mountain yellow-legged frog conservation strategy.*

Response: Both Alternatives S1 and S2 call for the development of a conservation assessment for this species. Neither alternative requires the development of a conservation strategy as an intrinsic part of the alternative. However, at the project scale, implementation of the Aquatic Management Strategy, which includes a Riparian Conservation Objective analysis when treatments are planned in Riparian Conservation Areas, will help ensure mountain yellow-legged frogs and their habitats are protected under both Alternatives S1 and S2. The Aquatic Management Strategy sets goals for the maintenance and restoration of aquatic systems. Under both alternatives, Critical Aquatic Refuges have been established for several mountain yellow-legged frog populations throughout their range.

The Regional Forester can initiate the development of a conservation strategy at any point in time. A conservation assessment is a gathering of the current state of knowledge regarding a species. A conservation strategy is typically the development of an approach or approaches to management that would conserve populations and habitat for the species in both the short-term and long-term. Conservation assessments and strategies are typically prepared in consultation with other agencies, scientists, and interested and affected parties and are not action forcing documents. Conservation agreements are agency agreements or statements of intent to implement actions that further the conservation of a species. They may or may not include decisions that are action forcing, which would require NEPA analysis.

4.77. Public Concern: *The SEIS should remove introduced trout from lakes to ensure the viability of the mountain yellow-legged frog.*

Response: Both Alternatives S1 and S2 specifically call for cooperative efforts between Forest Service and California Department of Fish and Game to remove fish from some occupied sites as originally discussed in the SNFPA FEIS. Management and regulation of the fisheries resource is a state responsibility while management of the fisheries habitat is a National Forest responsibility. Any decisions to implement removal of unwanted fish species would be evaluated in compliance with NEPA and would include mitigation and monitoring measures, as appropriate, and would consider input and involvement from local governments, landowners, businesses as well as other interested individuals and agencies. Decisions to remove introduced trout will be made independent of this SEIS as a result of these cooperative efforts.

4.78. Public Concern: *Alternative S2 should protect Yosemite toad from the impacts of grazing by restricting grazing in occupied meadows. Adverse effects to streambanks, sedimentation, and canopy cover from grazing should be evaluated. If habitat is unsurveyed by January 2007, it should be assumed occupied until surveys are completed. Site specific management plans should only be implemented in association with formal adaptive management studies.*

Response: Alternatives S1 and S2 are designed to provide protection for the breeding and rearing season (dates determined locally) by excluding livestock grazing from standing water and saturated soils in wet meadows and associated stream channels and springs in occupied habitat. If physical exclusion of livestock is impractical, then livestock are to be excluded from the entire meadow until the meadow has been dry for two weeks. Both alternatives include the same Standards and Guidelines that limit the amount of streambank disturbance and amount of riparian shrub utilization which are designed to limit adverse effects to riparian areas.

Alternative S1 assumes that habitat that is not surveyed by January 2004 is occupied until surveys occur. Alternative S2 would require surveys to be completed within two years of the signing of a new ROD. In Alternative S2, there is no requirement to assume occupancy if surveys are not completed, however, it is estimated that surveys of suitable habitat within active range allotments will be completed by the end of 2004.

Alternative S2 allows development of a site-specific management plan to minimize impacts to the Yosemite toad and its habitat through managing the movement of livestock around wet areas. Such plans require annual systematic monitoring of habitat conditions and toad occupancy and population dynamics. Chapter 2 of the Final SEIS identifies formal adaptive management studies for Yosemite toads, however, the development of site-specific management plans outside of the selected study sites would not be precluded. It is expected that all site-specific management plans would be informed and adjusted accordingly as scientific information from the adaptive management studies becomes available.

4.79 Public Concern: *Under Alternative S1, "rearing season" is undefined. Under Alternative S2, rearing season is strictly defined to end when tadpoles transform, which leaves metamorphs vulnerable to trampling. The period when livestock are excluded from Yosemite toad breeding habitat should be extended to protect metamorphs.*

Response: The Final SEIS recognizes that the breeding and rearing season for Yosemite toad was undefined in the SNFPA FEIS. It has been clarified in chapter 4 to include the period from egg laying through metamorphosis. The Final SEIS acknowledges that this definition includes some risk of metamorphs being trampled by livestock. Trampling risks would be evaluated in a formal adaptive

management study in Alternative S2 and would be considered in any site-specific management plans that are developed.

4.80 ublic Concern: *The Alternative S2 proposal to allow grazing in meadows occupied by Yosemite toad needs further clarification. What mechanism would exist to review the site-specific management plan to ensure that it is effective in protecting the toad? How would a monitoring requirement reduce the impacts of grazing to this species? The cumulative effects of isolation of populations should be addressed.*

Response: See Public Concern 4.78.

The Standards and Guidelines related livestock grazing related to Yosemite toads has been clarified in the Final SEIS. Alternative S2 allows the opportunity for an interdisciplinary team to develop a site-specific management plan to minimize impacts to the Yosemite toad and its habitat through managing the movement of livestock around wet areas. Such plans are only required if alternative methods to total exclusion of livestock from occupied habitat is desired and they require annual systematic monitoring of habitat conditions and toad occupancy and population dynamics on a sample of sites within the meadow. Since the objective of the plan is to protect Yosemite toads and their habitat, adjustments in the strategy would be made if monitoring indicates that it is ineffective.

A conservation assessment is being completed for this species. The conservation assessment would evaluate risks of population isolation. Any site-specific management plans developed prior to its completion would be included in the assessment. Upon completion, the habitat relationships and species risks identified in the conservation assessment would be considered during development and improvement of site-specific management plans.

The FSEIS adds an adaptive management strategy of livestock grazing effects on Yosemite toads to further determine the impacts to the toad. The adaptive management strategy of Alternative S2 includes development of paired (grazed and ungrazed) studies on six allotments (4 on the Stanislaus NF and 2 on the Sierra NF) that would examine distribution, abundance, and demographics of Yosemite toads along with habitat parameters for a 10-year period. A better understanding of the impacts of grazing upon Yosemite toad will allow for the development of improved grazing and Yosemite toad management. The direct, indirect, and cumulative effects of implementing these studies on the Yosemite toad and its habitat will be evaluated site-specifically as the study plans are developed.

4.81 Public Concern*: The SEIS needs to improve the analysis for the willow flycatcher, including: using the best available information; conducting a cumulative effects analysis; using the conservation assessment; conducting additional survey work; and analyzing effects for each occupied grazing allotment.*

Response: The Final SEIS considers the best available information, including the recently completed Conservation Assessment for the Willow Flycatcher (Green et al. 2003). The cumulative effects of implementing the alternatives are evaluated in the determination of environmental and population outcomes in chapter 4 of the Final SEIS.

Both alternatives include direction requiring systematic survey of sites containing willow flycatchers. Evaluation of allotments affected by willow flycatchers is presented in chapter 3.2.2.5, chapter 4.2.3.5 and chapter 4.4.2 of the Final SEIS. The effects of livestock grazing on the willow flycatcher and the effects to individual permittees of specific allotments are evaluated during project planning for those individual livestock grazing allotments and additional detailed information beyond the assessement provided is not currently available. The Standard and Guidelines of Alternative S2 includes direction to evaluate and develop restoration opportunities for degraded habitat in unoccupied sites.

4.82 Public Concern: *The SEIS should include additional survey and monitoring requirements for willow flycatchers. Surveys requirements could include: Inventory of southwestern willow flycatcher occurrences in the Sierra Nevada; implementation of the Regional willow flycatcher monitoring/demography study plan; project level surveys; and/or surveys of emphasis habitats every five years. In Alternative S2, survey of emphasis habitats should be programmatic and not linked to proposed projects.*

Response: Neither alternative specifically requires surveys for the southwestern willow flycatcher. Since this subspecies is federally listed, the need for project related surveys are determined site-specifically in consultation with the FWS. The Final SEIS alternatives include requirements for systematic survey of known sites (Alternative S1) and occupied and historically occupied sites (Alternative S2). Both alternatives require survey of emphasis habitat, although Alternative S2 allows for prioritization of surveys to occur in concert with allotment or project planning such that emphasis habitat outside of active grazing allotments may be deferred until projects are planned that may affect them. The effects of deferring these surveys is discussed in Chapter 4.2.3.5 of the Final SEIS.

In Alternative S2, a conservation strategy for the willow flycatcher would be completed by May 2005. This conservation strategy would address the need for surveys in areas that are not affected by activities proposed by the alternatives. Implementation of the Regional willow flycatcher monitoring/demography study plan was identified in the Conservation Assessment for the Willow Flycatcher.

4.83 Public Concern: *The SEIS would result in adverse impacts to willow flycatcher habitat because it fails to protect historic sites, fails to allow for the addition of occupied sites to the network and allows late season grazing.*

Response: In both alternatives, 6 sites originally thought to be willow flycatcher sites have been dropped from the network as explained in Chapter 3.2.2.5 of the Final SEIS. Alternative S2 proposes to survey 5 conditionally occupied sites that have not been confirmed as having breeding season occupancy. If no detections are made to confirm breeding season occupancy, those sites would be dropped from the willow flycatcher site network. Four other sites are only documented from sightings prior to 1982, when willow flycatcher survey protocols were first established and applied in California, will be considered historically occupied sites in Alternative S2. These sites will receive systematic survey, and if willow flycatchers are detected during the breeding season, they will be re-classified as occupied sites. In both alternatives, if new territories are detected, they will be added to the known sites in Alternative S1 or occupied sites in Alternative S2. The risks to willow flycatchers associated with late season grazing was discussed in detail in the SNFPA FEIS and in the conservation assessment. The effects of these changes are addressed in chapter 4 of the Final SEIS and would be evaluated during project planning for projects implementing the selected alternative.

4.84 Public Concern: *The SEIS should include the standards and guidelines from Alternative F2 to ensure viability of the willow flycatcher because of all the action alternatives, it is the most likely to support long-term distribution and abundance of the willow flycatcher in the Sierra Nevada.*

Response: While the Standards and Guidelines from Alternative F2 may provide a higher likelihood of supporting the long-term distribution and abundance of willow flycatcher than other alternatives, the Final SEIS determined that neither Alternative S1 nor S2 would result in a trend toward federal listing for the willow flycatcher. As identified in the conservation assessment (Green et al 2003), the scientific cause of willow flycatcher decline is not known and may be due to several factors such as degraded habitat in the Sierra or loss of habitat along its migration route and/or wintering grounds. However, Alternative S1 and S2 have Standards and Guidelines that are meant to protect habitat in the Sierra Nevada bioregion and

restore known or unoccupied habitat that is degraded. These Standards and Guidelines may be augmented in the future under Alternative S2, which requires that a conservation strategy be developed by May 2005.

4.85 Public Concern: The SEIS should provide a detailed restoration plan for willow flycatcher habitat.

Response: Neither alternative requires development of a detailed restoration plan for willow flycatcher habitat. The SEIS includes Standards and Guidelines that direct an evaluation of restoration opportunities during landscape analysis in both alternatives In addition, Alternative S2 includes direction that historically occupied sites be evaluated for restoration opportunities and that actions be taken where appropriate to move the meadow toward desired conditions (Chapter 2.3). Restoration of habitat may be an aspect of site-specific meadow management strategies developed in Alternative S2 since one objective of the strategy is to provide for long-term sustainability of suitable habitat at breeding sites. Restoration plans may also be an identified component of the planned willow flycatcher conservation strategy.

4.86Public Concern: The SEIS should manage meadow hydrology to ensure that wet meadow habitats exist for the willow flycatcher breeding cycle.

Response: Meadow hydrology is one of several conditions that would be evaluated site-specifically where plans are developed in Alternative S2. Since each meadow presents a unique situation, specific direction cannot be presented at the bioregional scale.

4.87 Public Concern: The SEIS should protect historically occupied willow flycatcher breeding sites. Suggest creating willow flycatcher PACs.

Response: See Public Concern 4.83

In Alternative S2, occupied sites are sites that have had known breeding willow flycatchers since 1982. If after six years of surveys within the last 10 years, no flycatchers are found, the site becomes a historically occupied site. When a site becomes historically occupied, it is assessed as to whether the habitat is degraded. If the habitat is degraded, a restoration plan is developed for the area (Standards and Guidelines, Appendix A). Historically occupied sites are included in the systematic survey cycle. If any planning occurs in willow flycatcher habitat, it is assessed at a local level for the need of additional willow flycatcher surveys.

Neither alternative contemplates developing willow flycatcher PACs. The creation of PACs was not identified as a management recommendation in the conservation assessment (Green et al 2003).

4.88 Public Concern: The SEIS should protect unoccupied but suitable willow flycatcher habitat.

Response: See Public Concern 4.83

Both alternatives include direction to survey emphasis habitat, which is defined as suitable habitat within 5 miles of an occupied site. This should allow detecting sites most likely to be occupied during population expansion and protecting them (as known or occupied sites) as they are discovered. Both alternatives include St andards and Guidelines that limit the amount of willow browse to 20 percent of the annual leader growth of mature riparian shrubs; and require that livestock be removed from an area when browsing indicates a change in livestock preference from grazing herbaceous vegetation to browsing woody riparian vegetation. In addition, direction for herbaceous utilization and limits on the amount of streambank disturbance will help to distribute livestock and reduce impacts to willows. These Standards and Guidelines are expected to assist in the restoration of woody riparian shrub components which will provide for the maintenance and development of potential habitat for willow flycatchers.

4.89 Public Concern: *Grazing should be removed from occupied willow flycatcher sites. In Alternative S2, to ensure that no damage occurs to willow flycatcher habitat, grazing should be suspended if willow flycatcher sites receive late season grazing and meadow condition assessments are not completed.*

Response: Both alternatives require that annual utilization monitoring occur in willow flycatcher sites receiving late season grazing. They also require that meadow condition assessments be conducted every 3 years. If these meadow condition assessments indicate that habitat conditions are not supporting the willow flycatcher or trend downward then grazing would be modified or suspended.

Neither alternative specifically addresses actions to be taken if the meadow condition assessments are not completed. The Forest Service must review and approve an annual operating plan for each livestock grazing permit. Adjustments in the annual operating plan can be made to account for highly variable environmental conditions such as drought or wet weather or where there are local needs for resource protection.

4.90Public Concern: *The SEIS should provide region-wide standards for preparing site-specific management strategies to waive late season grazing. Biological evaluations that consider all potential impacts of grazing to willow flycatchers and their habitat should be prepared before adopting and implementing the proposed management strategy.*

Response: Neither alternative provides region-wide standards for preparing site-specific willow flycatcher management strategies. Meadow conditions and livestock grazing operations vary widely across the Sierra Nevada such that each site-specific strategy will likely be unique. The conservation assessment for the willow flycatcher (Green et al. 2003) provides the most current assessment of habitat requirements and risks to the species. Information on habitat requirements and risks contained in the conservation assessment would be considered in developing the site-specific management strategies. Forest Service policy requires that permitted actions be evaluated for effects to federally listed threatened, endangered, proposed or Forest Service sensitive species. In Alternative S2, a conservation strategy would be developed by May 2005 which may provide additional information on alternative management strategies.

4.91 Public Concern: *The SEIS should provide for active cowbird control.*

Response: In contrast to the southwestern willow flycatcher, there remains scientific uncertainty regarding the impact of brown-headed cowbird nest parasitism on Sierra Nevada populations of the willow flycatcher (Chapter 3.2.2.5, Brood Parasitism). Active cowbird control has been identified as one management action that can reduce the rate of nest parasitism where it is identified as a problem. The SEIS does not preclude local decisions to use this method where site-specific analysis determines that it is appropriate. Excluding cattle in known or occupied sites until August 31 or August 15 respectively may also help in a decrease of parasitism in Alternatives S1 and S2.

4.92 Public Concern: *The standards and guidelines for willow flycatcher are confusing and should be clarified.*

Response: Some of the standards and guidelines for willow flycatchers were confusing or appeared contradictory in SNFPA FEIS and in the Draft SEIS. These standards and guidelines have been re-written in the Final SEIS to make them easier to understand and eliminate conflict with other standards and guidelines.

4.93 Public Concern: *The SEIS should ensure that local decision-making does not harm the willow flycatcher.*

Response: Forest Service direction includes a requirement that the direct, indirect and cumulative effects on federally listed and Forest Service sensitive species be assessed as a part of local decision-making. Any Forest Service funded or permitted project that could potentially affect willow flycatcher individuals or willow flycatcher habitat would be subject to this requirement. The ultimate goal of the sensitive species list is to avoid the need for Federal listing. The conservation assessment and planned conservation strategy (Alternative S2) will help avoid Federal listing of the Sierra sub-species. The southwestern willow flycatcher is a federally listed species. In addition to the site-specific assessment described above, the U.S. Fish and Wildlife Service must concur with assessment for any project that may affect this willow flycatcher subspecies and they may require additional terms and conditions that must be incorporated into the project.

Vegetation

4.94 Public Concern*: The Forest Plan Amendment should be aimed at modifying the existing vegetation to create sustainable forested landscapes that are fire resilient, drought resistant, and less susceptible to large-scale insect and disease damage. There needs to be a major effort to move forest structures and species compositions toward pre-settlement conditions. Alternative S2 fails to provide a meaningful way to restructure forests or adjust species composition by virtually prohibiting "forest gap regeneration."*

Response: Neither S1 or S2 are specifically designed to accomplish these objectives over the extent of the analysis area. The selection of all, or portions, of alternatives originally considered in the FEIS, would provide for higher levels of accomplishment. The primary focus, associated with S1 and S2 vegetation management, is to reduce adverse landscape-level fire effects. The inherent strategy calls for the creation of strategically-placed treatment areas, where fuel is reduced to levels expected to provide for favorable changes in wildfire effects. Some progress toward Desired Future Conditions will be possible within these treated areas, however it would be generally limited. Reestablishment of shade-intolerant conifers is permitted and can be effective in existing openings or areas of existing low levels.

4.95 Public Concern: *The Forest Plan Amendment should address the need to treat the huge plantations, resulting from past fires, that now dominant some landscapes, to develop a variety of age classes within them.*

Response: Plantations are exempt from Standards and Guidelines that define tree removal limitations and canopy cover thresholds. Local managers are able to implement appropriate treatments designed to culture vegetation to achieve the objectives described in the FEIS ROD.

4.96 Public Concern: *The Forest Plan Amendment should include a strategy to restore balanced tree species compositions and provide for a sustained source and distribution of conifer and hardwood species, both shade intolerant and shade tolerant species.*

Response: Thinning of forest stands to meet fuels reduction and forest health objectives provide the opportunity to balance tree species composition between conifer and hardwood species and favor shade intolerant over shade tolerant species. Regeneration of shade intolerant species is being proposed by small group selection harvests in the HFQLG pilot project area. The affects of these small (less than 2 acre)

openings on old forest dependent species are being rigorously monitored. Lessons learned will guide management decisions in the future.

4.97 Public Concern: *The Forest Plan Amendment should use the best available vegetation mapping technology to characterize and define the status of forest vegetation for land management planning at the bioregional scale.*

Response: Geographic Information Systems and various aerial and space based remote sensing imagery are increasingly important tools to aid natural resource mangers and responsible officials. While new technologies are constantly being developed, the Forest Service relies on the current broadly accepted technologies available, relative to the nature and scope of the resource issues being addressed. Compatibility of technologies between mixed ownerships and responsible agencies is critical to understanding the status and change of vegetation across the bio-region.

4.98 Public Concern: *The Forest Plan Amendment should revise the current seral (or condition class) indicator ratings in the Pacific Southwest Region's Range Monitoring Plant Database and Rangeland Plant List to avoid artificially inflating vegetation seral status assessments on national forest rangelands. Such artificial inflation has serious consequences, as allowable utilization levels and the application of other grazing management standards are based on the assessed seral condition of the rangeland.*

Response: The term "artificial inflation" of seral status ratings for specific grass and grasslike species is the personal opinion of the commenter.

Seral status ratings for about 200 grasses and 100 grasslike plants listed in the R5 Rangeland Plant List were determined by a number of references included in the R5 Rangeland Plant list and by a panel of Rangeland Management Specialists and Ecologists in 1999 to 2000. The information used to develop seral status was the best available information available at the time.

The scope of the SEIS is to evaluate any unintended and adverse impacts on grazing permit holders. To re-assess specific seral indicators for specific grass and grasslike species is outside the scope of this SEIS.

4.99 Public Concern: *The standards for height to live crown shown in the Draft SEIS Appendix A should be changed from "averages" to "minimums."*

Response: Height to live crown fuel reduction standards provide both average and minimum heights (SEIS Appendix A). Local prescriptions shall be developed using these standards to meet land allocation desired conditions and project goals while addressing site-specific stand attributes.

4.100 Public Concern: *The Final SEIS should include an alternative that uses the concept of a "matrix" designation, as described in the Sierra Nevada Ecosystem Project (SNEP) Report.*

Response: Both the existing SNFPA FEIS and SEIS describe land allocations and desired condition statements mirror Strategy 1, Areas of late Successional Emphasis, in the SNEP Report. SNEP, Volume 1, Chapter 6 page 101. The broad land allocation strategy of the FEIS uses Old Forest Emphasis Area and General Forest land allocations and desired condition statements that are closely related to the SNEP, Areas of Late Successional Emphasis and Matrix lands.

4.101 Public Concern: *The Forest Plan Amendment should consider a management approach designed to create adequate California spotted owl habitat while harvesting significant timber volumes.*

Response: The effects of vegetation management on old forest dependent species at risk are unknown. The SEIS proposes to balance critical fuels reduction and forest health objectives and the habitat needs of these species while learning about the effects of management actions. The preferred alternative increases the amount and quality of California spotted owl habitat and increases the amount of timber available for harvest.

4.102 Public Concern: *The Forest Plan Amendment should align protections for old-growth stands and old forest emphasis areas with the current administration's policies.*

Response: The implementation of the selected alternative, as described in the ROD, will be in compliance with the spirit of the Healthy Forest Restoration Act of 2003.

4.103 Public Concern: *The Final SEIS should disclose the limitations of the models used in the analysis to project the development of old forest conditions over time, particularly as they relate to the future abundance of habitat for species dependent on old forests, such as the California spotted owl, fisher, and marten.*

Response: A more thorough discussion on the modeling used and its limitations is included in Appendix B.3.

4.104 Public Concern: *The Final SEIS should re-consider the long-range projections for large trees.*

Response: A more thorough discussion on the modeling used for predicting large trees in Sierra Nevada forests and its limitations is included in Appendix B of the FSEIS.

4.105 Public Concern: *The snag standard and guideline for salvage efforts following large fires should be changed to require the retention of three or four of the largest snags per acre in proportion to the basal area of dead trees (or trees likely to die).*

Response: Snag retention levels following stand-replacing events, outside of 10% of the area with no salvage harvest, “shall be determined on an individual project basis” (SEIS, Appendix A, Snags, Down Wood, Post-Fire Restoration, Salvage). Snag retention levels will be determined based on land allocation desired condition statements, project objectives and local conditions.

4.106 Public Concern: *The Final SEIS should simplify the complications embedded in the proposed snag standards and guidelines, which consist of one-size-fits-all regional guidance on what should be a site-specific decision based on the magnitude of the event creating the stand-replacing condition.*

Response: Snag retention levels following stand-replacing events, outside of 10% of the area with no salvage harvest, “shall be determined on an individual project basis” (SEIS, Appendix A, Snags, Down Wood, Post-Fire Restoration, Salvage). Snag retention levels will be determined based on land allocation desired condition statements, project objectives and local conditions.

4.107 Public Concern: *The Forest Plan Amendment should reduce snag densities below projections made for Alternative S2.*

Response: Snag retention levels "shall be determined on an individual project basis." (SEIS, Appendix A, Snags, Down Wood, Post-Fire Restoration, Salvage). Snag retention levels will be determined based on land allocation desired condition statements, project objectives and local conditions.

4.108 Public Concern: *The Forest Plan Amendment should provide for snag recruitment, decreasing the required numbers of snags, but increasing the size of snags to be retained.*

Response: Snag retention levels "shall be determined on an individual project basis." (SEIS, Appendix A, Snags, Down Wood, Post-Fire Restoration, Salvage). Snag retention levels have been determined based on land allocation desired condition statements, project objectives and local conditions. It is generally recognized that larger snags are more beneficial to dependent species and more persistent in the environment.

4.109 Public Concern: *The Forest Plan Amendment should retain snag forest habitat resulting from severely burned mature forests to provide for the viability of species that depend on snag forest habitat, including but not limited to black-backed woodpeckers, olive-sided flycatchers, purple martins, and long-legged myotis bats.*

Response: Following stand replacing events, 10% of the total area affected by fire (in contiguous blocks of moderate to high severity of 1000 acres or more) no salvage harvest will be conducted. The intent is to leave some areas of high-density large snags to meet the needs of post-fire opportunistic species(SEIS, Appendix A, Snags, Down Wood, Post-Fire Restoration, Salvage).

4.110 Public Concern: *The Forest Plan Amendment should include provisions for recruiting mid-sized trees (20 to 30 inches dbh) to restore old forest conditions. This is a particular concern in eastside forests where trees larger than 30 inches dbh occur much less frequently compared to westside forests.*

Response: With the exception of small group selection (openings of less than 2 acres) in the HFQLG pilot project area, the largest existing trees will be retained in vegetation treatment areas. On the westside, 40% of the basal area of the largest trees will be retained and all trees 30 inches and greater. On the eastside, 30% of the basal area of the largest trees will be retained and all trees 30 inches and greater (SEIS, Table Ja). In hazardous fuels reduction project areas, regeneration of seedlings will not be encouraged to maintain a low volume of surface fuels and ladder fuels.

4.111. Public Concern: *The Final SEIS should assess whether desired conditions for old forest ecosystems are achievable or sustainable.*

Response: 40% of the Sierra Nevada landscape is allocated to Old Forest Emphasis Areas; where old forest conditions are protected and enhanced over time. The concept of sustainability in forest planning is based on three interdependent elements: social, economic and ecological. The overall goal of the ecological element of sustainability is to maintain healthy, diverse, and resilient native ecosystems and to maintain species native to National Forest System lands. The SNFPA FEIS and SEIS focus on the parts of ecological sustainability tied to the 5 problem areas including old forest ecosystems. The SEIS analyzes the effects of maintaining critical attributes of old forests while implementing an effective hazardous fuels reduction program.

4.112. Public Concern: *Goals for old forest ecosystems should consider the conclusions of Dr. Tom Bonnicksen's research on old forest conditions in the Sierra Nevada.*

Response: The development of alternatives S1 and S2 did not include specific strategies linked to Dr. Bonnicksen's reconstruction research findings. Given the stated emphasis on reducing the adverse effects of wildfire, as anticipated via the development of strategically-placed area treatments, only limited acreages, and limited changes, are possible. The limitations on regeneration cutting methods, outside of the HFQLG project boundary, prevent the intentional establishment of early seral stage vegetation.

4.113. Public Concern: *The Draft SEIS fails to adequately address the need to provide for large, contiguous blocks of Late Successional/Old Growth (LSOG) forests to ensure the long-term persistence of wide-ranging species, specifically the California spotted owl, fisher, and marten.*

Response: Both the SNFPA FEIS and SEIS recognize the importance of large, contiguous blocks of late successional/old growth forests. 40% of National Forest System lands within the Sierra Nevada and Modoc Plateau have been designated as Old Forest Emphasis Areas in both analyses. Management in old forest emphasis areas emphasizes protecting the highest quality remaining old forest landscapes and increasing old forest conditions.

4.114. Public Concern: *The Forest Plan Amendment should include provisions for protecting and restoring late seral forest stands.*

Response: Both the SNFPA FEIS and SEIS recognize the importance of late seral forests. 40% of National Forest System lands within the Sierra Nevada and Modoc Plateau have been designated as Old Forest Emphasis Areas in both analyses. Management in old forest emphasis areas emphasizes protecting the highest quality remaining old forest landscapes and increasing old forest conditions.

4.115. Public Concern: *The Draft SEIS presents a gross misrepresentation of the actual conclusion of the Sierra Nevada Ecosystem Project (SNEP) Report where it states that "The Sierra Nevada Ecosystem Project (SNEP) Report…found that old forest ecosystems were one of the most altered ecosystems in the Sierra Nevada Region…" in the Summary under Old forest Ecosystems and Associated Species.*

Response: The Purpose and Need for Action, relative to Old Forest Ecosystems and Associated Species, has been changed to reflect the SNEP finding. As you indicate, SNEP does not declare that old forest ecosystems were one of the most altered ecosystems in the Sierra Nevada.

4.116. Public Concern: *The Final SEIS should analyze and mitigate the preferred alternative's effects on threatened, endangered, and sensitive plants, particularly interior forest, post-fire opening, and gap-phase guilds.*

Response: The environmental effects of SEIS Alternative S2 is within the range of alternatives analyzed in the FEIS. The responsible official for the SEIS will consider analysis of affects to Vascular Plants, Bryophytes, and Fungi in the FEIS (Volume 3, Chapter 3, part 4.5 page 134) and any new scientific information that may have been developed over the past two years as part of the SEIS analysis. Mitigation measures would be developed during project level analysis, given proposed site-specific management activities and local environmental conditions.

4.117. Public Concern: *The Draft SEIS fails to assess increased risks of weed infestations posed by combining higher levels of mechanical treatments, prescribed fire treatments, and road construction with increased grazing and off highway vehicle use expected to result from implementation of the preferred alternative. The Draft SEIS fails to disclose potential increases in fire risk, economic impacts to grazing permittees, and increased risks to native plant and animal species associated with potential increases in the spread of noxious weeds under the preferred alternative.*

Response: The risks associated with Noxious Weeds in Alternative S2 are within the range of effects analyzed in the original FEIS. The prevention-based, noxious weed management strategy outlined in the FEIS, Chapter 3 is the same for all SEIS alternatives. We are not proposing any changes in the Forest Wide Standards and Guidelines for Noxious Weed Management in the SNFPA ROD (Appendix A page 30).

4.118. Public Concern: *The Forest Service's acknowledgement that the preferred alternative will increase weed spread violates numerous NFMA mandates to maintain soil productivity (36 CFR Part 219.27(a)(1)), riparian ecosystem health (36 CFR Part 219.27(e), diversity (36 CFR Part 219.27(a)(5)), and species viability (36 CFR Part 219.19).*

Response: The Forest Service's analysis of risks associated with proposed management activities and the development of effective mitigations strategies is consistent with the legal requirements of NFMA. The risks associated with Noxious Weeds in Alternative S2 are within the range of effects analyzed in the original FEIS. The prevention-based, noxious weed management strategy outlined in the FEIS, Chapter 3 is the same for all SEIS alternatives. The Forest Wide Standards and Guidelines for Noxious Weed Management in the SNFPA ROD (Appendix A page 30) is retained in the SEIS ROD.

4.119. Public Concern: *Adoption of an alternative that the Forest Service acknowledges will increase risks of noxious weed spread directly undermines a key purpose and need of the SNFPA – to combat the spread of noxious weeds.*

Response: All alternatives have some associated risks of spreading noxious weeds. An effective program of fuels reduction to modify wildland fire behavior is required to protect lives and property at risk. The risks associated with Noxious Weeds in Alternative S2 are within the range of effects analyzed in the original FEIS. The prevention based, noxious weed management strategy outlined in the FEIS, Chapter 3 is the same for all SEIS alternatives. We are not proposing any changes in the Forest Wide Standards and Guidelines for Noxious Weed Management in the SNFPA ROD (Appendix A page 30).

5. Forest Transportation System

General

5.1. Public Concern: The Forest Service should increase backcountry patrols.

Response: This comment is beyond the scope of the SEIS. Individuals may contact a local Forest Service office and request to speak with the recreation staff to share this concern.

5.2. Public Concern: The SEIS should restrict road building to protect waterways and riparian habitat.

Response: On January 12, 2001, the Forest Service issued the final National Forest System Road Management Rule. This rule revises regulations concerning management, use, and maintenance of the National Forest Transportation System. The final rule is intended to help ensure that: (1) additions to the National Forest System road network are essential for resource management and use; (2) construction, reconstruction, and maintenance of roads minimizes adverse environmental impacts; and (3) unneeded roads are decommissioned and restoration of ecological processes are initiated. Standards for new road construction, which include avoiding wetlands or minimizing effects to natural flow patterns in wetlands, have also been adopted.

The alternatives in the SEIS retain the Aquatic Management Strategy goals from the SNFPA ROD, which also provide protection to wetlands. Road system management in Sierra Nevada national forests would balance the need for public, administrative, and commercial access with the environmental impacts of roads. The full range of road management options, including construction, reconstruction, relocation, maintenance, closure, decommissioning and conversion to trails, are available under all SEIS alternatives.

Roads Infrastructure Management

5.3. Public Concern: The Forest Service should retain existing roads and trails.

Response: Road system management in Sierra Nevada national forests balances the need for public, administrative, and commercial access with environmental impacts. The full range of road management options, including construction, reconstruction, relocation, maintenance, closure, decommissioning and conversion to trails, are available under all alternatives. Before decommissioning a road or closing a road that had been used recently by the public, a site-specific analysis, in accordance with the National Environmental Policy Act, would be conducted. Scoping and public involvement would be part of the analysis process.

Site-specific road related decisions would be made at the local level. Landscape- and project-level analysis would use the Roads Analysis Process (RAP) to balance economic, access and environmental concerns of the road system. RAP is an analysis tool that helps to display the need for public, administrative, and commercial access; economic costs; and environmental concerns related to the road system. Interested public should contact the Forest and/or District where the roads they use are located, so they can advise Forest staff of their uses, be notified by the staff when actions are proposed on these roads, and participate in the analysis process.

5.4. Public Concern: The Final SEIS should incorporate the Forest Services obligations under the Forest Transportation System Management Policy. The Regional Forester is

responsible for ensuring that a multi-forest or ecoregion scale roads analysis is incorporated into all sub-basin, multi-forest, and sub-regional scale assessments conducted after January 12, 2001 (FSM 7710.42).

Response: On January 12, 2001, the Forest Service issued the final National Forest System Road Management Rule. This rule revises regulations concerning the management, use, and maintenance of the national forest transportation system. The final rule is intended to help ensure that: (1) additions to the national forest system road network are essential for resource management and use; (2) construction, reconstruction, and maintenance of roads minimize adverse environmental impacts; and (3) unneeded roads are decommissioned and restoration of ecological processes are initiated. Road system management in Sierra Nevada national forests would balance the need for public, administrative, and commercial access with the environmental impacts of roads.

On June 12, 2003, the Forest Service issued an interim directive (7710-2003-1) to Chapter 7710 *Transportation Atlas, Records, and Analysis* of the Forest Service Manual. The interim directive states, "Ongoing, large-scale ecosystem planning efforts of the Columbia River Basin and the Sierra Nevada Framework assessment are exempt from the requirements of FSM 7712.1 to conduct a roads analysis" (7712.13d - Special Implementation Considerations).

5.5. Public Concern: *The Forest service should consider the indirect costs of proposed roads.*

Response: The direct, indirect, and cumulative costs of roads, both proposed and existing, on the environment are addressed during project-level environmental analysis and the roads analysis process. The SNFPA FEIS and the FSEIS are programmatic documents and therefore do not propose specific roads. When site-specific projects are proposed, the roads analysis process would analyze the need for public, administrative, and commercial access with the economic costs and environmental concerns of the road system. The project level environmental document would display the direct, indirect, and cumulative costs of any road proposals.

5.6. Public Concern: *The Final SEIS should analyze how the Quincy Library Group road management approach differs from that of the Sierra Nevada Framework.*

Response: Environmental effects associated with implementing the Herger-Feinstein Quincy Library Group (HFQLG) Pilot Project are documented in FEIS for the HFQLG Pilot Project (August 1999). The Draft SEIS roads analysis was updated and expanded in the Final SEIS, and includes projections of miles of road construction, reconstruction, and decommissioning under each alternative. In addition, the Final SEIS includes projections specific to roads in the HFQLG Pilot Project Area and compare this information with Sierra Nevada-wide projections.

The alternatives in the SEIS retain the Aquatic Management Strategy goals from the original SNFPA ROD, which provides protection to wetlands. Road system management in Sierra Nevada national forests balances the need for public, administrative, and commercial access with the environmental impacts of roads. The full range of road management options, including construction, reconstruction, relocation, maintenance, closure, decommissioning and conversion to trails, is available in all alternatives.

5.7. Public Concern: *The Final SEIS should be consistent with the National Forest Roads Policy.*

Response: The original SNFPA ROD follows the National Roads Policy (SNFPA ROD, page 13). The Forest Service does not propose changes to the SNFPA ROD commitment to follow that National Roads Policy.

*5.8. **Public Concern:** The Final SEIS should evaluate and propose road decommissioning targets of approximately three miles for every proposed mile of new road construction, in a manner similar to that done for the HFQLG Pilot Project.*

Response: The FEIS for the HFQLG Pilot Project did not set a target for road decommissioning. The FEIS did describe projected miles of road construction, reconstruction, maintenance, and decommissioning.

The Roads Analysis Process guides road system decisions. The Roads Analysis Process compares the need for public, administrative, and commercial access with the economic costs and environmental concerns of the road system. The full range of road management options, including construction, reconstruction, relocation, maintenance, closure, decommissioning and conversion to trails, are available in all alternatives. Actual locations and miles of roadwork would be determined through project–level planning and analysis.

*5.9. **Public Concern:** The Final SEIS should analyze proposed road building impacts of Alternative S2 on aquatic and riparian habitats.*

Response: The SNFPA FEIS discusses factors that have historically influenced aquatic, riparian, and meadow ecosystems, including dams, diversions, stocking of non-native fish species, invasive migration of other species, the national forest road system, grazing practices, mining, and fire and fuels (FEIS, Volume 2, pages 194-236 and 355-368). The preferred alternative (S2) in the SEIS retains the Aquatic Management Strategy goals and riparian conservation objectives from the SNFPA ROD, which are designed to provide protection to wetlands. The Final SEIS includes additional analysis of road-related effects on aquatic and riparian habitats in Chapter 4 under "Aquatic, Riparian, and Meadow Ecosystems."

Road system management in Sierra Nevada national forests would balance the need for public, administrative, and commercial access with the environmental impacts of roads. The full range of road management options, including construction, reconstruction, relocation, maintenance, closure, decommissioning and conversion to trails, are available in all alternatives.

*5.10. **Public Concern:** The Sierra Nevada Forest Plan Amendment should prohibit new road construction.*

Response: Road system management in Sierra Nevada national forests would balance the need for public, administrative, and commercial access with the economic costs and environmental impacts of road systems. The full range of road management options, including construction, reconstruction, relocation, maintenance, closure, decommissioning and conversion to trails, are available in all alternatives. Standards for new road construction, which include avoiding wetlands or minimizing effects to natural flow patterns in wetlands, are included in both Alternatives S1 and S2.

The alternatives in the SEIS retain the Aquatic Management Strategy goals from the existing SNFPA ROD, which would also provide added protection for wetlands.

*5.11. **Public Concern:** The SEIS should provide hydrologic modeling for sediment for planned road construction.*

Response: Factors that have historically influenced aquatic, riparian, and meadow ecosystems, including dams, diversions, stocking of non-native fish species, invasive migration of other species, the national forest road system, grazing practices, mining, and fire and fuels are discussed in the SNFPA FEIS (FEIS, Volume 2, pages 94 through 236 and 355 through 368). Hydrology modeling for sediment requires much more detailed proposals than are presented in this document. Project-level environmental planning and

analysis would address sedimentation potential associated with local soil conditions and would include hydrology analysis and the Roads Analysis Process.

5.12 Public Concern: *The Final SEIS should discuss road related impacts to Sierra Nevada ecosystems and habitats.*

Response: See responses to comments 5.2, 5.5, and 5.9.

5.13. Public Concern: *The Forest Service should consider decommissioning or at least closing roads that traverse late seral stands.*

Response: The Roads Analysis Process guides road system decisions. The Roads Analysis Process compares the need for public, administrative, and commercial access with the economic costs and environmental concerns of the road system. The full range of road management options, including construction, reconstruction, relocation, maintenance, closure, decommissioning and conversion to trails, are available in all alternatives. Actual locations and miles of roads proposed for closure or decommissioning would be determined through project–level planning and environmental analysis, which would include public involvement.

5.14. Public Concern: *The Forest Service should consider public comment prior to decommissioning any forest roads.*

Response: See response to Public Concern 5.13.

Trails Infrastructure Management General

5.15. Public Concern: *The Sierra Nevada Forest Plan Amendment should protect historic emigrant trails.*

Response: Under section 106 of the National Historic Preservation Act, the Forest Service is required to identify historic properties that might be impacted by ground disturbing activities. Potential effects to historic trails, railroad grades, skid trails and ditch systems are considered during these project-specific reviews.

5.16. Public Concern: *The Sierra Nevada Forest Plan Amendment should protect the Pacific Crew Trail Corridor and viewshed.*

Response: The SEIS does not focus on recreation management. Standards and guidelines to address the five problem areas identified in the SNFPA FEIS placed some restrictions on recreation and infrastructure development in support of those activities. Potential effects to the Pacific Crest Trail Corridor and viewshed would be considered during project level planning and analysis.

6. Recreation Management

General

6.1. Public Concern: *Standards and guidelines for limited operating periods under Alternative S2 do not apply to all new activities in the vicinity of California spotted owl and northern goshawk nests and furbearer den sites. This clearly indicates that the Forest Service will abandon species preservation and resource conservation when pressured by local recreational interests.*

Response: The intent of Alternative S2 is not to "abandon species conservation and resource conservation," but to allow managers to consider local conditions in developing measures to protect California spotted owls and northern goshawks at nest sites and forest carnivores at den sites during the breeding season. Both Alternatives S1and S2 direct managers to evaluate new and ongoing activities within these protected areas and take action to minimize potential disturbance in these areas (FSEIS, Appendix A). The SEIS states that effects of the changes in the standards and guidelines for limited operating periods between Alternatives S1 and S2 are negligible, as recreation activities that require analysis under NEPA or for permit issuance generally require evaluation for effects to wildlife, and recommendations for limited operating periods could be adopted as deemed necessary at the project level.

6.2. Public Concern*: The Final SEIS should include a thorough analysis of potential impacts of the alternatives on recreation.*

Response: The SEIS provides a detailed analysis for two alternatives and summarizes the detailed analysis of the Alternatives F2 through F8 from the SNFPA FEIS. The environmental consequences for the original SNFPA alternatives are described in detail in the SNFPA FEIS and are not repeated in the SEIS. Potential impacts of Alternatives F2 through Modified F8 on recreation are described in the FEIS (Volume 2, Chapter 3, pages 475 through 500). The SEIS preferred alternative (Alternative S2) proposes changes to specific elements of the existing SNFPA ROD (Alternative S1). The analysis of environmental consequences in the SEIS focuses on potential effects associated with these changes. Effects to recreation associated with the proposed changes to the SNFPA ROD under the preferred alternative (Alternative S2) are compared to existing management direction (Alternative S1) on pages 237 through 239 of the Draft SEIS.

Both the SNFPA and the SEIS provide programmatic level analyses. It is not possible to identify with any certainty which recreation sites would be impacted and the degree to which they would be impacted. The SEIS provides regional direction that is highly dependent upon site conditions for implementation. Site conditions at developed recreation sites across the Sierra Nevada national forests are highly variable. Site conditions in RCAs would be assessed at the landscape and project level to determine whether recreational uses were consistent with aquatic conservation strategy goals and riparian conservation objectives. Changes or mitigations in recreational use to protect resource values would follow, as they do under current management direction, from site-specific, project or forest level analysis.

6.3. Public Concern: *The Final SEIS should include a scientific analysis of recreation impacts upon forest resources to justify limiting activities. Without scientific evidence to support the restrictions, recreational activities should be exempt from all standards and guidelines.*

Response: See response to Public Concern 6.2.

In June 2002, after reviewing the SNFPA ROD and FEIS, the Regional Forester listened to concerns about effects to recreation uses and subsequently issued a letter of clarification. The letter dealt with recreation issues that had surfaced during appeal of the FEIS. The letter can be found at: http://www.fs.fed.us/r5/snfpa/library/current-info/rec-issues.html

The letter clarifies the Regional Forester's intent to limit application of certain standards and guidelines in the SNFPA ROD to areas dedicated to growing vegetation. Proposed new or renewals of special use permits and recreation developments/facilities will be evaluated on their merits during site-specific environmental analysis, as required by existing regulation and Forest Service direction.

6.4. Public Concern: The Forest Service should take steps to reduce unintended and adverse impacts to recreation users and permit holders.

Response: In June of 2002, after reviewing the SNFPA ROD and FEIS, the Regional Forester listened to concerns about the effects to recreation uses and issued a letter of clarification. The letter dealt with recreation issues that had been surfaced during appeal of the FEIS. The letter can be found at: http://www.fs.fed.us/r5/snfpa/library/current-info/rec-issues.html.

The letter clarifies the Regional Forester's intent to limit the application of certain SNFPA ROD standards and guidelines to areas dedicated to growing vegetation. Proposed new or renewals of special use permits and recreation developments/facilities will be evaluated on their merits during site-specific environmental analysis, a required by existing regulation and Forest Service direction.

6.5. Public Concern: The Forest Service should select an alternative that maintains current recreation visitor day levels.

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the publics feeling and beliefs about a proposed course of action. The decision maker will consider this information when formulating a decision. Changes or mitigations in recreational use would be decided from site-specific, project or forest level analysis.

6.6. Public Concern: The Forest Service should provide for recreation management direction to be developed at the forest level.

Response: The focus of the SNFPA FEIS and the SEIS is not on recreation management, but on addressing the five problem areas identified in the "Purpose and Need" sections of these documents. The alternatives address recreation only to the extent that standards and guidelines are needed to address the five problem areas. The preferred alternative (Alternative S2) retains SNFPA ROD direction for assessing site conditions in riparian areas to determine whether recreational uses are consistent with aquatic conservation strategy goals and riparian conservation objectives. Local managers could develop changes in or mitigations for recreational uses based on local conditions. As under existing regulations and Forest Service policy, proposed changes or mitigations in recreational use would be analyzed at the local level, with public involvement, before decisions were made.

Collaboration with interested publics is a key component of the SNFPA. Federal, State, and County agencies; permit holders; user groups; and other interested parties are to be included in discussions prior to modifying current recreational uses and activities in Sierra Nevada national forests.

6.7. Public Concern: The Forest Service should not prohibit recreation in critical aquatic refuges and riparian conservation areas.

Response: The focus of the SEIS is not on recreation management. The alternatives address recreation only to the extent that standards and guidelines are needed to address the five problem areas: old forest

ecosystems and associated species; aquatic, riparian, and meadow ecosystems; fire and fuels management; noxious weeds management; and lower westside hardwood forest ecosystems. Recreational uses and activities in critical aquatic refuges and riparian conservation areas would be reviewed at landscape and project levels to assess consistency with aquatic conservation strategy goals and riparian conservation objectives. Local managers could develop changes in or mitigations for recreational uses in these areas based on local conditions. Proposed changes or mitigations in recreational use would be analyzed at the local level, with public involvement, before decisions were made.

*6.8. **Public Concern:** The Final SEIS should clarify how landscape analysis will affect recreation.*

Response: As described in the SNFPA FEIS (Volume 1, Chapter 2, Page 165): "Landscape analysis is conducted to evaluate ecosystem status and condition at a larger spatial scale than project level analysis, generally 30,000 to 50,000 acres. Landscape analyses evaluate existing uses to determine if they are supporting aquatic management strategy goals or contributing to desired conditions for threatened, endangered, and sensitive species conservation and recovery." More information on landscape analysis can be found in Appendix T of the SNFPA. Corrective action can include any number of mitigations, including, but not limited to, eliminating the activity. Decisions about changes or mitigations in recreational use to protect resource values would be made based on site-specific, project or forest level environmental analysis, which would include public involvement.

*6.9. **Public Concern:** The Final SEIS should correct camper expenditures statistics presented in the FEIS, Volume 2, Chapter 3, Part 5.6, page 459.*

Response: This table appears in the FEIS Affected Environment for Recreation. It does appear that the totals in this table may be incorrect. That aside, we did not use data on camper expenditures to analyze recreation-related economic effects in the FEIS or the FSEIS. Correcting this table would not change the results of the analysis for recreation-related economic effects.

*6.10. **Public Concern:** The Forest Service should prohibit mountain bikes on hiking trails and foot paths.*

Response: The focus of the SEIS is not on recreation management. The alternatives address recreation only to the extent that standards and guidelines are needed to address the five problem areas: old forest ecosystems and associated species; aquatic, riparian, and meadow ecosystems; fire and fuels management; noxious weeds management; and lower westside hardwood forest ecosystems.

The spectrum of recreational opportunities provided by the national forests is organized into a classification framework called the Recreation Opportunity Spectrum (ROS) under each forest plan. Each ROS class is defined by a combination of size, setting, distance from roads, and likely recreational activities and experiences. The ROS framework is used to allocate certain land areas to non-motorized recreation activities under the "primitive" and "semi-primitive non-motorized" classifications. All other ROS classifications allow varying levels of roaded access and recreational development as discussed in Chapter 3 of the FEIS (FEIS, Volume 2, Part 5.6, page 454). The ROS class for some forest roadless areas was changed by recent national direction for Roadless Area Conservation. Where a former ROS class may have permitted road construction in a roadless area under a forest plan, this opportunity is now prohibited. This effectively changes the ROS class to primitive or semi-primitive. These areas are suitable for low impact recreation. The types of recreational activities emphasized within a national forest are determined at the forest planning level through their ROS designations, and by other area- or project-level decisions.

Off-highway vehicle (OHV) travel is a legitimate use of national forest land. Each Sierra Nevada national forest has areas designated as open, restricted, or closed to OHV use, consistent with their forest plans.

OHV use is prohibited in areas classified as wilderness, and in primitive, or semi-primitive non-motorized ROS classes. Under Executive Order (EO) 11644, as amended by EO 11989, seasonal closures and designated trails may be used to mitigate impacts from OHV use. OHV recreational opportunities for each national forest are discussed in Chapter 3 of the FEIS (FEIS, Volume 2, Part 5.6, pages 463 through 465). Under the SEIS preferred alternative (Alternative S2), wheeled off-highway vehicle travel is prohibited off designated routes or outside of designated OHV open areas. Each national forest will establish its own access policies for OHV use. The standard and guideline does not affect travel by over-snow vehicles. Other changes or mitigations in recreational use and access to protect resource values would follow, as they do under existing management direction, from site-specific, project or forest level analysis.

Recreation Types/Opportunities

*6.11. **Public Concern:** The Forest Service should keep the forests open to all users and uses of the national forests. The SNFPA should not reclassify open forests as restricted. It should not eliminate roads or recreational access.*

Response: The Forest Service is supportive of public use of National Forest System lands. However, in limited number of cases, public access does conflict with a competing resource law, policy, or objective. Where desired use is known, a road may be upgraded or improved to mitigate otherwise adverse affects of its use. The existing SNFPA ROD (Alternative S1) does not make site-specific decisions about access to National Forest Service System lands; the SEIS preferred alternative (Alternative S2) does not propose to change this. National Environmental Policy Act (NEPA) procedures, including public involvement, are required for site-specific decisions to improve, close, or decommission roads. Interested individuals or groups should contact the Forest and/or District where the roads they use are located, so they can advise Forest staff of their uses and concerns, be notified by the staff when and what actions are proposed on these roads, and provide comment to the environmental analysis, thereby providing for better, more informed decisions.

Alternative S2 prohibits wheeled vehicle traffic off of designated routes, trails, and limited OHV use areas. The intent of this provision is to have all national forests designate areas for OHV use, not to eliminate OHV activities. Under the Code of Federal Regulations, the land management planning process is used to "allow, restrict, or prohibit use by specific vehicle types off roads" (36 CFR 295.2). Each national forest will designate where OHV use will occur." The public will be involved in the process of identifying designated OHV routes, trails, and OHV open riding areas per 36 CFR 295.3. In the past, each national forest developed their own sign policy of informing the public where OHV travel was allowed, restricted or prohibited per 36 CFR 295.4 and 36 CFR 261.50, 51. In the future, there will likely be a uniform sign policy for OHV travel in the Pacific Southwest Region. Public comments will be solicited prior to implementation of any region-wide policy for signing. In the meantime, forest OHV travel and sign policies remain in effect.

*6.12. **Public Concern:** The Forest Service should not restrict recreation access to protect wolverine habitat.*

Response: Recreational activities have been identified as one of the primary factors influencing wolverines in the Sierra Nevada. Under the SEIS preferred alternative, a forest carnivore specialist would verify any detection of a wolverine. An analysis of all activities within 5 miles of the detection would be conducted to determine if any impacts to the species could occur. If needed to protect wolverines, activities could be relocated or limited during breeding periods. Recreational access is not specifically identified as an activity that would be modified in the presence of wolverines. However, if the process

described above identified recreation as an impact to potential wolverine breeding, use could be relocated or limited during the breeding season.

*6.13. **Public Concern:** The SNFPA should not increase snowmobile and ORV access.*

Response: The SEIS preferred alternative (Alternative S2) has a standard and guideline that prohibits wheeled OHV travel off designated routes or outside designated OHV open areas. The SEIS alternatives do not restrict snowmobile use. Concerns regarding impacts of snowmobile use would be most effectively addressed at the forest level with public involvement. Decisions regarding changes or mitigations in recreational uses to protect resource values would be based on site-specific, project or forest level environmental analysis, with public involvement.

*6.14. **Public Concern:** The Forest Service should manage ORV use to minimize impacts to other recreational users or homes.*

Response: Under the SEIS preferred alternative, wheeled off-highway vehicle travel would be prohibited off designated routes or outside designated OHV open areas. Each national forest would establish its own access policies for OHV use. Decisions regarding changes or mitigations in recreational uses to protect resource values would be based on site-specific, project or forest level environmental analysis, with public involvement.

These local analyses would allow for consideration of conflicts between OHV users and other recreation users or homeowners.

*6.15. **Public Concern:** The SEIS should not include mountain bikes with motorized vehicle management. The SEIS should not manage bicycling.*

Response: It is not the intent of the SEIS to manage mountain bikes and OHV use together. The SEIS preferred alternative (Alternative S2) has a standard and guideline that prohibits wheeled vehicle travel off designated trail, routes, or outside designated OHV open areas (SEIS, Appendix A). Each national forest is responsible for managing mountain bike recreation based on the local use and resource needs.

*6.16. **Public Concern:** The SEIS should not place additional restrictions on recreational pack stock use. (158p183, 207p188) The SEIS should clarify the impacts of Yosemite toad management on grazing of pack and saddle stock.*

Response: The SEIS preferred alternative includes the management of recreational pack stock under the standards and guidelines for grazing. This would allow pack stock grazing to occur in occupied habitat if site-specific meadow grazing plans were developed. Upon reviewing potential impacts to recreational pack stock use associated these Draft SEIS standards and guidelines, grazing standards and guidelines in the preferred alternative in the Final SEIS will specifically exclude recreational pack stock use.

In the Final SEIS, Alternative S2 does not include specific direction for management of pack and saddle stock in occupied or essential habitat for Yosemite toads, deferring management direction to the project level. It is difficult to assess effects of this change since it is unknown to what extent local management decisions would provide similar or better levels of protection on this species or its habitat. Although direction for pack and saddle stock grazing will not be provided in Alternative S2, site-specific effects will be evaluated in biological evaluations prepared during project analysis. The primary difference between Alternatives S1 and S2 is in the timing of consideration of effects. Under Alternative S2, effects would be considered as projects became ripe for decision, and some existing special use permits that authorize pack stock grazing would not be automatically evaluated until those permits became due for renewal. However, where site-specific adverse effects were known, permits would be re-evaluated and corrective actions could be taken, which could involve altering pack or saddle stock use. At this time, the

specific contribution of pack and saddle stock use to the risk factor of direct mortality from trampling is unknown. It is assumed that the Yosemite toad conservation assessment, when completed, will better define the risk of trampling from pack and saddle stock and measures to reduce adverse risks would be developed based upon the conservation assessment, as needed.

6.17. Public Concern: *The SEIS should permit continued use of fenced meadows for grazing of pack and saddle stock.*

Response: See response to Public Concern 6.16.

6.18. Public Concern: *The SEIS should clarify the impacts of willow flycatcher management on grazing of pack and saddle stock.*

Response: Standards and guidelines for willow flycatcher management in the Draft SEIS preferred alternative apply to livestock grazing and not to pack stock use. This is further clarified in the Final SEIS.

6.19. Public Concern: *The SEIS should require commercial pack animal users to use certified weed-free feed when necessary to mitigate impacts to natural vegetation.*

Response: The SEIS preferred alternative (S2) forest-wide standards and guidelines encourages the use of certified weed free hay and straw for pack and saddle stock.

Developed Facilities, Commercial Use

6.20. Public Concern: *The SEIS should incorporate the Pacific Southwest Region clarification letter protecting existing recreation residences.*

Response: In June 2002, after reviewing the SNFPA ROD and FEIS, the Regional Forester listened to concerns about effects to recreation uses and issued a letter of clarification. The letter dealt with recreation issues that had surfaced during appeal of the FEIS. The letter can be found at: http://www.fs.fed.us/r5/snfpa/library/current-info/rec-issues.html. This letter is considered regional management direction for the existing SNFPA ROD, and as such is incorporated into Alternative S1. The SEIS preferred alternative (S2) does not propose changes to the Regional Forester's management direction provided in the clarification letter (dated June 24, 2002).

6.21. Public Concern: *The Final SEIS should identify the developed recreation sites impacted by the proposed restrictions. The FEIS and Draft SEIS are vague and unspecific with inadequate information to determine what the effects of the decision will be on permitted operations. Forest Service permittees offering recreation services and facilities to the public need to know what changes and restrictions will be imposed on access; what special use sites such as resorts, ski areas, organization camps, pack stations, campgrounds and other permitted sites, as well as outfitter-guide operations, will be affected; and, what uses and services will be allowed or restricted.*

Response: Both the FEIS and the SEIS are programmatic level environmental analyses. The alternatives analyzed in these documents provide regional direction, which is highly dependent upon site conditions for implementation. Conditions at developed recreation sites and for permitted operations are highly variable across the Sierra Nevada national forests. It is not possible to identify with certainty which recreation sites or aspects of permitted operations would be impacted and the degree to which they would

be impacted. Site conditions in riparian conservation areas and critical aquatic refuges would be assessed at landscape and project levels to determine whether recreational uses were consistent with aquatic management strategy goals and riparian conservation objectives. Local managers could propose changes in or mitigations for recreational uses in these areas based on local conditions and broad regional direction embodied in desired conditions, management goals and objectives, and standards and guidelines. As under existing regulations and Forest Service policy, proposed changes or mitigations in recreational use would be analyzed at the local level, with public involvement, before decisions were made.

*6.22. **Public Concern:** The SEIS should not characterize existing recreation facilities or special use permits as new uses upon their renewal.*

Response: The decision will include transition language, outlining a process and timeframe for amending permits for existing uses. The Forest Service must review existing permits for consistency with FP direction at the time of renewal. Actions taken on the basis of the review will be determined at the project level.

Several issues about maintenance to facilities were clarified after the FEIS (Regional Forester's clarification letter of June 24, 2002), and these have been carried forward in the SEIS. The link to this page is: http://www.fs.fed.us/r5/snfpa/implementation/clarifications.html. The clarification indicates that repairs and maintenance of existing recreational facilities and residences are considered existing uses.

*6.23. **Public Concern:** The SEIS should exempt recreation residences from wildlife protections and the aquatic management strategy.*

Response: The purpose of the SNFPA is 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 opportunities (DSEIS, page 28). The intent is to manage the national forests in compliance with all laws and regulations. Bioregional-scale effects and impacts are addressed in the FEIS and SEIS. Impacts associated with local activities and uses in the national forests are addressed during site-specific environmental planning and analysis under the National Environmental Policy Act (NEPA), which includes public involvement.

In June of 2002, after reviewing the SNFPA ROD and FEIS, the Regional Forester listened to concerns about the effects to recreation uses and issued a letter of clarification. The letter dealt with recreation issues that had been surfaced during appeal of the FEIS. The letter can be found at: http://www.fs.fed.us/r5/snfpa/library/current-info/rec-issues.html.

The letter clarifies the Regional Forester's intent to limit the application of certain SNFPA ROD standards and guidelines to areas dedicated to growing vegetation. Proposed new or renewals of special use permits and recreation developments/facilities will be evaluated on their merits during site-specific environmental analysis, as required by existing regulation and Forest Service direction.

*6.24. **Public Concern:** The Final SEIS should clarify the standards and guidelines on tree removal associated with recreation uses, facilities, and special use permits.*

Response: In June 2002, after reviewing the SNFPA ROD and FEIS, the Regional Forester listened to concerns about effects to recreation uses and issued a letter of clarification. The letter dealt with recreation issues that had surfaced during appeal of the FEIS, one of which was tree removal associated with recreation uses, facilities, and special use permits. The letter (dated June 24, 2002) can be found at: http://www.fs.fed.us/r5/snfpa/library/current-info/rec-issues.html. This letter is considered regional management direction for the existing SNFPA ROD, and as such is incorporated into Alternative S1. The

SEIS preferred alternative (S2) does not propose changes to the Regional Forester's management direction provided in the clarification letter.

*6.25. **Public Concern:** The Final SEIS should detail the impacts of aquatic and riparian standards and guidelines on recreation uses, facilities, and special use permits.*

Response: The SEIS preferred alternative (S2) retains the core elements of the SNFPA ROD Aquatic Management Strategy, including: aquatic management strategy goals, riparian conservation areas (RCAs) and critical aquatic refuges (CARs), riparian conservation objectives (RCOs), and direction pertaining to anadromous fish-producing watersheds on the Lassen National Forest. Alternative S2 retains most of the standards and guidelines for RCAs and CARs. It does however propose changes to the soil quality standards in the SNFPA ROD.

The analysis of Alternative S2 in the SEIS focuses on effects associated with the proposed changes to the existing SNFPA ROD (Alternative S1). For the most part, impacts of aquatic and riparian standards and guidelines in Alternative S2 on recreation are disclosed in the FEIS analysis of Modified Alternative 8 (FEIS, Volume 2, Chapter 3, Part 5.6, pages 488 through 494). Effects on recreation associated with the proposed changes in the SNFPA ROD aquatic and riparian standards and guidelines under Alternative S2 are discussed in Chapter 4 of the SEIS.

*6.26. **Public Concern:** The Final SEIS should clarify the impacts of standards and guidelines for protected activity centers, fisher, marten, foothill yellow-legged frog, and mountain yellow-legged frog on recreation uses, facilities, and special use permits.*

Response: Bioregional-scale effects and impacts are addressed in the FEIS and SEIS. The analysis of Alternative S2 in the SEIS focuses on effects associated with the proposed changes to the existing SNFPA ROD (Alternative S1). For the most part, effects of standards and guidelines in Alternative S2 on recreation are disclosed in the FEIS analysis of Modified Alternative 8 (FEIS, Volume 2, Chapter 3, Part 5.6, pages 481 through 494). Effects on recreation associated with the proposed changes in the SNFPA ROD standards and guidelines under Alternative S2 are discussed in Chapter 4 of the SEIS. Site-specific impacts to recreation would be analyzed as part of project-level planning and environmental analysis through the National Environmental Policy Act (NEPA) process.

7. Land Ownership and Right-Way

General

*7.1. **Public Concern:** The SEIS should ensure protections of private property rights.*

Response: Property rights, including water rights and access to private land in-holdings, are protected by law and outside the scope of this analysis.

8. Special Uses and Designations

Special Designations

8.1. Public Concern: *Roadless areas greater than 5,000 acres (or 1,000 acres if ecologically significant or adjacent to wilderness) should be kept roadless. Logging and road construction should be prohibited in roadless areas. All roadless areas should be recommended for wilderness designation by the Forest Service.*

Response: The roadless rule has been subject to a number of lawsuits in Federal district courts in Idaho, Utah, North Dakota, Wyoming, Alaska, and the District of Columbia. In one of these lawsuits, the U.S. District Court for the District of Idaho issued a nationwide preliminary injunction prohibiting implementation of the roadless rule. The preliminary injunction decision was reversed and remanded by a panel of the Ninth Circuit Court of Appeals. The Ninth Circuit's preliminary ruling held that the Forest Service's preparation of the environmental impact statement for the roadless rule was in conformance with the general statutory requirements of the National Environmental Policy Act.

Subsequently, the U.S. District Court for the District of Wyoming held that the Department had violated NEPA and the Wilderness Act in promulgating the roadless rule. As relief the court directed the roadless rule be set aside and the agency permanently enjoined from implementing 36 CFR 294.10-14. The United States did not appeal that Order, but Intervenor-Defendants have filed an appeal that is pending.

Approximately 2.2 million of the 11.6 million acres in the Sierra Nevada comprise the inventoried roadless area; this acreage does not include wilderness areas. Designating areas as wilderness requires Congressional action after recommendation by the Forest Service in forest-level plans; such recommendations are evaluated as forest plans are revised. Wilderness recommendations are beyond the scope of the SEIS.

Heritage and Cultural Resource Management

8.2. Public Concern: *The SEIS should use the best available technology to accurately define the locations of sensitive, historic archeological sties.*

Response: The survey protocols and methods for Heritage and Cultural Resource Management Program of the Forest Service meet legal requirements and rely heavily on best available technology for remote sensing, ground survey methods and geographic information systems. Requirement for use of a specific remote sensing technology for locating archeological sites is beyond the scope of the SEIS.

9. Natural Resource Management

Natural Resource Management (General)

*9.1.1. **Public Concern:** The Forest Service should re-institute a commercial timber harvest program throughout the forests of the Sierra Nevada.*

Response: The purpose of the proposed action is to adjust existing management direction to better achieve the goals of Sierra Nevada Forest Plan Amendment (SNFPA). The SNFPA review highlighted the need for refining management direction in the three broad problem areas originally identified in the SNFPA: old forest ecosystems and associated species; aquatic, riparian, and meadow ecosystems; and fire and fuels management. The review team also recommended refinements to management direction to allow implementation of the legislatively-mandated *Herger-Feinstein Quincy Library Group Forest Recovery Act* to the fullest extent, compatible with other legal mandates.

During the next 10 years, individual national forests are expected to complete revisions to their forest plans, and these revisions will address longer-term issues of sustainable outputs and size and scope of regulated harvest levels. The SEIS recognizes that the production of timber is a legitimate use of the national forests. The role of timber harvest is fundamental in sustaining long-term forest health; the economic value of forest products is an important integrated output from the suitable lands in the Sierra Nevada. As described in the FEIS, timber harvest is applied in support of, and constrained by, the need to find solutions to the problem areas identified in the purpose and need for the SNFPA (FEIS, Volume 2, Chapter 3, Part 5.1, page 377).

Additionally, capable, available suitable (CAS) lands and allowable sale quantities (ASQs) were not amended by the existing decision (SNFPA ROD, page 11) nor would they be amended by a subsequent decision for the SNFPA. Forest plan revisions will re-examine CAS and ASQ.

*9.1.2. **Public Concern:** The Forest Plan Amendment should prohibit resource extraction, mechanical treatments, road building, and off highway vehicle use in sensitive species habitat and prioritize preservation over other uses.*

Response: Forest plans are based on consideration of three interdependent elements of sustainability: social, economic, and ecological. The overall goal of the social and economic elements of sustainability is to contribute to the sustainability of social and economic systems within the planning area. The overall goal of the ecological element of sustainability is to maintain healthy, diverse, and resilient native ecosystems and to maintain species native to National Forest System lands. The Responsible Official must consider the limits of agency authorities and the opportunities afforded by the suitability and capability of the land area when developing forest plan direction.

The 9 alternatives considered in the SEIS represent a range of management strategies to address the five SNFPA problem areas, ranging from emphasis on protecting extensive areas through large reserves where human use and management is very limited (as under Alternative F2) to emphasis on active management across landscapes to provide for ecological resiliency and to allow a significant amount of human uses (as under Alternative F7). The Responsible Official has considered projected effects, risks, costs, and uncertainties associated with each of these alternatives in formulating a decision that addresses the need to reduce the buildup of excessive forest fuels and the need to conserve key habitats for at-risk species associated with old forest ecosystems.

*9.1.3. **Public Concern:** The Final SEIS should sufficiently detail the cumulative impacts of overlapping standards and guidelines for willow flycatcher, Yosemite toad, great gray owl, stream bank disturbance, and so forth on grazing permittees.*

Response: The SEIS grazing effects analysis focuses on impacts associated with proposed changes in standards and guidelines for willow flycatcher, Yosemite toad, great gray owl, and grazing utilization on grazing permittees (SEIS, Chapter 4, Grazing). This section has been updated in the Final SEIS. Both the FEIS and the SEIS are programmatic level environmental analyses. The alternatives analyzed in these documents provide regional direction, which is highly dependent upon site conditions for implementation. Conditions in specific grazing allotments are highly variable across the Sierra Nevada national forests. It is not possible to identify with certainty specific impacts to permitted operations: these would be identified during site-specific allotment management planning and environmental analysis.

*9.1.4. **Public Concern:** The Final SEIS should disclose that there is no scientific basis for the assumption that the presence of grazing activities will lead to negative impacts on the Yosemite toad.*

Response: No specific studies on the impacts of grazing on the Yosemite toad have been found in the peer-reviewed published literature. Since indirect effects from grazing, as well as trampling, have been shown to be detrimental to toad habitat, some examples of this are listed in both the FEIS and further developed in the SEIS. The adaptive management strategy for the preferred alternative (S2) in the Final SEIS includes provisions for conducting experimental analyses within several grazing allotments to assess potential impacts from grazing on Yosemite toads.

*9.1.5. **Public Concern:** The Forest Service should be more conservative in its approach to wildfire prevention and err on the side of protecting biodiversity versus actively managing to reduce the buildup of hazardous fuels.*

Response: Alternative S1 (the no action alternative) in the SEIS reflects a cautious approach for conducting activities to reduce hazardous fuels in habitats for sensitive species, particularly species associated with old forest ecosystems. Alternative S1's approach for conserving old forest ecosystems and associated species and managing fire and fuels responds to concerns that impacts from mechanical fuels treatments may pose greater risks to habitats, particularly in the short-term, than risks posed by potential wildland fires (SEIS, Chapter 2, Alternative S1). The theme of Alternative S1 is to minimize modifications to old forest conditions until more is learned about the effects of such treatments on old forest associated species. The Responsible Official has considered the effects of continuing existing management direction (Alternative S1) as well as effects associated with the other eight alternatives considered in the SEIS in formulating a decision.

*9.1.6. **Public Concern:** The Forest Plan Amendment should encourage stewardship contracting.*

Response: This comment is outside the scope of the SEIS.

*9.1.7. **Public Concern:** The preferred alternative does not provide for sustainable outputs to encourage the rebuilding of timber industry infrastructure. To meet fuels reduction objectives, the Forest Service should ensure a viable forest products industry.*

Response: The SEIS preferred alternative (S2) replaces existing SNFPA ROD fuels treatment standards and guidelines with direction that provides flexibility needed at the local level to effectively modify

wildland fire behavior. These proposed changes would allow greater opportunities for using timber sale contracts to meet a variety of management objectives.

Forest product outputs would offset some of the costs of fuels treatment and allow a larger acreage of hazardous fuels to be treated. The intent is to provide more material for commercial timber sales as part of fuels treatments, making treatments more economical and generating raw material to provide for an industry infrastructure. The Forest Service cannot evaluate the extent to which this material will ensure a viable forest products industry.

Under Alternative S2, the Herger-Feinstein Quincy Library Group pilot project and the Big Valley sustained yield unit would also produce higher levels of wood products compared to existing management direction (Alternative S1). During the next 10 years, individual national forests are expected to complete revisions to their forest plans, and these will address longer-term issues of sustainable outputs and size and scope of regulated harvest levels.

9.1.8. Public Concern: The Forest Plan Amendment should require use of the forest for non-traditional products.

Response: This comment is outside the scope of the SEIS.

9.1.9. Public Concern: The Forest Service should encourage wood products companies to reduce, reuse, and recycle.

Response: This comment is outside the scope of the SEIS.

9.1.10. Public Concern: Fuels management activities should be directed toward attaining pre-settlement conditions where surface and ladder fuels were kept to a minimum. This is not consistent with maintaining old forest, which consists of areas of mature, decadent trees that are much more susceptible to disease, insect infestation, and catastrophic wildfires.

Response: The SEIS alternatives describe different approaches for balancing needs to treat fuels with needs to maintain and enhance habitats capable of supporting species associated with old forest ecosystems. The Final SEIS description of the preferred alternative (S2) clarifies desired conditions for old forest emphasis areas and general forest to better illustrate the wide range of conditions thought to be associated with pre-settlement forests. While large trees are a common component, “mature, decadent” trees are not expected to be the dominant feature. Both Alternatives S1 and S2 have the same objectives for removing surface and ladder fuels to modify wildfire behavior and retain the key habitat attributes (large trees and canopy closure, among others) important to old forest associated species. In addition, both alternatives emphasize re-introducing fire in old forest emphasis areas.

9.1.11. Public Concern: The same vegetation management standards should apply to eastside pine as apply to the mixed conifer species.

Response: Climatic and ecological conditions are quite different in eastside pine forests compared to conifer forests on the westside of the Sierra Nevada, and the vegetation reflects these differences. For example, westside conifers typically reach much larger sizes in response to the wetter and warmer conditions there. Different management direction for eastside and westside forests is designed to account for this variation.

*9.1.12. **Public Concern:** The Final SEIS should contain more information about why more old trees are desirable and why current conditions are in deficit.*

Response: Forestry in the Sierra Nevada and elsewhere historically focused on removing the largest trees and replacing them with younger, faster growing stands. Over time, this resulted in the widespread removal of a very important ecological characteristic from extensive areas of the forested landscape. Large trees are important habitat elements for wildlife and provide other important ecological functions. The importance of large trees to the ecology of the Sierra Nevada has been described in detail in other documents. See for example, *The Sierra Nevada Ecosystem Project Report* (many places, including Volume II, Section III, Chapter 21, page 627) and the SNFPA FEIS (Volume 2, Chapter 3, Section 3.2, pages 3-63 to 3-91).

*9.1.13. **Public Concern:** The Final SEIS needs to have a specific, realistic program for adaptive management. The Final SEIS should have a strong feedback loop between conservation goals, monitoring progress toward those goals, and mechanisms to ensure appropriate changes in management direction are made when needed. Funds for adaptive management studies could come from the revenue generated from fuels treatments.*

Response: Adaptive management is a key component of the Sierra Nevada Forest Plan Amendment. The adaptive management strategy in the SEIS preferred alternative (S2) builds on the adaptive management strategy in Appendix E of the FEIS. This Appendix provides a comprehensive adaptive management strategy, and discusses the elements raised in this public concern (FEIS, Volume 4, Appendix E, pages E-1 to E-141). The description of the adaptive management strategy for Alternative S2 in the Final SEIS provides much more specific and detailed information than the description in the SEIS. The adaptive management strategy section for Alternative S2 in Chapter 2 of the Final SEIS describes (a) priority questions that must and can be answered to address key areas of scientific uncertainty, (b) ongoing research and monitoring efforts, (c) strategies for meeting information needs, including monitoring and tracking feedback loops as well as specific focused studies, and (d) mechanisms for incorporating learning into management direction through interagency participation and public involvement.

*9.1.14. **Public Concern:** The Forest Service should retain the mitigation measures specified in the HFQLG pilot project and design treatments in the pilot project area to completely avoid suitable owl habitat. The effects of implementing the HFQLG Pilot Project should be fully analyzed.*

Response: Since the release of the Draft SEIS, additional analysis has been conducted on the effects of the alternatives on the California spotted owl, including implementation of the HFQLG pilot project under Alternative S2. This analysis is included in the Final SEIS.

*9.1.15. **Public Concern:** The Forest Service should exempt the Big Valley Sustained Yield Unit and the Sagebrush Steppe/Juniper Ecosystems from the SNFPA. If not entirely exempted, it should be made very clear which parts of the SNFPA management direction actually apply to these areas.*

Response: The Big Valley Sustained Yield Unit is exempt from the existing SNFPA ROD (page 17), and this exemption is carried forward under the preferred alternative (Alternative S2). Management of sagebrush steppe and juniper ecosystems is not addressed in FEIS or SEIS, and these areas are not intended to be managed under standards and guidelines proposed in the FEIS or SEIS. These areas are to be managed in accordance with direction in existing forest plans.

*9.1.16. **Public Concern:** The Final SEIS should consider the cumulative impacts of recent developments in national forest policy in assessing the impact of this regional plan.*

Response: The assessment in the FEIS relates the alternatives under consideration to other Federal, State, and local policies, plans, and initiatives that affect the Sierra Nevada (FEIS, Volume 2, Part 1.3, pages 3 through 16). While no conflicts with laws, policies, plans, or initiatives are identified, the FEIS recognizes that conflicts were possible at the local level. The FEIS notes that all agencies routinely seek review from other governmental agencies during development of work under their authority to avoid conflicts in policies, plans, and initiatives at all levels.

The FEIS describes the relationships of national forest management to other plans, programs, and initiatives for the Sierra Nevada. Generally, the relationships do not vary by alternative, have not changed since the FEIS was completed, and most are not sensitive to the changes being proposed in this SEIS. However, some programs have changed since the FEIS was issued in ways that could make them sensitive to the changes being proposed in the SEIS. Moreover, some new programs have emerged. Information regarding these programs is described in the SEIS (Chapter 4, Cumulative Effects)

*9.1.17. **Public Concern:** Forest Service policies should allow for controlled burning and selective logging. Overstocked and dense forest conditions reduce species diversity.*

Response: The FEIS and SEIS respond to needs for protecting and increasing old forest habitats and reducing losses due to catastrophic large scale wildfire. The primary methods for accomplishing these goals are through prescribed fire and thinning. The analyses for all alternatives show reductions in habitat utility values for species dependent on early stage seral development. (For example, see the assessment for mule deer, FEIS, Volume 3, Part 4.2, page 26.) However, these reductions are not expected to be significant as there are no known vertebrate species at risk in early seral habitats. The SNFPA focus is on developing and protecting old forest habitats on Federal lands due to the loss and fragmentation of such habitats on private lands. Overstocked and dense forests are often beyond the range of forest structural characteristics that were historically present over time, and these stands are not typical of sites with high species diversity.

*9.1.18. **Public Concern:** The Forest Service should consider the cumulative effects to species dependent on old forest ecosystems from logging on private lands. Approximately 36 percent of the land within the planning area is privately owned. In certain areas, such as the checkerboard lands on the Eldorado and Tahoe National Forests, private timberlands are intensively intermingled with national forest lands. Consideration of private timberland management is particularly necessary with respect to wide-ranging, old forest associated species like the spotted owl and Pacific fisher, because these lands are an important component of owl home ranges and fisher movement corridors.*

Response: National Forest System lands and private lands are intermingled in parts of the Sierra Nevada bioregion, including some areas with alternating sections of mixed ownership. Suitable habitats for old forest species at risk currently exist on both private and public lands. The Final SEIS discusses the potential contribution of private land to habitat for California spotted owls, noting that, since the long-term distribution and suitability of habitat on private timberlands is unknown, the presence of this privately-held habitat is not assumed to mitigate effects of vegetation management on National Forest System lands.

The Forest Service considers all relevant information available in its cumulative effects analysis. This information comes from different sources with variable reliability. Published scientific studies, case studies, conservation assessments, private and public survey and monitoring results, anecdotal sightings,

and professional judgment are recognized sources of information. Information collected on private industrial timber lands and State regulations and policies for the long term sustainability of private timber lands are also considered in determining the cumulative effects of vegetation treatments on National Forest system lands. Cumulative effects related to private lands are discussed in the FEIS (FEIS, Volume 2, Chapter 3, Part 1.3, pages 9 through 11, 14, and 16 through 25). Cumulative effects related to private lands do not vary by alternative, have not changed since the FEIS was completed, and are not sensitive to the changes being proposed in this SEIS.

*9.1.19. **Public Concern:** The Draft SEIS contains no discussion of the sedimentation impacts, aquatic and watershed degradation, and soils impacts stemming from increased logging intensity.*

Response: The SEIS discloses impacts on aquatic, riparian, and meadow ecosystems related to fuels treatments under Alternatives S1 and S2 (SEIS, Chapter 4, Aquatic and Riparian Ecosystems). The Final SEIS provides an expanded analysis of potential effects related to fuels treatments and roads under Alternatives S1 and S2 on soil and water resources.

*9.1.20. **Public Concern:** The Draft SEIS contains no discussion of the need for additional timber roads and the impact of additional roads.*

Response: The amount of road construction, reconstruction and opportunities for road decommissioning is dependent on the location of locally planned vegetation treatments on the landscape. A roads analysis, which assesses needs for public, administrative, and commercial access; economic costs; and environmental concerns related to the road system, is conducted as part of landscape analysis and/or project level planning. Existing road locations are a major consideration in locating area treatments, DFPZs, and small group selection units (in the HFQLG Pilot Project area). New road construction can be minimized by developing temporary roads and long skid trails. All ground disturbing activities are mitigated in appropriate contract provisions and Best Management Practices.

The greatest potential difference between in road mileages between Alternatives S1 and S2 is attributed to roads required to access small group selection units in the HFQLG Pilot Project area. The road system needs associated with the HFQLG Pilot Project have already been analyzed in the FEIS for the HFQLG Pilot Project (August 1999). The Final SEIS has an expanded section to describe projected miles of road construction, reconstruction, and decommissioning. Impacts related to the projected road mileages are discussed under “Aquatic, Riparian, and Meadow Ecosystems” in Chapter 4 of the Final SEIS.

*9.1.21. **Public Concern:** The Draft SEIS preferred alternative does not limit the amount of “forest health” treatments allowed, which translates into additional logging.*

Response: The SEIS preferred alternative (S2) recognizes a need to protect stands and larger landscapes against excessive tree mortality associated with competition, drought, insects, fire, diseases, and other disturbances. This alternative incorporates forest health treatments primarily through strategic location of area fuels treatments. The area treatment pattern for any given landscape is based on developing a strategic layout of treatments designed to modify potential wildland fire behavior. In designing area treatment patterns, managers are directed to locate area treatments to meet other management objectives (including forest health) when it is possible to do so without compromising the primary purpose of the treatments. Fuels treatment objectives would have first priority in the design of treatment areas. However, prescriptions for treatment areas would also address identified needs for increasing stand resistance to mortality from insects and disease. Thinning of densely stocked stands could be used to reduce competition and improve tree vigor thereby reducing levels of insect- and disease-caused mortality.

Alternative S2 does not provide programmatic direction for a bioregional strategy specifically aimed at addressing broad-scale forest health problems. Treatments to address local forest health problems would be planned and analyzed at the project level. For purposes of analyzing effects associated with Alternative S2 at a bioregional scale, the interdisciplinary team assumed that forest health treatments would be incorporated into strategically placed area treatments.

*9.1.22. **Public Concern:** The Draft SEIS analysis does not address the cumulative impacts to old forest habitat and species from logging the volumes of trees specified by the plan.*

Response: The FEIS and SEIS disclose cumulative impacts to old forest ecosystems and species associated with these ecosystems. Please refer to Chapter 3 of the FEIS (FEIS, Volumes 2 and 3) and Chapter 4 of the Final SEIS for detailed cumulative effects analyses. A summary of cumulative effects is presented in the FEIS (Volume 2, Chapter 3, Part 1.3, pages 3 through 29) and in the Final SEIS, Chapter 4, Cumulative Effects. Cumulative effects related to individual species and their habitats can be found in their respective sections in these documents (FEIS, Volume 3 and SEIS, Chapter 4, Species of the Sierra Nevada)

*9.1.23. **Public Concern:** Disturbance and weed spread from mechanical machine impacts can be significant and must be considered in the preferred alternative.*

Response: The SEIS preferred alternative (S2) retains the existing SNFPA ROD noxious weeds strategy, including standards and guidelines for managing noxious weeds (SNFPA ROD, pages 6, A-15, and pages A- 30 through A-31).

*9.1.24. **Public Concern:** Please identify all assumptions underlying the modeling that shows that logging will provide more old trees. Are the uncertainty calculations based on measures of central tendency or variability? If they are based on variability (e.g. confidence intervals) what assumptions were made as to using the upper or lower end of the variability measurement to make decisions? Do these assumptions make it more or less likely that trees over 20 inches in diameter will be cut?*

Response: Logging will not provide for more old trees; however, thinning forest stands does produce greater numbers of larger trees over a shorter span of time. Thinning will also tend to make the average age of the stand older since thinning typically removes smaller and younger trees. Since the Pacific Southwest Region definitions for old growth are based on stand structure characteristics (rather than age), thinning can accelerate the development of stands that have structure similar to old growth (when defined by elements such as number of large trees, snags, and dead and down material).

The modeling appendices in FEIS (Volume 4, Appendix B) and Final SEIS (Appendix B) describe modeling assumptions used in the effects analyses. The Final SEIS also includes a sensitivity analysis to address questions about uncertainty in modeling outcomes.

*9.1.25. **Public Concern:** The Draft SEIS fails to effectively evaluate and disclose modeling uncertainties. Because the modeling results are being relied upon directly to support the need to change current management direction, it is essential to assess and disclose the ability of the model to produce robust estimates of the amount of forest to be burned by wildfire and amount of habitat grown.*

Response: Forest plans are based on consideration of three interdependent elements of sustainability: social, economic, and ecological. In making these decisions, the Responsible Official does not rely solely

on modeling results as the rationale for changing management direction; the SNFPA Review Team Report (*Sierra Nevada Forest Plan Amendment Management Review and Recommendations*, March 2003) documents a myriad of reasons to consider changes to existing management direction, including reports from experienced field personnel about implementation problems and high costs. The Final SEIS includes an appendix that more fully discloses potential errors in the modeling projections and the associated range of outcomes for a given alternative. Modeling is used to display the effects of various alternatives; modeling is not used to support a point of view or need for change. The Responsible Official must consider the limits of agency authorities, and the opportunities afforded by the suitability and capability of the land area, and the limits and variability of modeling techniques when developing plan direction.

*9.1.26. **Public Concern:** The Draft SEIS compares information from the owl demographic studies on an equal basis with predictions from the fire and fuel vegetation modeling when in fact these analyses are not similarly robust nor has the uncertainty for each been characterized equally.*

Response: The comment suggests that equal consideration is being given in the SEIS to issues that cannot be analyzed with the same degree of accuracy and certainty. There is a very high degree of uncertainty about California spotted owl population trends in the Sierra Nevada as they relate to historic owl numbers and structural changes in habitat. Fire behavior responses to fuel conditions and other factors are similarly very complicated and incompletely understood. When choosing a course of action from the Final SEIS, the Responsible Official has considered many factors, including the degrees of risk and uncertainty for important resources. This requires considerable judgment and cannot currently be based entirely on modeling projections and other available data.

9.1.27. The Final SEIS should include a comprehensive monitoring plan. All habitat retention aspects of implemented projects should be monitored.

Response: Appendix E in the FEIS describes a comprehensive strategy for monitoring. This appendix is carried forward into the SEIS as part of the preferred alternative with some specific changes in emphasis. The description of the adaptive management and monitoring strategy for Alternative S2 in the Final SEIS provides much more specific and detailed information than the description in the SEIS. The adaptive management and monitoring strategy section for Alternative S2 in the Final SEIS describes (a) priority questions that must and can be addressed to address key areas of scientific uncertainty, (b) ongoing research and monitoring efforts, (c) strategies for meeting information needs, including monitoring and tracking feedback loops as well as specific focused studies, and (d) mechanisms for incorporating learning into management direction through interagency participation and public involvement.

The strategy includes provisions for conducting implementation monitoring to determine the degree and extent to which application of standards and guidelines match with management direction and intent. Tracking and reporting on implementation of management activities provides a record of accomplishment to the public and documents the extent and distribution of activities conducted by the forests. Managers can compare the results of implementation monitoring (observed actions) with management direction (expected actions) to assess performance. Managers can respond to results of implementation monitoring quickly, and make necessary changes in management through training and improvements in management approaches and prescriptions. Interagency evaluation of activity implementation at the project level can provide the opportunity for collaborative field review of activities authorized by the decision. Implementation monitoring is based on the standards and guidelines, as well as existing laws and regulations that must be followed. Implementation monitoring data will provide information on the level of compliance (such as exceeded, met, not met, not capable of meeting) associated with each question (FEIS, Volume. 4, page E-13).

9.2.28. Public Concern: *The Forest Service should solicit public comment on the monitoring provisions being developed to supplement the Draft SEIS.*

Response: The Sierra Nevada Forest Plan Amendment FEIS and Supplement were prepared and developed in a collaborative manner, and emphasize ecological, social and economic sustainability. They are science based and stress an adaptive management approach. Public and agency participation does not end with the Final SEIS but will continue through development and implementation of monitoring and adaptive management processes. Monitoring information will be evaluated by a wide variety of interested parties and used to change management direction as necessary. The adaptive management and monitoring strategy for Alternative S2 in the Final SEIS provides further clarification.

9.1.29. Public Concern: *The Forest Service should justify approving timber sales that are based on the expired California spotted owl Environmental Analysis.*

Response: This comment is outside the scope of the SEIS.

Timber Resource Management

9.2.1. Public Concern: *The Final SEIS should describe what the future management of old growth would be when desired conditions are met. When the Sierra Nevada forests reach inventory capacity, will the Forest Service harvest trees at a rate commensurate with growth? The Forest Plan Amendment should use the tree retention standards from Alternative F4, which allowed for the removal of large trees once desired old forest conditions were achieved.*

Response: Both Alternatives S1 and S2 in the SEIS focus on protecting and increasing old forest ecosystems and large trees on the national forests, while simultaneously reducing their risk to wildfire. Both focus on fire hazard reduction by reducing the understory vegetation with thinning and prescribed fire. Alternative S2 would permit the harvest of some larger trees and would use the proceeds from the work to treat additional acres. Once fire-resilient conditions were reached, treatments would focus on maintenance. Prescribed fire and thinning are envisioned as the primary maintenance practices.

Alternatives S1 and S2 attempt to primarily reduce the adverse effects of wildfire through a variety of fuel reduction treatments. The alternatives do not directly address the accumulation of both living and dead biomass. Chapters 3 and 4 of the Final SEIS describe existing and projected stand density, indicating a continued increase in inventory. Projected harvest is a small fraction of annual growth. Future revisions of forest plans may provide for more direct consideration of this issue.

9.2.2. Public Concern: *The Forest Plan Amendment should permit timber harvest in Sierra Nevada forests.*

Response: All alternatives considered in the SEIS permit timber harvest on a portion of the landscape; the alternatives limit timber harvest in protected activity centers (PACs) for California spotted owl and northern goshawk to varying degrees. Alternative S2 would allow mechanical treatments in PACs in the wildland urban intermix zone for purposes of reducing hazardous fuels. The FEIS and SEIS discuss the effects of each alternative on production of commercial forest products (FEIS, Volume 2, Chapter 3, Part 5.1, pages 377 through 395 and FSEIS, Chapter 4, Commercial Forest Products.

*9.2.3. **Public Concern:** The Forest Plan Amendment should prohibit commercial logging in Sierra Nevada national forests.*

Response: Congress identified timber production as a legitimate and desired use of the national forests through the Forest Service Organic Administration Act (1897), Multiple Use and Sustained Yield Act (1960), and the National Forest Management Act (1976). Through these directives and annual budget appropriations, Congress continues to direct the Forest Service to plan for commercial logging on the national forests.

*9.2.4. **Public Concern:** The Final SEIS should not claim that increased logging levels will increase forest protection, or it should scientifically justify that assertion.*

Response: Alternative S2 in the SEIS was developed to provide opportunities for increasing available funds for fuels reduction work on the national forests. This alternative increases revenues by permitting the removal of some medium-sized trees from some areas. The SEIS does not suggest that removing these trees will alter stand structure in ways that significantly enhance fire protection. It is the increase in available funds from logging that can be used to increase fuels reduction work. But the work would be done on other lands. See the discussion on fuels treatment economics in the SEIS (Chapter 4, Economics of Fuels Treatments) for more information about treatment costs and the value of additional timber harvest to fuels reduction work. The Final SEIS (Chapter 4, Fire and Fuels Management) has an expanded discussion regarding the economics of fuels treatments.

*9.2.5. **Public Concern:** The Forest Plan Amendment should prohibit increased timber harvest within riparian conservation areas.*

Response: Changes in silvicultural practices in riparian conservation areas are not being considered in the SEIS. Consequently, neither Alternative S1 nor S2 would result in increases in timber harvest from riparian areas. The SEIS discusses impacts to aquatic, riparian, and meadow ecosystems projected to result from management activities, including timber salvage and area treatments (FSEIS, Aquatic, Riparian and Meadow Ecosystems). This section has been updated in the Final SEIS.

*9.2.6. **Public Concern:** The Forest Plan Amendment should permit local flexibility to implement proper silvicultural techniques.*

Response: Alternative S2 was developed in response to concerns expressed by field managers and others regarding the prescriptive approach to developing silvicultural prescriptions in the existing SNFPA ROD. (See "Key Findings" in the *Sierra Nevada Forest Plan Amendment Management Review and Recommendations* (R5-MB-012, March 2003) for additional background regarding the need for more flexibility for local managers (page 10)).

As described in the SEIS, Alternative S2 would replace many of the SNFPA ROD standards and guidelines pertaining to old forest ecosystems, associated species conservation, and fire and fuels management. Alternative S2's replacement standards and guidelines would give greater flexibility to local managers to design projects that respond to local conditions, while meeting desired future conditions unique to each land allocation (FSEIS, Chapter 2). Table Ja in the FSEIS (Chapter 2), compares existing (Alternative S1) and proposed changes (Alternative S2) in standards and guidelines. The SEIS includes a discussion about local flexibility in Chapter 2, Comparisons between Alternatives S1 and S2.

*9.2.7. **Public Concern:** The Forest Plan Amendment should use timber harvesting to improve species viability.*

Response: The principle role for timber harvesting under Alternatives S1 and S2 is to reduce hazardous fuels in a strategic manner to modify landscape-scale wildland fire behavior while enhancing the development of old forest stands. Both alternatives retain SNFPA goals for ensuring viability for species associated with these habitats.

*9.2.8. **Public Concern:** The Forest Plan Amendment should provide vegetation treatment standards for less than mature forest stands.*

Response: The SEIS provides vegetation treatment standards for earlier seral stages. See, for example, standards and guidelines for fuels reduction in shrub patches (Appendix A, Forest Wide, Vegetation Management) and plantations (Appendix A, Forest Wide, Fire).

*9.2.9. **Public Concern:** The Forest Plan Amendment should limit mechanical treatments in home range core areas and old forest emphasis areas to those needed to meet desired conditions.*

Response: Treatments, including mechanical operations, in home range core areas and old forest emphasis areas would be designed to move sites towards desired conditions. As described in Chapter 2 of the SEIS, a set of desired conditions, management intents, and vegetation and fuels management objectives would apply to each land allocation under Alternative S2. These three elements would provide direction to land managers for designing and developing fuels and vegetation management projects that were consistent with this alternative's objectives for actively managing fire and fuels, old forest ecosystems, and California spotted owl habitat. In designing the strategic layout of treatments, managers would ensure that treatment patterns and prescriptions were consistent with desired conditions, management intents, and objectives for the relevant land allocations as well as management standards and guidelines (FSEIS, Chapter 2, Alternative S2, Land Allocations).

*9.2.10. **Public Concern:** The Final SEIS should consider other diameter limitations for the tree retention standard.*

Response: Several public concerns recommend a variety of other upper diameter limits for the size of trees that can be harvested. In addition to the standards for vegetation management under Alternatives S1 and S2 (FSEIS, Chapter 2, Table Ja), other diameter limits and forestry practices are considered in Alternatives F2 through F8 brought forward from the FEIS (FEIS, Volume 4, Appendix D, pages D-5 through D-8).

*9.2.11. **Public Concern:** The Forest Plan Amendment should eliminate tree retention standards.*

Response: There are concerns that prescriptive standards, such as diameter limits for retaining trees above a certain size, can sometimes be problematic at the project level. The reason is that it is impossible to draft standards that perfectly fit all field conditions. However, the Forest Service must work with other agencies and the public to develop strategies for conserving species at risk and other resources. Moreover, some concerned citizens seek assurances that reasonable limits will be placed on management programs such as logging. Prescriptive standards have been identified as a desirable way to manage forest stands for a variety of objectives while providing some certainly about environmental protections needed by regulatory agencies and the concerned public.

*9.2.12. **Public Concern:** The Forest Service should not harvest old growth or medium-sized trees to offset thinning costs.*

Response: None of the 9 alternatives considered in the SEIS propose the harvest of large trees (trees greater than 30 inches dbh). This public concern is an issue addressed through the range of alternatives considered in the Draft SEIS, which compares effects of alternatives that could provide the opportunity to harvest medium-sized trees to offset hazardous fuels treatments costs (for example, Alternatives F4 and S2) with alternatives that would provide limited opportunities to do so (for example, Alternative S1).

The SEIS proposed action responds to direction from the Chief of the Forest Service in his *Appeal Decision on the Sierra Nevada Forest Plan Amendment Record of Decision* ((November 16, 2001) to pursue more aggressive fuels treatments while protecting old forest conditions and species at risk (FSEIS, Chapter 1, Purpose and Need). The SNFPA Review Team found that field professionals across the Sierra Nevada expressed concerns over their inability to create effective and cost-efficient fuels treatments (*Sierra Nevada Forest Plan Amendment Management Review and Recommendations*, R5-MB-012, March 2003, page 10). The SEIS preferred alternative (Alternative S2) was developed to respond to the Chief's direction and the Review Team's findings.

*9.2.13. **Public Concern:** The Forest Plan Amendment should reduce or prohibit clear cutting in the Sierra Nevada.*

Response: The Forest Service has not allowed clearcutting of green trees on the national forests of the Sierra Nevada, except for some very special cases, for many years. Clearing of vegetation for recreation, roads, or other developments often results the removal of all trees from a site. Restoration of stands killed by insects or fire also sometimes involves removal of the dead and dying trees. However, these are not widespread practices and routine forestry does not involve clearcutting. No changes to these practices are being considered in the SEIS.

*9.2.14. **Public Concern:** The Forest Plan Amendment should include gap regeneration.*

Response: Neither Alternative S1 nor S2 provide direction for gap regeneration. The SNFPA Review Team did explore the use of forest regeneration gaps as a vegetation management tool to address forest ecosystem sustainability. The Team recommended additional study and analysis to determine whether gap regeneration would be a desirable tool to achieve sustainable ecosystem structure and composition across the Sierra Nevada bioregion (*Sierra Nevada Forest Plan Amendment Management Review and Recommendations*, R5-MB-012, March 2003, page 101). Techniques for regenerating gaps through group selection are included in direction under Alternative S2 for the HFQLG Pilot Project area.

The Final SEIS (Chapter 4, "Old Forest Ecosystems") notes that, when treatment unit-wide canopy cover objectives are met, shade-intolerant species may be established. Restoration of pine species is expected to occur under both Alternatives S1 and S2. The increased availability of mechanical treatment options under Alternative S2 may result in increased openings that are suitable for successful regeneration over a greater portion of the planning area. The absence of a specific strategy to provide for restoration of shade-intolerant species under both Alternatives S1 and S2 prevents making a more detailed estimation of effects.

9.2.15. Public Concern: *The Final SEIS should address needs for intensive follow-up treatments after group selection harvest. The intensity of cultural treatments required to effectively regenerate the groups and keep them with low to moderate fire hazard is absolutely extensive.*

Response: The SEIS preferred alternative (Alternative S2) would allow group selection harvest in the HFQLG Pilot Project Area. Effects related to maintenance of group selection areas are addressed in the FEIS for the HFQLG Pilot Project (August 1999).

9.2.16. Public Concern: *The Forest Plan Amendment should allow nearby residents to collect free firewood and reduce excessive fuels.*

Response: The Forest Plan Amendment does not set fuel wood policy. Standards and guidelines in the SNFPA limit or otherwise constrain fire wood collection only where it affects one of the objectives, such as habitat or old forests. Each national forest is responsible for development and management of its fuel wood program.

Domestic Livestock Management

Grazing, General

9.3.1. Public Concern: *The Forest Plan Amendment should not increase livestock grazing or weaken the restrictions on livestock grazing.*

Response: It is not the intent of the Sierra Nevada Forest Plan Amendment (SNFPA) to increase livestock grazing or weaken restriction on livestock grazing. The intent is to protect and restore aquatic, riparian, and meadow ecosystems and provide for the viability of native plant and animal species associated with these ecosystems while minimizing any unintended and adverse impacts on grazing permittees.

The preferred alternative would change specific standards and guidelines in the existing SNFPA ROD for willow flycatcher habitat, Yosemite toad habitat, and great gray owl protected activity centers to better address species conservation within the wide array of local site conditions encountered in the field. Management direction under the preferred alternative is designed to allow local managers to tailor protections for these species based on local conditions. For more information on standards and guidelines, refer to Appendix A of the SEIS.

9.3.2. Public Concern: *The Forest Plan Amendment should strengthen existing livestock grazing restrictions to protect meadow dependent species, riparian areas, and woody vegetation.*

Response: The SNFPA represents an effort to balance the management of resource uses with needs and requirements to protect resource values. The SEIS preferred alternative (S2) would change specific standards and guidelines in the existing SNFPA ROD for willow flycatcher habitat, Yosemite toad habitat, and great gray owl protected activity centers to better address species conservation within the wide array of local site conditions encountered in the field. Management direction under the preferred alternative is designed to allow local managers to tailor protections for these species based on local conditions.

*9.3.3. **Public Concern:** The economic benefit of grazing does not justify the adverse impacts to important resources in the Sierra Nevada.*

Response: Under the Multiple-Use Sustained-Yield Act of 1960, it is the policy of Congress that the national forests are established and administered for range purposes as well as recreation, timber, watershed, wildlife and fish purposes in a sustainable manner. Under the National Forest Management Act, forest plans are required to determine areas capable of supporting grazing and suitable for grazing when compared to other resource needs. The scope of the SNFPA and this SEIS is not to determine the economic viability of grazing within the Sierra Nevada forests, but to examine management options that protect aquatic, riparian and meadow ecosystems while minimizing adverse economic impacts to grazing permittees.

*9.3.4. **Public Concern:** The Forest Plan Amendment should restrict grazing for 3 years after prescribed fires to allow re-establishment of native plants.*

Response: Approaches for achieving management objectives for fuels and vegetation treatments, including prescribed burning, are unique to each situation. The nature of the programmatic SEIS analysis does not lend itself in dealing with site-specific decisions. The nature of re-growth, local conditions, soil moisture, and type of vegetation that develops after a prescribed fire can vary tremendously, based on site-specific location. In some cases, grazing may be possible as early as 1 year after a prescribed burn to manage the re-growth of specific species in lightly burned areas; in other cases, use of an area may not be permitted until 2 or more years after treatment. These types of decisions are made at a local level, based on local conditions, resources, and site-specific environmental analysis.

*9.3.5. **Public Concern:** The Final SEIS should reconsider the standards and guidelines for percent utilization.*

Response: The utilization standards developed during the original SNFPA FEIS used the best available science and incorporated existing standards from many of the Sierra Nevada national forests (FEIS, Volume 2, Chapter 3, Part 5.3, page 401).

The SEIS represents an effort to balance the overall management of resource uses with local needs and requirements to protect resource values. Alternative S2 allows the utilization standards from the original SNFPA ROD to be modified at the local level to a limited extent to test alternative standards when current practices are maintaining rangelands in good to excellent condition. This testing will allow more site-specific utilization standards to be employed in the future.

*9.3.6. **Public Concern:** The Forest Plan Amendment should not place any additional restrictions on livestock grazing nor should it allow for increased levels of grazing.*

Response: The SNFPA represents an effort to balance the management of resource uses with needs and requirements to protect resource values. The SEIS preferred alternative would change specific standards and guidelines in the existing SNFPA ROD for willow flycatcher habitat, Yosemite toad habitat, and great gray owl protected activity centers to better address local conditions encountered in the field. Management direction under the preferred alternative is designed allow local managers to tailor protections for these species based on local conditions. For more information on standards and guidelines, refer to Appendix A of the SEIS.

*9.3.7. **Public Concern:** The SEIS should provide enough site-specific management flexibility to protect both sensitive species and grazing permittees.*

Response: See response to Public Concern 9.3.6.

*9.3.8. **Public Concern:** The SEIS should make grazing management decisions at the regional level instead of at the local level.*

Response: The intent of the SNFPA and SEIS is to facilitate change in forest plans at the bioregional level based on the five problem areas identified in the purpose and need of the SNFPA FEIS (FEIS, Volume 1, Chapter 1, pages 4 through 7). The purpose of the FEIS and the SEIS is to analyze and consider issues associated with the five problem areas common to the entire Sierra Nevada Bioregion and to bring forest plans up to date in a more efficient and consistent manner. Even though the decision authority for the SNFPA is at the Regional level, all of the national forests in the Sierra Nevada bioregion have played an active role in the effort.

*9.3.9. **Public Concern:** The Forest Service should use livestock for fire-related programs.*

Response: The SEIS alternatives maintain livestock grazing as an authorized use of national forest lands. Livestock grazing can be considered as a viable option for fuels reduction in some locations. The Angeles National Forest is using sheep to reduce fuel loading in fuelbreaks. Goats are also being used in the Berkeley area for fuels reduction. Use of livestock for fuels reduction is extremely costly since stock must be constantly herded and livestock are not often as effective as fire or mechanical treatments since livestock do not necessarily find the type and size of fuels that need to be removed palatable. In addition, livestock are not able to reduce crown closure or overhead fuels.

*9.3.10. **Public Concern:** The Forest Plan Amendment should have measurable standards rather than subjective judgments for grazing management decisions.*

Response: The preferred alternative does provide measurable standards for grazing management. For season-long management, Alternative S2 would limit utilization of grass to 30-percent (or minimum 6-inch stubble height). For meadows in late seral status, utilization sis limited to 40-percent (or minimum 4-inch stubble height). Alternative S2 would allow managers to modify the above utilization standards to test alternative standards when current practices were maintaining range in good to excellent conditions (FSEIS, Appendix A, Forest Wide, Range).

*9.3.11. **Public Concern:** The Final SEIS should consider information that grazing harms ecosystems, watersheds, and sensitive species habitats.*

Response: The SEIS preferred alternative would retain the existing SNFPA ROD aquatic management strategy goals and riparian conservation objectives designed to "preserve, restore, or enhance special aquatic features, such as meadows, lakes, ponds, bogs, fens, and wetlands, to provide the ecological conditions and processes needed to recover or enhance the viability of species that rely on these areas" (SNFPA ROD, page A-58).

The FEIS and SEIS describe how sensitive species and their habitats could be impacted by grazing under the alternatives. These analyses were based on the best available information about the current status of grazing in the Sierra Nevada and population and habitat status for sensitive species.

Willow Flycatcher and Grazing

*9.3.12. **Public Concern:** The Forest Plan Amendment should provide direction for excluding cattle from willow flycatcher habitat because cattle attract cowbirds.*

Response: The relationship of human activities, including livestock and pack stock grazing, recreation, and human habitation (private in holdings and summer homes) and brown-headed cowbird distribution in

Sierra Nevada ecosystems is not well understood (FEIS, Volume 3, Chapter 3, Part 4.4, page 158). It is unknown what factors affect brown-headed cowbird distribution or if these factors vary across the bioregion. Information on brown-headed cowbird relationships comes primarily from other areas in the west, with only a few studies from the Sierra Nevada. Specific rates of nest parasitism from brown-headed cowbirds are also not well known for the Sierra Nevada bioregion. Studies in other areas of California suggest that nest parasitism may be a concern in the Sierra Nevada.

Alternatives S1 and S2 include standards and guidelines designed to minimize grazing impacts in occupied and historically occupied willow flycatcher sites (FSEIS, Appendix A, Aquatic and Riparian, Willow Flycatcher). Both alternatives consider effects related to cowbird parasitism (FSEIS, Appendix A, Forest Wide, Willow Flycatcher).

*9.3.13. **Public Concern:** The Final SEIS should be revised to be consistent with the conclusion of the 2003 willow flycatcher Conservation Assessment.*

Response: The Final SEIS considers the best available information, including the recently completed *Conservation Assessment for the Willow Flycatcher* (Green et al. 2003).

*9.3.14. **Public Concern:** The Draft SEIS preferred alternative allows development of a management strategy designed to protect breeding habitat within the allotment and provide for long-term habitat suitability. The strategy would be developed in cooperation with the permittee and would require approval before an August 15 grazing entry. Approval of such a strategy does not guarantee implementation, may not include the appropriate expertise in its development, and may not result in direct benefits to willow flycatcher habitat at the subject grazing sites.*

Response: The site-specific willow flycatcher strategy objectives must focus on protecting the nest site and associated habitat during the breeding season and the long-term sustainability of suitable habitat at breeding sites. By approving a strategy, the designated line officer is committing to implementing actions of the strategy, in lieu of the regional standard for late season grazing after August 15 and other associated livestock management standards and guidelines. The site-specific strategy is to be developed by an interdisciplinary team working closely with the affected permittee to determine feasible livestock grazing mitigations. The interdisciplinary team would typically consist of wildlife biologists familiar with willow flycatchers and their habitat requirements, range conservationists, and hydrologists familiar with meadow hydrology. Information on habitat requirements and species and habitat risks contained in the willow flycatcher conservation assessment, which was developed by a team that included prominent Sierra Nevada willow flycatcher scientists, will be considered in developing these strategies.

*9.3.15. **Public Concern:** The Forest Plan Amendment should require that grazing permittees be involved in any monitoring conducted on grazing allotments.*

Response: The SEIS alternatives include requirements for systematic survey of known willow flycatcher sites (Alternative S1) and occupied willow flycatcher sites (Alternative S2). Both alternatives require survey of emphasis habitat, although Alternative S2 allows for prioritization of surveys to occur in concert with allotment planning

9.3.16. Public Concern: *The Forest Plan Amendment should provide regional standards for preparation of site-specific meadow management strategies for occupied willow flycatcher sites and include a requirement to conduct biological evaluations of each willow flycatcher site before implementing the proposed management strategy.*

Response: Alternative S2 provides the opportunity for the designated line officer to develop site-specific meadow management strategies specifically for willow flycatchers. Current regional standards require that the strategy objectives must focus on protecting the nest site and associated habitat during the breeding season and the long-term sustainability of suitable habitat at breeding sites. At this time, no further regional standards are provided because each strategy would respond to local conditions specific to the affected willow flycatcher site and livestock management opportunities and constraints. An evaluation of effects to willow flycatchers could be documented in either a biological evaluation or similar document or it could be incorporated directly into the strategy document. Alternative S2 also requires that a conservation strategy for the willow flycatcher be developed by May 2005 followed by a conservation agreement that directs actions to implement the strategy. These efforts are intended to replace the current direction when they are completed.

Yosemite Toad and Grazing

9.3.17. Public Concern: *The Forest Plan Amendment should not limit grazing until meadows are surveyed and Yosemite toads are found.*

Response: Alternative S1 and S2 both provide for survey requirements of suitable unoccupied habitat to be completed within a specific timeframe. Both Alternatives provide direction to survey all unoccupied suitable habitats and both alternatives would exclude livestock from occupied Yosemite toad habitat during the breeding and rearing season (FSEIS, Chapter 2, Yosemite Toad for each alternative description). Alternative S1 specifies that if surveys are not completed within 3 years of the signing of the decision, the standards and guidelines for livestock restriction would apply to all unsurveyed suitable meadows. Alternative S2 allows an additional two years from the time of a new decision to complete required surveys but does not require application of the standards and guidelines in unsurveyed suitable habitat. Surveys in Yosemite toad habitat within allotments is estimated to be completed by the end of 2004.

9.3.18. Public Concern: *The Final SEIS should address evidence that other phenomena, such as lack of natural fire intervals or fish stocking, rather than grazing, are the causes of the Yosemite toad decline.*

Response: The SNFPA FEIS discusses a variety of risk factors associated with Yosemite toad (FEIS Volume 3, Chapter 3, Part 4.4, pages 218 through 222). Multiple factors that have been adversely affecting Yosemite toad populations historically, currently, and likely to do so in the foreseeable future include pesticide drift, airborne industrial and automotive pollution, all forms of livestock grazing, disease and parasites, dams and water diversions, timber harvesting as it affects streams and meadows, recreational and other human disturbance activities in toad breeding areas, off-highway vehicles, UV-B radiation, introduced fish, extreme weather patterns, and climate change. It is unknown to what extent these factors may operate synergistically at multiple scales from a local breeding pool to range-wide, and in different combinations to extirpate local populations of the species, lower population numbers, and decrease habitat suitability.

The USDI Fish and Wildlife Service 12-month petition to list finding report, published in the Federal Register Vol. 67, No. 237 December 10, 2002, also provides an extensive list of risk factors based on the

best available science. The SEIS describes the degree of uncertainty in risk from multiple factors, including livestock grazing, on the Yosemite toad (FSEIS, Chapter 4, Yosemite Toad). The analysis concludes that livestock grazing does have an unknown impact on Yosemite toad habitat and populations.

9.3.19. Public Concern: The Forest Plan Amendment should limit or exclude livestock grazing activities in wet meadows to protect Yosemite toads.

Response: Alternatives S1 and S2 are designed to provide protection during the breeding and rearing season (dates determined locally) by excluding livestock grazing from standing water and saturated soils in wet meadows and associated stream channels and springs in occupied habitat. If physical exclusion of livestock is impractical, then livestock are to be excluded from the entire meadow until the meadow has been dry for 2 weeks.

Alternative S2 allows development of a site-specific management plan to minimize impacts to the Yosemite toad and its habitat through managing the movement of livestock around wet areas. Such plans would require annual systematic monitoring of habitat conditions and toad occupancy and population dynamics on a sample of sites. In addition, the adaptive management strategy of Alternative S2 includes development of paired (grazed and ungrazed) studies on six allotments that would examine distribution, abundance, and demographics of Yosemite toads along with habitat parameters for a 10-year period.

Wildlife and Grazing

9.3.20. Public Concern: The Final SEIS should accurately disclose the increase in grazing impacts to sensitive species under Alternative S2.

Response: The SNFPA FEIS and SEIS both present analyses of sensitive species and their habitats that would be impacted by the grazing standards and guidelines under each alternative (FEIS, Volume 3, Chapter 4FSEIS, Chapter 4, Species of the Sierra Nevada). These analyses use the best available information regarding the status of grazing in the Sierra Nevada and population and habitat status for sensitive species.

9.3.21. Public Concern: The Forest Plan Amendment should limit livestock grazing activities to protect meadow-dependent bird species, especially from the impacts of late season grazing.

Response: The intent of the SEIS is to propose and evaluate changes to the existing SNFPA ROD relative to six specific areas addressed during the review of the SNFPA (FSEIS, Chapter 1, Purpose and Need). The FEIS evaluates effects of nine alternatives on over 140 avian species. Specific key species used in the effects analysis for livestock grazing in meadows included willow flycatcher, great gray owl, and olive-sided flycatcher (FEIS, Volume 3, Part 4.2, pages 28 through 42; Volume 3, Part 4.4, pages 143 through 195; and Volume 3, Part 4.5, pages 96 through 102). Changes in the effects associated with the changes to the existing SNFPA ROD in the preferred alternative for the willow flycatcher and great gray owl are addressed in the SEIS (FSEIS, Chapter 3, Forest Service Sensitive Species).

Fire and Fuels Management

Wildland Urban Intermix

9.4.1. Public Concern: *The SEIS should justify the proposed increase in the wildland urban intermix zone (WUI) and assess the potential impacts of this expansion. The SNFPA should establish consistent delineation of defense zones.*

Response: Alternatives S1 and S2 in the SEIS do not propose to change the criteria for designating wildland urban intermix (WUI) zones established in the SNFPA ROD. The SNFPA ROD clearly states that each national forest is responsible for locally determining WUI boundaries (SNFPA ROD page A-46 and A-47).

The WUI acreages used in the FEIS analysis were based on residence density data collected during the 1990 census (FEIS, Volume 2, Chapter 3.5, pages 273, 277, and 284 through 285). After the SNFPA ROD was signed, local fire management specialists on each national forest delineated WUIs. This local information was compiled by the Pacific Southwest Region Remote Sensing Lab (RSL) and used to generate the WUI acreages presented in the SEIS.

During landscape-level analysis and project planning, local fire management specialists will continue to refine the actual extent, treatment orientation, and treatment prescriptions for each WUI based on historical fire spread and intensity. National forest WUI maps and acreages are expected to continually change as WUIs are reviewed during project-level planning.

9.4.2. Public Concern: *The defense zone should be located from the point that would trigger community evacuations (normally while the fire is a few miles from residents) and where national forest lands are contiguous enough to provide an independent effective fuel break.*

Response: Local fire management specialists would determine the actual extent, treatment orientation, and prescriptions for each WUI based on historical fire spread and intensity. The defense zone would be determined collaboratively, where local cooperators, including local law enforcement and local fire management officials, would provide assistance in establishing the logical and reasonable extent of the area called a defense zone.

9.4.3. Public Concern: *The Sierra Nevada Forest Plan Amendment should include increased community protection efforts.*

Response: Current national direction establishes a goal of conducting 70 percent of fuel treatments in the wildland urban intermix (WUI). This will be further refined in the ROD for the SEIS.

Community protection in the Sierra Nevada has become a multi-funded interagency collaborative effort. During fiscal year 2002, approximately $2 million were distributed to communities throughout the Sierra Nevada to treat hazardous fuels near national forest lands. Additional funding is also available to communities to develop fire protection strategies. The National Fire Plan's FIREWISE program and the State and private assistance arm of the Forest Service provide programs and resources to help accomplish the National Fire Plan goal for promoting community assistance. For example, numerous communities and counties now have active firesafe councils, and three FIREWISE workshops have been conducted for communities in the Sierra Nevada. These workshops were designed to assist communities in understanding the goals of the National Fire Plan and how to prepare plans to minimize impacts of future wildland fires. The workshops also provided information to help community groups find and apply for grants to enhance community protection from the adverse effects of wildland fires.

*9.4.4. **Public Concern:** The Forest Service should prioritize the protection of natural ecosystems over private property.*

Response: At the request of the President, the Secretaries of the Interior and Agriculture completed an assessment titled Managing the Impact of Wildfires on Communities and the Environment, A Report to the President in Response to the Wildfires of 2000 (September 8, 2000). This report, combined with a subsequent Forest Service report titled Protecting People and Sustaining Resources in Fire-Adapted Ecosystems: a Cohesive Strategy, simultaneous budget requests, congressional direction for substantial new appropriations for wildland fire management in fiscal years 2001 and 2002, and resulting action plans and agency strategies, are now collectively known as the National Fire Plan (NFP). The NFP includes discussions of national priority setting, funding allocations and accomplishments, and accountability mechanisms. The NFP serves as a clearinghouse with links to other Federal, State, tribal, and local fire management policies and funding initiatives.

In August 2001, a document titled A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10-Year Comprehensive Strategy (Comprehensive Strategy) was developed by the Secretaries of Agriculture and Interior and the Western State Governors Association. This document defined the core principles and goals of the Comprehensive Strategy. In May 2002, the Secretaries and governors developed the Implementation Plan for the Comprehensive Strategy. This 10-year strategy is the most recent and most specific NFP document available. NFP priorities emphasize fuels treatments in the WUI, and also provide for treating landscapes to reduce acreages currently classified in condition classes 2 and 3.

*9.4.5. **Public Concern:** The Sierra Nevada Forest Plan Amendment should prohibit mechanical treatments in protected activity centers (PACs) in the threat zone.*

Response: Objectives for wildland fire behavior in the threat zone include reducing fire intensity, reducing the likelihood of crown fire, and providing opportunities for direct attack. Based on modeling, observations by experienced firefighters, and research findings, requirements for vegetation removal in the threat zone are greater than could reasonably be expected from prescribed fire under low to moderate intensity conditions. Using prescribed fire under high intensity conditions is likely to create unacceptable stand replacement results. This is compounded by the problem that the many areas with heavy fuel loading do not allow for the safe use of prescribed fire until fuel loads are reduced through mechanical treatments.

*9.4.6. **Public Concern:** The Sierra Nevada Forest Plan Amendment should prescribe defense zone treatments to ensure that flame lengths average no greater than 4 feet.*

Response: The SEIS preferred alternative (S2) retains the standards for defense zone treatments from the SNFPA ROD, which includes an average 4-foot flame length outcome for mechanical treatments in the defense zone (SNFPA ROD, Appendix A, page A-46).

National Fire Plan

*9.4.7. **Public Concern:** The Forest Service should justify why the existing SNFPA ROD is inconsistent with the National Fire Plan.*

Response: The Pacific Southwest Regional Forester directed the SNFPA Review Team to review the existing SNFPA ROD to identify opportunities to "achieve consistency with the National Fire Plan to insure goals of community protection and forest health are accomplished" (FSEIS, Chapter 1, Background). The Review Team's findings raised concerns about the likelihood of successful

implementation of the existing SNFPA ROD's fire and fuels management strategy (*Sierra Nevada Forest Plan Amendment (SNFPA) Management Review and Recommendations*, pages 10 through 34). These findings cast doubt on the ability of Sierra Nevada national forests to meet the *Implementation Plan for the Comprehensive Strategy* (May 2002) and, by extension, achieve consistency with the National Fire Plan (SNFPA Management Review and Recommendations, page 45).

*9.4.8. **Public Concern:** The Sierra Nevada Forest Plan Amendment should be consistent with the National Fire Plan and other national polices.*

Response: A key element of the SNFPA Review was to identify opportunities to "achieve consistency with the National Fire Plan to insure goals of community protection and forest health are accomplished" (FSEIS, Chapter 1, Background). In May 2002, the Secretaries of Agriculture and Interior and the western governors developed the Implementation Plan for this collaborative effort. The Regional Forester intends for the Southwest Region to achieve the goals of the National Fire Plan. Thus, the desire for management direction for the Sierra Nevada forests is to contribute to the goals and performance measures of the Implementation Plan (FSEIS, Chapter 1, Fire and Fuels). The FSEIS is consistent with the objectives set forth by the National Fire Plan and the *"*A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10-Year Comprehensive Strategy." Both the NFP and the "A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10-Year Comprehensive Strategy" emphasize the treatment of areas classified as being in Condition Classes 3 and 2 adjacent to communities at risk.

Strategically Placed Area Treatments, Defensible Fuels Profile Zones

*9.4.9. **Public Concern:** The SEIS should provide scientific evidence to support the need for tree removal from various strategic locations (including strategically placed area treatments (SPLATs) and defensible fuels profile zones) for fire risk reduction.*

Response: The FEIS summarizes findings from the Sierra Nevada Ecosystem Project (SNEP, 1996) related to fire, fuels, and fire management in the Sierra Nevada (FEIS, Volume 2, Chapter 3, Part 3.5, pages 238 through 240). The scientific basis for removing trees to effectively treat fuels is discussed in this section. The SEIS incorporates this information from the FEIS. In addition, the Final SEIS discusses fuels treatment effectiveness relative to types of treatment, acres treated, and location of treatments. The Final SEIS includes an expanded discussion regarding uncertainties about fire behavior and treatment effectiveness.

*9.4.10. **Public Concern:** The Forest Plan Amendment should not prescribe the use of strategically placed area treatments (SPLATs) to reduce wildfire hazard.*

Response: The FEIS discloses theories and assumptions about landscape fuel reduction strategies, including strategically placed area treatments. (See FEIS, Volume 2, Chapter 3, Part 3.5, pages 282 through 284.) This information is incorporated into the SEIS and is available to inform the Responsible Official. The Final SEIS discusses fuels treatment effectiveness relative to types of treatment, acres treated, and location of treatments. The Final SEIS also includes an expanded discussion regarding uncertainties about fire behavior and treatment effectiveness.

*9.4.11. **Public Concern:** The Forest Plan Amendment should provide for an array of fuels treatment strategies, including defensible fuels profile zones (DFPZs) and gaps along*

with SPLATs, complete area treatment strategies, and use of mountain meadows in fuels reduction programs.

Response: The FEIS describes a range of fuels treatment strategies that are used to varying degrees in all of the action alternatives (FEIS, Volume 1, Chapter 2, pages 11 through 14). This discussion is carried forward into the existing SNFPA ROD (pages A-11 through A-13). The intent is for local fire managers to evaluate each unique landscape and determine how strategically placed area treatments, wildland fire use, defensible fuels profile zones, and priority-setting mechanisms established through national fire management direction will work together best to achieve the desired landscape fire behavior (SNFPA ROD, page A-13). Both Alternatives S1 and S2 in the SEIS retain this direction from the existing SNFPA ROD. The Final SEIS discusses effectiveness of fuels treatments on fire behavior, citing data from recent fires and research.

Direction for strategically locating fuel reduction treatments is to "consider areas that already contribute to wildland fire behavior modification, such as different vegetation patterns, past management activities, burned areas, bodies of water, and barren areas" (FSEIS, Chapter 2, Placement of Strategically Placed Area Treatments). This could include meadows. Planning to include specific meadows into a system of strategically placed area treatments would be done during landscape and project level analyses.

*9.4.12. **Public Concern:** Draft SEIS Alternative S2 seems to be missing a commitment to a watershed approach for locating strategically placed area treatments.*

Response: The description of the preferred alternative in the Final SEIS provides explicit, detailed direction for local managers to use a landscape-scale approach for locating strategically placed area treatments.

*9.4.13. **Public Concern:** Under the Draft SEIS preferred alternative, when SPLATs and protected activity centers (PACs) overlap, PACs can be re-mapped following some explicit guidelines. Given that the SPLATs are conceptual and PACs are known to be occupied, the Forest Plan Amendment should provide direction for re-mapping the SPLATs rather than the PACs.*

Response: The SEIS preferred alternative (S2) retains the SNFPA ROD standard and guideline to review and adjust PAC boundaries as necessary to better meet habitat criteria and to encompass areas of owl activity (FSEIS, Appendix A, PACs and Den Sites, California Spotted Owl). The preferred alternative also provides direction that "if nesting or foraging habitat in PACs is mechanically treated, the treated acres are replaced by adjacent acres of comparable quality wherever possible." (DSEIS, page 46).

After release of the Draft SEIS, the interdisciplinary team reviewed habitat availability surrounding PACs, and found limited opportunities for replacing acres of PACs proposed for treatment with adjacent acres of comparable quality. PACs, by definition, are delineated to encompass the best available habitat surrounding the activity center. In many cases, land ownership patterns and vegetation patterns physically limit opportunities for replacing "adjacent acres of comparable quality."

Minor adjustments to PAC and proposed SPLAT boundaries are typically made during project planning and analysis to align on common or recognizable features, such as roads, drainages, or ridgetops. Since PAC delineation includes the *best available* habitat, additional minor adjustments can be made during project planning and analysis to avoid overlap with SPLATs.

While there are definitive habitat delineation criteria for PACs, there are no definitive spatial criteria other than to delineate PACs "in as compact a unit as possible" (FSEIS, Appendix A, PACs and Den Sites, California Spotted Owl). Local biologists typically use the following criteria to evaluate potential replacement acres for PACs: habitat quality of areas, distance of areas to activity center (current and

historic nest sites and roosts), habitat quality of adjacent areas (fragmentation), disturbance levels of areas, productivity history of the PAC, and proximity to sightings and survey effort.

The Final SEIS preferred alternative does not include regional direction for replacing PAC acres proposed for mechanical treatment. Opportunities for replacing PAC acres proposed for mechanical treatment will be considered on a site-specific basis, will usually be of minor extent, and must be evaluated during project-level environmental analysis based on local conditions.

Fuels Treatments

*9.4.14. **Public Concern:** The Forest Plan Amendment should not increase the use of prescribed fire in untreated areas in the HFQLG Pilot Project area.*

Response: The SEIS preferred alternative (Alternative S2) provides for implementation of the HFQLG Forest Recovery Act Pilot Project, including implementation of the fire and fuels management strategy mandated by the HFQLG Forest Recovery Act. Some adjustments to the standards and guidelines proposed for the rest of the Sierra Nevada bioregion will be needed to meet this objective. Pending completion of the forest plan amendments/revisions required by the HFQLG Act, management activities on the Plumas and Lassen National Forests and the Sierraville Ranger District of the Tahoe National Forest would be guided by the direction of Alternative S2 as described in the Final SEIS.

*9.4.15. **Public Concern:** The Forest Plan Amendment should allow as much prescribed fire as possible.*

Response: The SEIS displays projections of treatment types (mechanical and prescribed burning) (FSEIS, Table 4.2.4b). These projections have been updated from the Draft SEIS, accompanied by an expanded discussion regarding assumptions about treatment types and acres treated. The Final SEIS discusses the need for follow-up and maintenance treatments.

The increase in mechanically treated acres under Alternative S2 compared to Alternative S1 is attributed to a combination of increased acres in group selection in the HFQLG Pilot Project area and a change from emphasizing prescribed fire under Alternative S1 to providing greater flexibility to select appropriate fuels treatments based on local conditions under Alternative S2. Under both alternatives, it is assumed that approximately 80 percent of the treated acreage would require at least one (and most likely two) follow-up or maintenance treatments. It is expected that follow-up and maintenance treatments would use prescribed fire to meet the intent for re-introducing fire as an ecosystem process.

The Final SEIS discusses program uncertainties associated with implementing the fire and fuels management strategy in each alternative. The Final SEIS refers to the Fire Surrogate Study in a discussion about uncertainty of using mechanical treatments as surrogates for fire.

The SNFPA FEIS and the Final SEIS are programmatic documents and therefore do not propose specific fuels treatments. Local managers would propose site-specific fuels treatment projects consistent with management direction provided in the SNFPA. Project level environmental planning and analysis would involve the public and disclose the direct, indirect, and cumulative impacts of proposed fuels treatments

*9.4.16. **Public Concern:** The Final SEIS should include an analysis of the potential prescribed burn impacts to habitat. The Final SEIS should clarify treatment effects on old growth forests.*

Response: Chapter 4 of **t**he SEIS discloses the effects of treatments on old forest ecosystems. Potential effects related to treatments on habitat are described in numerous placed in Chapter 4 under Part 4.3. "Species of the Sierra Nevada."

*9.4.17. **Public Concern:** The Final SEIS should analyze the use of alternative treatments, including grazing as well as a non-logging coarse woody debris fuels treatment method, to mechanical and prescribed burning treatments.*

Response: All of the SEIS alternatives would allow grazing or non-logging coarse woody debris treatments as potential tools for reducing hazardous fuels. However, the potential negative effects of these treatment approaches would need to be weighed against potential benefits. Hand crews are still used for fuel reduction treatments depending upon availability, cost, location, and effectiveness. Actual fuel reduction treatments will be determined by local, site-specific analysis, consistent with management direction provided by the SNFPA, forest plans, and policy as well as legal requirements.

*9.4.18. **Public Concern:** The Forest Plan Amendment should target the surface fuels layer for treatment before considering treatments for other fuel layers.*

Response: Both Alternatives S1 and S2 emphasize the importance of treating surface and ladder fuels. "Fuels treatment prescriptions for SPLATs place first priority on reducing surface and ladder fuels. Crown fuels are modified to the extent necessary to reduce the potential for crown fire spread" (FSEIS, Chapter 2, Alternative S2).

The focus of activities under the SEIS preferred alternative is removal of excessive numbers of small trees, not large trees. It is the smaller trees that are making Sierra Nevada forests overly dense and prone to destructive wildfire or susceptible to insects and disease. Projected treatments aimed at modifying fire behavior to reduce the size and severity of wildfires would cover an estimated 20 to 25 percent of areas at low and mid-elevations where fire hazard and risk are highest.

*9.4.19. **Public Concern:** The Forest Service should only let wildfires burn if they are controllable. The Forest Plan Amendment should consider using wildland fire as a primary treatment for reducing wildfire threats.*

Response: The SEIS preferred alternative (S2) would retain the existing SNFPA ROD direction for implementing the Federal Wildland Fire Policy (SNFPA ROD, page 6 and Appendix A, page 12). National forests are directed to consider using lightning-caused fires to reduce fuel loads or to provide other resource benefits, such as conserving populations of fire-dependent species. Before wildland fires can be used, however, forest managers must prepare a Fire Management Plan that describes how prescribed fires and naturally caused fires will be used to achieve resource management objectives. Wildland Fire Use is discussed in the FEIS in Volume 2, Part 3.5, pages 283 through 284.

The SEIS describes how Alternatives S1 and S2 sharing overarching goals for fire and fuels management, which includes meeting ecological goals for re-introducing fire. Strategically placed area treatments (SPLATs) are first designed to change landscape wildland fire behavior; over time the goal of the treatments shifts toward restoring fire regimes and condition class across the landscape (FSEIS, Chapter 2, Common Elements of Alternatives S1 and S2). The Final SEIS discusses treatment effectiveness in modifying fire behavior across the landscape, which then facilitates the re-establishment of fire as an

ecosystem process. The use of fire in follow-up and maintenance treatments is intended to provide for re-introducing fire in treated areas.

Fuels Treatment Strategies

9.4.20. Public Concern: The Forest Service should implement the most aggressive and flexible fuels treatment strategy possible. The Forest Plan Amendment should direct managers to treat fuels before conducting widespread prescribed burn activities.

Response: All of the alternatives considered in detail in the SEIS propose a mix of tools that includes thinning, salvage harvesting, and underburning to reduce hazardous fuels. Each alternative emphasizes different degrees of active management to address needs for reducing the risks of large, severe wildland fires in the Sierra Nevada. Management emphases in the alternatives generally fall into one of three categories: (1) protection strategies, where large areas are designated as reserves in which natural processes shape desired conditions; (2) restoration strategies, where varying levels of human management are used to create and maintain desired conditions; and (3) resiliency strategies, where a high degree of human management is used to create and maintain ecosystems resilient to severe disturbances. The alternatives provide a range of strategies, each one incorporating elements of one or more of these approaches.

The FEIS describes a range of fuels treatment strategies that are used to varying degrees in all of the action alternatives (FEIS, Volume 1, Chapter 2, pages 11 through 14). This discussion is carried forward into the existing SNFPA ROD (pages A-11 through A-13). The intent is for local fire managers to evaluate each unique landscape and determine how strategically placed area treatments, wildland fire use, defensible fuels profile zones, and priority-setting mechanisms established through national fire management direction will work together best to achieve the desired landscape fire behavior (SNFPA ROD, page A-13). Both Alternatives S1 and S2 in the Draft SEIS retain this direction from the existing SNFPA ROD. The Final SEIS discusses effectiveness of fuels treatments on fire behavior, citing data from recent fires and research.

9.4.21. Public Concern: The Final SEIS should clarify the effectiveness of fuels strategies and treatments between Alternatives S1 and S2.

The FEIS discloses theories and assumptions about landscape fuel reduction strategies, including strategically placed area treatments. (See FEIS, Volume 2, Chapter 3, Part 3.5, pages 282 through 284.) This information is incorporated into the SEIS and is available to inform the Responsible Official. The Final SEIS discusses fuels treatment effectiveness relative to treatment types, acres treated, and location of treatments. The Final SEIS also includes an expanded discussion regarding uncertainties about fire behavior and treatment effectiveness.

9.4.22. Public Concern: The Final SEIS should address net long-term benefits due to reduced fuel loadings.

Response: The FEIS and SEIS describe benefits of the alternatives due to reduced fuel loadings in many places. Projected wildfire acres burned annually under each alternative are disclosed in the FEIS (Volume 2, Chapter 3, Part 3.5, pages 291 through 294) and SEIS (FSEIS, Chapter 4, Fire and Fuels). These projections are used in analyzing potential effects to wildlife habitats (FEIS, Volume 4 and FSEIS, Chapter 4, Species of the Sierra Nevada) as well as other resources. For example, potential effects on old forest ecosystems in terms of projected wildfire acres burned are discussed in the FEIS (Volume 2, Chapter 3, Part 3.2, pages 153 through 155) and the SEIS (FSEIS, Chapter 4, Effects of the Alternatives on Old Forests).

*9.4.23. **Public Concern:** The Forest Service should develop fire and fuels management strategies collaboratively with local entities as well as affected tribal organizations.*

Response: Development of the SEIS alternatives has followed direction and objectives of the National Fire Plan and *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10-Year Comprehensive Strategy* to develop fire and fuels management strategies collaboratively.

*9.4.24. **Public Concern:** Development of the Forest Plan Amendment fuels treatment strategy should include consideration of future changes in climate change. To disproportionately allocate fuels treatments to south and west aspects below 6,000 feet does not seem likely to provide long-term landscape-scale reductions in fire risk.*

Response: The SEIS provides flexibility to local managers to consider climate change during the development of fuels management treatments. Both Alternatives S1 and S2 propose a landscape fuels strategy aimed at modifying fire behavior across broad landscapes to reduce the size and severity of large wildfires. To accomplish this, managers are directed to strategically locate area fuels treatments.

Managers would determine the size, location, and orientation of SPLATs across a particular landscape in a pattern designed to effectively interrupt the spread of a potential wildfire. Managers would use information about fire history, existing vegetation and fuels condition, prevailing wind direction, topography, suppression resources, attack times, and accessibility to design an effective SPLAT pattern. The spatial pattern of the SPLATs would be intended to reduce rate of fire spread and fire intensity at the head of the fire. In designing the pattern of SPLATs across a landscape, managers would consider effects of areas that already contribute to modification of wildfire behavior, such as areas having altered vegetation patterns because of past management activities, burned areas, bodies of water, and barren areas. Managers would identify gaps in the landscape pattern where fire could spread at some undesired rate or direction. Treatments (including maintenance treatments and new fuels treatments) would be used to fill identified gaps.

Note that the description of Alternative S2 in the Final SEIS does not include direction under Alterative S1 to typically locate fuels treatments on upper two-thirds of slope, on south and west aspects in mid- and lower-montane vegetation types (FSEIS, Appendix A, Forest Wide, Fire).

Local units will be able to plan the appropriate location for fuels treatments to effectively interrupt potential wildland fire spread, based on both short-term and long-term climate conditions.

*9.4.25. **Public Concern:** The Forest Service should use USDA Forest Service Handbook 360 "Fire Weather" as the basis for fuels and timber management decisions.*

Response: USDA Forest Service Handbook 360 is incorporated into the Forest Service's fire behavior and fuels management training. The "Fire Weather" Handbook is used to predict fire weather. While the science it contains remains sound, it emphasizes understanding and predicting fire behavior, not prescribing fuel treatments or ecosystem conditions. The fire models used in the analysis of the FEIS and the SEIS incorporate the best science currently available.

*9.4.26. **Public Concern:** The Forest Plan Amendment should prioritize fuels treatments in Condition Classes 2 and 3.*

Response: The SEIS is consistent with the intent and objectives set forth by the National Fire Plan and *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10-Year Comprehensive Strategy*. Both the NFP and 10-Year Comprehensive Strategy emphasize the treatment of areas classified as Condition Classes 3 and 2 adjacent to communities at risk.

*9.4.27. **Public Concern:** The Forest Service should adopt Alternative F4's fire and fuels management strategy.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the environmental analysis or documentation.

*9.4.28. **Public Concern:** The Forest Service should consider the University of Oregon's published study on the Biscuit Fire and recent information from Cone Fire in developing management direction for fuels treatment, salvage, and restoration.*

Response: At the time of this writing, the Blacks Mountain (Cone Fire) results have not been adequately analyzed for citation. The SNFPA and SEIS proposed fuel treatments and strategies utilize the documented results of other recent research including consideration of findings from the Biscuit Fire.

*9.4.29. **Public Concern:** The Forest Service should construct fire buffer strips between private property and national forest lands.*

Response: Fuels treatments within WUI defense zones, DFPZs, and SPLATs provide for protection of private land, particularly adjacent to populated areas. Additionally, private land owners also need to be responsible by taking actions to protect their lands and structures from a wildland fire as well as reducing the potential of a wildland fire starting and spreading from their property.

*9.4.30. **Public Concern:** The Forest Plan Amendment should incorporate maintenance and restoration of riparian/aquatic zones into the fuels treatment strategy.*

Response: The Aquatic Management Strategy (AMS) in SEIS Alternatives S1 and S2 provides direction for maintaining and, where appropriate, restoring riparian areas as part of planning for fuels treatment projects. Both alternatives would retain existing SNFPA ROD direction for conducting site-specific analysis to ensure that proposed project activities are consistent with riparian conservation objectives and their associated standards and guidelines (SNFPA ROD, page A-8 and A- 53).

Funding

*9.4.31. **Public Concern:** The Final SEIS should analyze the adequacy of fuels treatment funding. The Final SEIS should include consideration of the costs of maintaining SPLATs and DFPZs.*

Response: The Final SEIS includes an analysis of fuels treatment funding in greater detail and provide additional data than was presented in the Draft SEIS. For any given fuels treatment budget, Alternative S2 should provide a greater opportunity for leveraging appropriated funds to reduce hazardous fuels on more acres. In comparing total revenues against total costs for Alternatives S1 and S2, the projections indicate that neither alternative generates enough revenue to fully cover the costs associated with planned fuels treatments.

*9.4.32. **Public Concern:** The Forest Plan Amendment should increase the pace of fuel reduction activities.*

Response: In the Decision for the Appeals of the Record of Decision for the Sierra Nevada Forest Plan Amendment and its Final Environmental Impact Statement (November 16, 2001), the Chief of the Forest Service directed the Pacific Southwest Region to identify opportunities for "more flexibility in aggressive fuel treatment while still providing short-term and long-term protection for wildlife and other resource values." To respond to the Chief's direction, the Regional Forester chartered the SNFPA Review Team to identify needed changes to the existing Record of Decision. The Review Team found that certain management standards and guidelines in the ROD compromised both the effectiveness of fuel treatments in modifying wildland fire behavior as well as their cost efficiency. The SEIS preferred alternative presents changes to specific elements of the existing SNFPA ROD (January 2001) based on the SNFPA Review Team's findings and recommendations.

The preferred alternative retains other elements of the existing SNFPA ROD, including focusing fuels treatments in wildland urban intermix zones (WUIs) and the rate at which treatments are conducted across the Sierra Nevada bioregion. As envisioned in the existing SNFPA ROD, fuels treatments under the preferred alternative are intended to be accomplished over a 20 to 25-year period (SNFPA ROD, page A-12). This rate of treatments is based on a balance between the need to reduce the buildup of excessive forest fuels with the need to conserve key habitats for at-risk species associated with old forest ecosystems.

*9.4.33. **Public Concern:** The Forest Plan Amendment should focus funding on reducing smaller sized class fuels.*

Response: Both Alternatives S1 and S2 emphasize the importance of treating surface and ladder fuels. "Fuels treatment prescriptions for SPLATs place first priority on reducing surface and ladder fuels. Crown fuels are modified to the extent necessary to reduce the potential for crown fire spread" (FSEIS, Chapter 2, Approach to Modifying Wildland Fire Behavior across Broad Landscapes).

The focus of activities under the SEIS preferred alternative is removal of excessive numbers of small trees, not large trees. It is the smaller trees that are making Sierra Nevada forests overly dense and prone to destructive wildfire or susceptible to insects and disease. Projected treatments aimed at modifying fire behavior to reduce the size and severity of wildfires would cover an estimated 20 to 25 percent of areas at low and mid-elevations where fire hazard and risk are highest.

Modeling

*9.4.34. **Public Concern:** The Final SEIS should provide accurate fire modeling data to compare the fire effects of the alternatives.*

Response: The statement in the Draft SEIS that habitat losses are projected at 68,000 acres per year over the next decade is incorrect. This has been corrected in the Final SEIS. The long-term projections of wildfire acres are not displayed as predictions, but as projected trajectories to compare the alternatives. The relativity of the lines to each other suggests a difference in outcomes between the alternatives. The graphs display assumptions in treatment effects for the early period (0 to 20 years); the graphed lines between 21 to 50 years check the trends of the first 20 years. Projections beyond 50 years are used to assess whether the assumptions are stable. This has been clarified in the Final SEIS in the Modeling Appendix (B).

9.4.35. Public Concern: *The Draft SEIS analysis of future loss of owl nest stands to wildfires is inadequate and lacks specificity. The Final SEIS should include an analysis that differentiates between nest-stand core and non-core PAC acres burned, and the percentage of those acres subject to total stand replacement.*

Response: California spotted owls need nesting, roosting, and foraging areas to have a viable PAC, so both the nest-stand core and non-core are equally important in the PAC. The GIS information used to identify numbers of spotted owl PACs burned in wildfires is meant to assess trends in PAC acreages burned in wildfires. The Final SEIS more fully describes current knowledge regarding habitat suitability data after wildfires in Chapter 3, "Fire Effects on PACs."

Wildland Fire Effects

9.4.36. Public Concern: *The Final SEIS should justify assumption that fire will cause disastrous effects to wildlife and vegetation. The Final SEIS should justify wildland fire severity projections.*

Response: The Final SEIS (in Chapter 3 Affected Environment for Fire and Fuels Management will discuss current and historical conditions, combined with the effects of forest management practices and warmer moister climactic conditions, which have increased the potential for high severity fires. Various sources will be cited in this section. The Final SEIS also discusses the severity of fires and effects on vegetation, and sources are cited.

9.4.37. Public Concern: *The Draft SEIS preferred alternative could actually increase the risk of catastrophic fire by logging large fire resistant trees and leaving the flammable slash and smaller fuels behind.*

Response: Both Alternatives S1 and S2 emphasize the importance of treating surface and ladder fuels. "Fuels treatment prescriptions for SPLATs place first priority on reducing surface and ladder fuels. Crown fuels are modified to the extent necessary to reduce the potential for crown fire spread" (FSEIS, Chapter 2, Approach to Modifying Wildland Fire Behavior across Broad Landscapes). Standards and guidelines for mechanical thinning treatments in mature forest stands outside WUI defense zones are designed to ensure that large trees are retained (FSEIS, Chapter 2, Alternative S2, Fuels and Vegetation Management Standards and Guidelines).

The focus of activities under the SEIS preferred alternative is removal of excessive numbers of small trees, not large trees. It is the smaller trees that are making Sierra Nevada forests overly dense and prone to destructive wildfire or susceptible to insects and disease. Projected treatments aimed at modifying fire behavior to reduce the size and severity of wildfires would cover an estimated 20 to 25 percent of areas at low and mid-elevations where fire hazard and risk are highest.

9.4.38. Public Concern: *The Forest Plan Amendment should ensure that post-fire restoration treatments are conducted following large wildland fires.*

Response: The SEIS preferred alternative (S2) provides specific direction to land managers for conducting ecosystem restoration following catastrophic disturbance events, including large wildland fires (FSEIS, Chapter 2, Alternative S2, Ecosystem Restoration Following Catastrophic Events, and Appendix A). The FEIS and the Final SEIS are programmatic documents and therefore do not propose specific post-fire restoration actions. Local managers would propose site-specific post-fire restoration projects consistent with management direction provided in the SNFPA. Project level environmental

planning and analysis would involve the public and disclose the direct, indirect, and cumulative impacts of proposed activities.

*9.4.39. **Public Concern:** The Final SEIS should analyze fire suppression activities on ecosystems and on recreation.*

Response: The SEIS alternatives provide direction relative to fire suppression activities only to the extent needed to address concerns related to the five problem areas. Fire suppression activities in Alternatives S1 and S2 are addressed via a standard and guideline that directs managers to consider impacts to aquatic- and riparian-dependent resources during fire suppression activities (FSEIS, Appendix A, Aquatic/Riparian).

The SEIS analysis of effects compares the effects of proposed changes under Alternatives S2 with existing management direction under Alternative S1. The effects of these proposed changes on various Sierra Nevada ecosystems are described in Chapter 4 Section 4.2 “Physical and Biological Environment.” Effects to recreation are discussed in the Final SEIS in chapter 4, Recreation.

*9.4.40. **Public Concern:** The Final SEIS should consider aggressive fuel reduction impacts on biodiversity.*

Response: The SEIS preferred alternative (S2) retains SNFPA goals for old forest ecosystems, which include: (1) protecting, increasing, and perpetuating desired conditions of old forest ecosystems and conserving their associated species while meeting people's needs for commodities and outdoor recreation activities; (2) increasing the density of large trees, the structural diversity of vegetation, and improving the continuity and distribution of old forests across the landscape; and (3) reversing the declining trends in abundance of old forest ecosystems and habitats for species that use old forests (FSIES, Chapter 1, Purpose and Need for Action). All of the SNFPA alternatives provide ways to maintain or improve habitats for a wide variety of wildlife species, particularly threatened, endangered, and sensitive species.

The focus of activities under the preferred alternative is the removal of excessive numbers of small trees, not large trees. It is the smaller trees that are making Sierra Nevada forests overly dense and prone to destructive wildfire or susceptible to insects and disease. Projected treatments aimed at modifying fire behavior to reduce the size and severity of wildfires would cover an estimated 20 to 25 percent of areas at low and mid-elevations where fire danger is highest.

The preferred alternative retains a number of elements from the existing SNFPA ROD, including the rate at which treatments are conducted across the Sierra Nevada bioregion. As envisioned in the existing SNFPA ROD, fuels treatments under the preferred alternative are intended to be accomplished over a 20 to 25-year period (SNFPA ROD, page A-12). This rate of treatments is based on a balance between the need to reduce the buildup of excessive forest fuels with the need to conserve key habitats for at-risk species associated with old forest ecosystems.

*9.4.41. **Public Concern:** The Forest Plan Amendment should include provisions for minimizing smoke impacts to communities.*

Response: The Forest Service is committed to work with the California Air Resource Board and local Air Districts so that programs are designed to ensure compliance with air quality requirements. Forest Service units are required to obtain burning permits under Memorandum of Understanding with the California Air Resources Board prior to conducting burning activities. Local air quality boards work with Forest Service personnel to identify days when burning will meet air quality regulations and avoid smoke impacts to nearby communities.

*9.4.42. **Public Concern:** The Final SEIS should investigate how pollutants may be involved in increased fire hazards on national forest lands.*

Response: This is outside the scope of the SEIS analysis, which focuses on analyzing impacts related to proposed changes to existing SNFPA ROD management direction.

Standards and Guidelines

*9.4.43. **Public Concern:** The Forest Service should evaluate the effectiveness of existing SNFPA ROD standards and guidelines for a minimum of 5 years before proposing changes to the existing SNFPA ROD.*

Response: The Forest Service is adjusting existing management direction to better achieve the goals of SNFPA.

In December, 2001, the Regional Forester chartered a review team (SNFPA Review) to evaluate the SNFPA ROD and recommend any needed changes in management direction. The SNFPA goals for old forest conservation; protection and restoration of aquatic, riparian and meadow ecosystems and viability of associated species; and addressing the risk of catastrophic fire (FEIS, volume 1, chapter 1, pages 5-6) are still valid. However, the SNFPA Review, new information that has become available since release of the SNFPA ROD (January, 2001) and insight gained from nearly three years of implementing SNFPA, highlighted the need for refinements in management direction relative to three of the five problem areas addressed in the SNFPA: (1) old forest ecosystems and associated species; (2) aquatic, riparian, and meadow ecosystems and associated species; and (3) fire and fuels management. It also highlighted the need to refine management direction to implement the legislatively-mandated Herger-Feinstein Quincy Library Group Forest Recovery Act to the fullest extent that is compatible with other legal mandates.

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, the FEIS projected habitat losses at 68,000 acres per year over the next decade. At that rate, old forest habitat is burning up faster than it can be replaced. There is a need to reduce expected habitat losses to a rate that is at or below 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.

New information has become available concerning species dependent on old forest ecosystems including recent analysis of California spotted owl populations in four study areas within the Sierra Nevada to better inform judgments about the current population status and risks of actions to reduce hazardous fuels. Owl reproductive data for the spring 2002 breeding period shows a pulse in reproduction that was not considered in the FEIS. In February 2003, after considering the best available information, including the role of private lands for providing habitat and the provisions of the SNFPA, FWS announced that listing of the California spotted owl as an endangered species was not warranted.

New information is also available 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.

The SNFPA Review Team identified a need to more fully consider three critical aspects of the fire and fuels management strategy established in SNFPA to better meet the goals of the National Fire Plan. Selected standards and guidelines have been 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 acres to be treated 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. 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 now utilize 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' emphasis on prescribed burning for initial treatments is reduced because of public concerns about smoke and because of the limited number of permissible burn days under state air quality management rules.

*9.4.44. **Public Concern:** The Forest Plan Amendment should include mitigation measures for mechanical treatments in PACs and mature forest stands.*

Response: Both Alternatives S1 and S2 would prohibit mechanical treatments in the immediate vicinity of California spotted owl activity centers. Standards and guidelines for nest sites in the Final SEIS clarifies that mechanical treatments would be prohibited within a 500-foot radius around California spotted owl and northern goshawk activity centers. Although Alternative S2 would allow mechanical treatments in PACs when avoiding these areas was not possible, the management intent for such treatments would be to reduce hazardous fuels (FSEIS, Chapter 2, Table Fa).

Both Alternatives S1 and S2 have numerous standards and guidelines designed to mitigate effects from mechanical treatments on mature forest stands. (FSEIS, Chapter 2, Alternative S1 and Alternative S2).

*9.4.45. **Public Concern:** The Final SEIS should provide evidence that hazard trees are a threat to public safety and need to be removed.*

Response: The need to remove hazard trees is outside the scope of this SEIS. Hazard tree removal is limited: it is generally conducted along roads and in heavily used recreation sites where public safety is the highest concern. The SEIS alternatives mention hazard tree removal to provide assurance that public safety concerns can be addressed.

*9.4.46. **Public Concern:** The Forest Plan Amendment should include provisions for reducing snag densities to reduce fire risk.*

Response: The SEIS preferred alternative (S2) would provide direction for determining snag retention levels on an individual project basis for vegetation treatments. When determining snag retention levels, managers would consider land allocation, desired condition, landscape position, and site conditions (FSEIS, Appendix A, Forest Wide, Snags, Down Wood, Post-fire Restoration, Salvage).

*9.4.47. **Public Concern:** The Forest Plan Amendment should maintain the existing SNFPA ROD's salvage restrictions in old forest emphasis areas and California spotted owl home range core areas (HRCAs).*

Response: Within both Old Forest Emphasis Areas and Home Range Core Areas, S2 project planners are guided, primarily, by the Desired Future Conditions. Planning for site-specific salvage projects will be further guided by the Forestwide Standards and Guidelines, which allow salvage, as consistent with overall project objectives.

*9.4.48. **Public Concern:** It appears that concern for the extent of wildfire damage in the Sierra Nevada is exaggerated. This should not be used to justify reducing mean canopy cover levels to only 40 percent. To do so would markedly reduce the suitability of California spotted owl habitat, with much uncertainty about the overall effects on the owl population.*

Response: The SEIS preferred alternative (S2) would allow mechanical thinning treatments to reduce canopy cover to 40 percent if needed to meet treatment objectives or to allow equipment operation. While this end-result would be permitted, it is constrained by another standard and guideline that limits the change in absolute canopy cover to 30 percent. Potential effects on canopy cover as it relates to habitat for California spotted owls and potential effects on California spotted owl populations are described in the SEIS (FSEIS, Chapter 4, Species of the Sierra Nevada).

*9.4.49. **Public Concern:** Opening up the forest canopy in SPLATs would encourage the establishment of a substantial ground cover of grasses, forbs, and small shrubs; the Draft SEIS makes no mention of this aspect of SPLAT ecology in the vegetation modeling.*

Response: The Final SEIS discusses uncertainty regarding the ability of area treatments located in a manner to interrupt potential wildland fire spread to provide a reduced rate of spread in areas where the treated stands result in grasses or other generally high rate of spread vegetation types. This concern was discussed in Mark Finney's research paper (Appendix G of the FEIS). Finney observed that, even where the maintenance has not provided for the desired rate of spread reduction, fire behavior is generally modified enough that suppression capability is enhanced, overall intensity is reduced, and mortality is reduced in treated areas.

*9.4.50. **Public Concern:** The Final SEIS should disclose potential impacts from increased canopy removal of larger trees, increased salvage logging, and "forest health" treatments on aquatic and riparian ecosystems.*

Response: While Alternative S2 does not include S1's 12 and 20 inch limits, the tree sizes available for removal are not the largest trees; they are the smallest trees. The largest trees are retained, while the smallest trees are available for removal, to meet fuel reduction and, as applicable, stand density reduction objectives. S2 retains the same 30 inch limitation. This means that changes in canopy cover are primarily occurring in the lower canopy layers.

The removal of dead or dying trees would be allowed; however, needs for snags and down trees will be met through implementation of forest-wide standards and guidelines for retaining these key habitat elements.

Accomplishment of forest health objectives would include a wide range of treatments, ranging from mistletoe reduction in campgrounds to tree thinning in dense young stands. It is expected that the acres treated for forest health objectives will largely overlap area fuel treatments.

The Aquatic Management Strategy would apply to both Alternatives S1 and S2; therefore, similar effects to aquatic, riparian, and meadow ecosystems are expected under both alternatives. Mechanical treatments and salvage of dead or dying trees would be conducted in accordance with riparian conservation objectives (FSEIS, Appendix A, Aquatic/riparian). The attainment of Riparian Conservation Objectives is expected to prevent potential adverse impacts of canopy cover changes.

*9.4.51. **Public Concern:** The Forest Service should prohibit canopy cover reduction by more than 20 percent in dominant and codominant trees.*

Response: Standards and guidelines for mechanical treatments in mature forest stands under the preferred alternative would be unlikely to commonly result in a reduction of 20 percent canopy in dominant and co-dominant trees. Standards and guidelines for mechanical thinning treatments under Alternative S2 would retain the largest trees, which are the dominant and codominant trees; hence, changes to this canopy class would be limited.

*9.4.52. **Public Concern:** The DEIS does not explain why acres outside the "off-base" land allocation in the HFQLG area would require a high density and closed canopy retention in mature forest habitat [Table Ga.].*

Response: The standards and guidelines for mechanical thinning treatments in mature forest habitat outside defense zones in Table Ga (FSEIS, Chapter 2) would not apply to the HFQLG Pilot Project Area through the life of the Pilot Project.

*9.4.53. **Public Concern:** The DSEIS analysis mischaracterizes the existing SNFPA ROD (Alternative S1) by assuming that stands with 40 to 60 percent canopy closure are allowed biomass treatments with removal limited to trees less than 6 inches. This single assumption eliminates the commercial component of treatments over large areas of the forest, yet is based on an assumption that line officers cannot distinguish differences in canopy closure within the 40 to 60 percent class. This assumption elevates a transient technical difficulty involving quantification of canopy closure to the level of a fundamental determinant of USFS management over millions of acres.*

Response: During the SNFPA Review, existing ROD standards and guidelines for fuels treatments were examined, using the Middle Fork Cosumnes Landscape on the Eldorado National Forest as an example. (Refer to *Sierra Nevada Forest Plan Amendment Management Review and Recommendations*, March 2003, pages 21 through 33.) For stands outside PACs and defense zones with canopy closure between 40 and 50 percent, existing SNFPA ROD standards and guidelines allow only one option for mechanical treatments: thinning to remove trees less than 6 inches dbh (SNFPA ROD, pages A-26, A-41, A-44, A-48, and A-49). Hence, for the Middle Fork Cosumnes analysis, the only treatment options for these types of stands were either (1) prescribed burning (which has no canopy retention requirements) or (2) thinning trees up to 6 inches dbh. In the Middle Fork Cosumnes analysis, stands with canopy closure between 50 and 60 percent were also given these same treatment options (prescribed burning or thinning to a 6-inch dbh) based on two assumptions: (1) for purposes of applying the standards and guidelines, canopy closure could not be detected any finer than by 10 percent canopy classes (with a conference interval of plus or minus one class) and (2) an average fuel treatment would remove about 8 percent canopy cover. Given the cautious nature of the existing SNFPA ROD regarding mechanical treatments and its intent to ensure that mechanical treatments maintain existing suitable habitat for the California spotted owl, stands with 40 to 60 percent canopy cover were assigned to a 6-inch mechanical thinning or prescribed fire treatment. This approach was only used to apply standards and guidelines and model effects in the Middle Fork Cosumnes Landscape.

The difficulty associated with quantifying canopy closure is not in making an estimate of total stand canopy closure, but in determining the contribution of individual trees to the total canopy closure. If one is allowed to remove trees to a fixed standard of 50 percent, one must know when this threshold has been met. If the canopy is re-measured after all the trees have been removed, it is too late to make corrections. Crown canopy measurement tools are designed to measure total canopy, not individual trees. This is a problem and one of the reasons that direction under Alternative S2 states that managers are to ***design projects to*** meet the canopy closure standards since there is no way of absolutely assuring that a 50 percent standard has been met, given the high variability in measurement techniques and difficultly of a purporting the total canopy closure to individual trees.

In the FEIS and SEIS analyses, stands with between 50 and 60 percent canopy cover are assigned treatment prescriptions that allow trees up to 12 inches dbh or, under certain circumstances, up to 20 inches dbh to be removed until the applicable canopy retention standard is reached, even if the merchantable volume is nominal. In the SEIS analysis, lower timber volume removals are permitted and considered in the economics; however, the valuation model varies value per thousand board feet (MBF) by volume per acre. This means that stands with low volume per acre have lower value per MBF than stands with high volume per acre. Hence, stands with higher timber volumes not only have more volume, they also have higher value per unit. This method was applied to the analysis of both Alternatives S1 and S2 in the SEIS.

9.4.54. Public Concern: *In spite of the issue made about measuring canopy cover under Alternative S1, the DSEIS proposes an alternative that requires the measurement of canopy cover in precisely the same way. Alternative S2 requires that projects "retain a minimum of 40 percent canopy cover within the treatment unit" (DSEIS, p. 53). If the same logic is applied to modeling Alternative S2 as was done for S1, then CWHR types 4m and 5m whose canopy is from 40-49 percent canopy cover can only be harvested with a prescription that limits removal of material to trees with diameters of 6 inches and less. However, the DSEIS does not apply this limitation to the modeling to Alternative S2. This differential treatment of Alternatives S1 and S2 is essentially arbitrary and skews the analysis in favor of Alternative S2.*

Response: See Response to Public Concern 9.4.53.

A key difference between Alternatives S1 and S2 applies to mechanical treatments in stands at the 50 percent canopy cover cusp: Alternative S2 would allow managers to use mechanical means to conduct fuel treatments to effectively reduce ladder and surface fuels even if it brought the stand below the 50 percent canopy cover standard. There is no such allowance under Alternative S1.

The SEIS analysis, unlike the initial analysis on the Middle Fork Cosumnes Landscape (*Sierra Nevada Forest Plan Amendment Management Review and Recommendations*, March 2003, pages 21 through 33), allows both Alternatives S1 and S2 to generate nominal yields when treating stands near the 50 percent canopy cover cusp, and both alternatives assign value to generated timber volumes using the same methodology. However, while Alternative S2 standards and guidelines allow the assumption that an adequate but minimum fuels treatment may proceed in all cases, this is not an assumption that can be made under Alternative S1. Hence, the bias described in this public concern was corrected in the Final SEIS analysis.

9.4.55. Public Concern: *The Forest Plan Amendment should identify areas for habitat connectivity and should preserve areas of moderate to dense canopy cover in eastside forest types.*

Response: Implementation of the area treatment strategy under Alternative S2 would likely provide for extensive habitat connectivity, as modeled outcomes indicate that approximately 75 percent of large landscapes would not be treated. Likewise, moderate to dense canopy cover would be retained over large areas, and would be expected to develop in other areas.

There are no absolutely correct characterizations of the pre-settlement forest. Despite that, reasoned assumptions, that take fire frequency and vegetative impacts into account, seem to support lower stand densities over much of the Sierra Nevada. Local project design will provide for site-specific consideration of multiple resources, including diversity of wildlife and plant species.

9.4.56. Public Concern: *The elimination of SNFPA ROD requirements to retain all trees greater than 30 inches dbh and at least 50 percent canopy closure over 60 percent of each watershed is appropriate only (1) when applied to forest habitats that were historically more open than is this threshold and (2) if the new threshold can be applied without impacts (habitat loss or degradation included) on sensitive wildlife.*

Response: The SEIS preferred alternative (S2) has the following forest-wide standard and guidelines (FSEIS, Appendix A, Forest Wide, Vegetation Management): "When implementing mechanical thinning treatments, design projects to retain all live conifers 30 inches dbh or larger. Retain hardwoods 12 inches or greater within westside forest types." The preferred alternative also has a standard and guideline for retaining 50 percent canopy closure, with certain allowances for reducing canopy cover to 40 percent.

9.4.57. Public Concern: *The Draft SEIS is unclear as to the scale at which many of Alternative S2's standards are to be measured. The Final SEIS should clarify whether canopy closure and basal area to be measured on a per-acre or per-treatment-unit basis.*

Response: Alternative S2's standards and guidelines for mechanical fuels treatments are measured at the treatment unit scale (FSEIS, Appendix A, Forest Wide, Vegetation Management). However, rules for defining treatment units, measuring canopy cover, and identifying tree sizes to be counted toward the basal area and canopy retention standards would be clarified through implementation of Alternative S2.

9.4.58. Public Concern: *The Final SEIS should include an analysis of impacts to sensitive species as a result of Alternative S2's more aggressive reductions in canopy cover compared to Alternative S1. Reduced canopy cover creates an opportunity for re-growth of ground fuels, which will increase fire danger in the long term.*

Response: Alternative S2 does allow for greater reductions in canopy cover compared to Alternative S1, and expected impacts to wildlife species are described in the SEIS (FSEIS, Chapter 4, Species of the Sierra Nevada). The design of standards and guidelines for vegetation and fuels management activities under Alternative S2 are largely based on minimizing adverse impacts to wildlife species. There are indications that present-day stand densities were not as common in the pre-settlement forest as they are today (FSEIS, Chapter 3, Forest Ecosystem Health, Background). Providing habitats that resemble these earlier conditions is assumed to provide for suitable modern-day animal populations. Regardless of the fuel reduction treatment strategy, surface fuel treatments are an integral part of all the treatment strategies being considered and are expected to decrease, rather than increase, fire-related adverse impacts.

9.4.59. Public Concern: *Thinning under Alternative S2 does not propose merely to remove dense, small trees. It would also remove large trees, creating SPLATs, and DFPZ operations that remove trees up to 30 inches dbh in some parts of the forests. Producing larger trees is not the same as producing optimum old forest conditions. In addition, there is reason to believe that density reduction (at least in some circumstances) will increase drought effects because of increased vulnerability to the drying effects of sunlight and wind compared to the generally cooler and more moist microclimates produced by the closed canopies of the denser stands.*

Response: : S2's standards and guidelines, for mechanical thinning treatments in mature forest stands, direct managers to design projects to retain, at least, 40 percent of the existing basal area in the largest trees. This standard and guideline, combined with canopy cover standards and guidelines, would allow for the removal of the smaller trees in treatment areas, not the largest. The largest trees in each treatment unit would be retained. The creation of a strategically-placed area treatment network will be guided by the Desired Future Conditions for the applicable land allocation. Also, S2 permits managers to include multiple objectives in project development. When appropriate, intertree competition will be included, An appropriate upper diameter will be determined on a site-specific basis, but will, in all cases, retain the largest trees and be limited to 30 inches.

The SEIS describes the linkages between density and insect/drought-related mortality. The "natural" density reduction process was largely accomplished by wildfire, as most germinating seedlings were killed as fire moved throughout the landscape. Additional changes were made by bark beetles and pathogens. On many of the acres within the planning area, bark beetles appear to be the density-regulating force, rather than inter-tree competition. Desired future conditions for the old forest emphasis area and general forest land allocations have been clarified in the Final SEIS to recognize the heterogeneity of the pre-settlement forest and illustrate high levels of variation in tree size, density, and layers over large areas.

Soil moisture is the primary limiting variable in Sierra Nevada forests and reductions in tree density increase drought resistance and allow for increased diameter growth with increased bark thickness, providing for greater chances of wildfire survival, especially when surface fuel reduction treatments are applied.

9.4.60. Public Concern: *The Forest Plan Amendment should allow salvage cuts in old forest emphasis areas that are less than 10 acres in size.*

Response: It is likely that this site-specific condition will be addressed in a local analysis document. Scoping will provide you with an opportunity to illustrate the potential problem and to identify a possible treatment strategy. The placement of a treatment area, within which fuel and stand density objectives can be jointly addressed, may meet your objectives. It would be expected that density reduction treatment will minimize the risk of hazardous fuel level accumulation.

9.4.61. Public Concern: *The Forest Plan Amendment should allow the removal of partially damaged trees to decrease fire danger.*

Response: Management direction under Alternative S2 allows local managers to use the best available information to guide the removal of dead and dying trees in support of fuels and vegetation management objectives.

9.4.62. Public Concern: *The Forest Plan Amendment should define "salvage" based upon the Society of American Foresters terminology.*

Response: The use of the term "salvage" in the FSEIS is consistent with the SAF terminology.

9.4.63. Public Concern: *The Forest Plan Amendment should establish criteria for determining whether a tree is dead.*

Response: S2 provides for the determination of dead/dying by considering the best available information provided by the Forest Health Protection staff. The current guidelines incorporate a pre-bud break and post-bud break criteria depending on the time of year determinations need to be made.

9.4.64. Public Concern: *There has been significant concern over what constitutes trees likely to die. The current wording in the standard and guideline on page 270 of the Draft SEIS is: "Use the best available information on determining tree mortality for the purpose of salvage as developed by the Pacific Southwest Region Forest Health Protection Staff." The Final SEIS standard and guideline should include literature citations that played a major role in developing the current "best available information."*

Response: The current guidelines, developed by the Forest Health Protection (FHP) staff, are based on the best available science for California. They will continue to be modified as determined by the results of FHP's ongoing fire-damaged tree mortality studies. FHP has the largest data set in California and throughout the West in terms of number of trees and fire injury evaluation criteria. The current marking guidelines provide the best available estimate of mortality and have been developed with full consideration of available literature, ongoing studies, and the professional judgment of people with many years of experience. Estimating mortality is a professional endeavor that is not easy. Such estimates are not arbitrary, but rather are based on the best available science, which is evolving. Original guidelines recommended by Wagener (1961) have been used for decades in California. Refinements have been made and are incorporated into the current guidelines.

Clarification Needs

9.4.65. Public Concern: *The Final SEIS should clarify apparently conflicting statements relative to wildfire projections for Alternatives F2 through F8 on pages 10 and 11 of the Summary in the Draft SEIS.*

Response: These conflicting statements have been corrected in the Final SEIS. Refer to the FEIS, Volume 2, Chapter 3, Part 3.4 page 228, "Effects Related to Wildfire Risk" for expected wildfire impacts relative to aquatic, riparian, and meadow ecosystems.

9.4.66. Public Concern: *The Final SEIS should clarify information regarding acres of fuels reduction treatments by methods, years, and alternatives.*

Response: The Final SEIS clarifies differences in acreages treated between Alternatives S1 and S2, including treatments in the HFQLG Pilot Project area. Table 4.2.4b in the DSEIS (page 164) has been modified in the Final SEIS to display acres planned for treatment by alternative. The Table compares Alternative S1 (with treatment acres based on total area within the treatment unit boundary), Alternative S1 (with untreated acres, based on standards and guidelines in the SNFPA ROD to retain a certain percentage of each treated stand in an untreated condition, removed from the area within the treatment unit boundary), and Alternative S2. Treatment acreages for each alternative have been displayed as initial treatments only, follow-up treatments, and total treatments.

*9.4.67. **Public Concern:** The Final SEIS should clarify terminology, particularly the terms "desired conditions" and "initial fuels treatments."*

Response: The Final SEIS has a revised Glossary. Desired conditions are described on pages 48 through 51 of the DSEIS. Desired conditions have been updated in Chapter 2 of the Final SEIS.

*9.4.68. **Public Concern:** The Forest Service should study impact of wildfires on spotted owl habitat. Simply being "influenced by fire" does not render a PAC unsuitable or lost to spotted owls.*

Response: Site-specific data has been added to the Final SEIS in Chapter 3 under "Fire Effects on PACs" to explain the overlap of PACs and fires from 1993 to 2002. This shows the annual rate of PACs burned over time. Another table has been added to display PACs significantly diminished by wildfire during a recent several-year period.

*9.4.69. **Public Concern:** The Final SEIS should report the number of acres treated.*

Response: The number of acres treated by mechanical means and prescribed burning is displayed in Table 4.2.4b "Treatment acres by allocation and type" (FSEIS, Chapter 4, Fire and Fuels). This table has been updated and modified in the Final SEIS.

Forest Health, Timber Harvesting

*9.4.70. **Public Concern:** The Forest Plan Amendment should allow other objectives to be included in fire risk reduction proposals. The Forest Plan Amendment should provide for an increased amount of forest health treatment acres.*

Response: Standards and guidelines in the SEIS preferred alternative (S2) allow for managers to "incorporate objectives for forest health and re-introducing fire, where appropriate" in most land allocations (FSEIS, Chapter 2, Table Fa). The theme and overall management approach of Alternative S2 is to "use a more active management approach…….. to make forests less susceptible to the effects of uncharacteristically severe wildland fires as well *as invasive pests and diseases*" (FSEIS, Chapter 2, Alternative S2, Theme and Overall Management Approach).

*9.4.71. **Public Concern:** The Forest Plan Amendment should not limit thinning to the wildland urban intermix. Thinning should be encouraged throughout the entire forest.*

Response: It is not the intent of the SEIS to imply that "thinning" should *only* be conducted in the wildland urban intermix (WUI). Under the preferred alternative (Alternative S2), fuels reduction projects are expected to occur throughout the forest, with priority given to treatments in the WUI because of threats to life, property, and financial resources. In addition, Alternative S2 provides a mechanism that allows "fuels and forest health treatments to generate revenues through commercial forest products to increase the number of acres that can be treated with the available appropriated funds."

*9.4.72. **Public Concern:** The Forest Service should allow logging only to reduce wildfire dangers.*

Response: Under the Multiple-Use Sustained-Yield Act of 1960, it is the policy of Congress that the national forests are established and administered for timber production as well as recreation, range, watershed, wildlife and fish purposes in a sustainable manner. Under the National Forest Management Act, forest plans are required to determine areas capable and suitable for timber production along with

consideration of other resource needs. Harvest of small and medium sized trees (less than 30 inches diameter), paired with treatment of surface fuels, is one effective method to reduce wildfire danger. However, logging is also an effective tool for sustainable management of other goods and services from national forests. Logging can be effectively used to promote forest health through thinning excess stems to reduce competition and stress on residual trees, improving resistance to insects and disease. Logging can also be used to accelerate growth of residual trees by reducing competition and making more water, nutrients and sunlight available to the remaining trees. Logging is also an effective tool for improving public safety by removing hazard trees along roads and around recreation and administrative sites. In other parts of the country, logging is routinely used to improve water yields from forested watersheds or to create or improve specific kinds of wildlife habitat.

*9.4.73. **Public Concern:** The Forest Service should not use the need to reduce the threat of wildfires in the Sierra Nevada to justify increased logging.*

Response: The SNFPA provides a coordinated strategy for addressing the risk of large, severe wildland fires in the Sierra Nevada due to decades of fire exclusion and the resulting accumulations of hazardous fuels. Goals for fire and fuels management include reducing the wildfire threat to communities, ecosystems, and natural resources; maintaining ecosystem functions (which include fire as a natural process), and decreasing fire suppression costs (FSEIS, Chapter 1, Purpose and Need for Action, Fire and Fuels). The SNFPA also has goals for old forest ecosystems which include: (1) protecting, increasing, and perpetuating desired conditions of old forest ecosystems and conserving their associated species while meeting people's needs for commodities and outdoor recreation activities; (2) increasing the density of large trees, the structural diversity of vegetation, and improving the continuity and distribution of old forests across the landscape; and (3) reversing the declining trends in abundance of old forest ecosystems and habitats for species that use old forests (FSEIS, Chapter 1, Purpose and Need).

The focus of activities under the preferred alternative is the removal of excessive numbers of small trees, not large trees. It is the smaller trees that are making Sierra Nevada forests overly dense and prone to destructive wildfire or susceptible to insects and disease. Projected treatments (over a 20 year period) aimed at modifying fire behavior to reduce the size and severity of wildfires would cover an estimated 20 to 25 percent of areas at low and mid-elevations where fire danger is highest.

While commercial logging can increase the amount and flammability of fuels, proper slash disposal and stand treatment following harvests can prevent this from occurring. In all alternatives where timber harvesting occurs, the emphasis is moved from providing a commercial product to modification of fuels.

*9.4.74. **Public Concern:** The Forest Service should ensure that commercial timber sales are not disguised as salvage logging.*

Response: Standards and guidelines dealing with ecosystem restoration projects following large catastrophic fires provide specific direction and management objectives to retain ecosystem values and functions, including (1) “do not conduct salvage harvest in at least 10 percent of the total area affected by the fire;” (2) ”unsalvaged acreage should be comprised of vegetation classified as CWHR size class 5 or 6 prior to the burn;” (3) “the intent is to leave some areas of high density large snags to meet the needs of post-fire opportunistic species” and others (FSEIS, Appendix A, Forest Wide, Snags, Down Wood, Post-Fire Restoration, Salvage). The standards and guidelines dealing with ecosystem restoration projects for large, catastrophic fires specifically apply to “contiguous blocks of moderate to high severity of 1,000 acres or more.” The appropriateness of salvage logging, for whatever reason, would be determined locally, based on site-specific environmental analysis following these standards and guidelines.

*9.4.75. **Public Concern:** The Forest Service should enforce the requirement that national forests develop a comprehensive Fire and Fuels Management Plan.*

Response: The enforcement of existing direction for developing Fire Management Plans is outside the scope of this SEIS.

*9.4.76. **Public Concern:** The Forest Plan Amendment should establish fire plans that limit forest use during high fire danger.*

Response: Determination of actions during high fire danger is locally determined and outside the scope of this SEIS.

*9.4.77. **Public Concern:** The Forest Service should develop a local fire-fighting force.*

Response: The Forest Service has developed a highly trained, well organized fire fighting capability in coordination with numerous agencies.

*9.4.78. **Public Concern:** The Forest Service should adopt the fire and fuel management strategy proposed by FSEEE.*

Response: Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feelings and beliefs about a proposed course of action. Such information can only be used by the decision maker in arriving at a decision and not for improving the analysis or documentation.

*9.4.79. **Public Concern:** The Final SEIS should provide estimates of the numbers of SPLATs that would be implemented each year and their actual mean size to facilitate analysis of California spotted owl impacts.*

Response: Appendix B of the SEIS describes the SPLAT pattern that was approximated across Sierra Nevada landscapes for Alternatives S1 and S2 to project changes in vegetation and habitat over time. The SPLAT pattern modeled for these alternatives resembles a herringbone or tread pattern, which more closely aligns with the pattern described by Mark Finney (Appendix G of the FEIS). The modeling appendix in the Final SEIS has clarified that each modeled SPLAT is 150 acres. Modeling indicates that we can create an effective SPLAT pattern by treating approximately 25 percent of landscapes.

The modeling for the SNFPA provides a relative comparison of bioregional-scale effects of the alternatives on vegetation and habitat over time. It also provides information to the decision maker and public regarding potential spatial effects, for example numbers of PACs potentially treated, acres in home range core areas potentially treated, and so forth. However, the SEIS presents a programmatic level analysis. Site-specific effects will be analyzed and mitigation measures will be developed when actual projects are planned and designed on the ground. Biological evaluations will also be developed at the site-specific project scale.

*9.4.80. **Public Concern:** National Park Service prescribed burns should be given priority over Forest Service prescribed burns.*

Response: Priority setting of burns between multiple agencies is outside the scope of this SEIS. Local managers, in cooperation with Air Districts, are responsible for prioritization of prescribed burns.

9.4.81. Public Concern: The Forest Service should use non-toxic herbicides to treat forestlands.

Response: Pesticides are addressed in the SEIS alternatives only to the extent needed to address the five problem areas. For example, application of pesticides in riparian conservation areas and critical aquatic refuges would be limited to cases where project-level analysis indicates their application is consistent with the riparian conservation objectives (FSEIS, Appendix A, Amphibians). The FEIS and Final SEIS are programmatic documents and do not address specific types of pesticides to be applied. This type of activity would be a site-specific project proposal, with environmental impacts analyzed and decisions regarding types of pesticides to apply made at the local level.

9.4.82. Public Concern: The Regional Forester and his staff should meet collectively with the members of the QLG to collaboratively develop an implementation plan for the remaining 6 years of the HFQLG Forest Recovery Act.

Response: The Forest Supervisors and staff of the Lassen, Plumas and Tahoe National Forests meet regularly with members of the QLG (QLG Steering Committee) to plan and coordinate implementation of the HFQLG Forest Recovery Act.

9.4.83. Public Concern: The record for the Final SEIS should include the fire severity graph developed by John Hoffman.

Response: The graph is part of the public comment and is included in the record.

9.4.84. Public Concern: The Forest Service should justify why fuel treatments in defense zones have not happened in the last 2 years.

Response: The public concern is not an accurate statement. Projects have been planned and implemented in defense zones.

Rehabilitation and Stabilization

9.5.1. Public Concern: The Forest Service should cease monoculture replanting of bi- and multi-culture forests.

Response: The Forest Service does not practice monoculture replanting, and does restore what was cut to what it was before, except in places where it is clear that the pre-existing condition ought not to have been there. In dense thickets where shade tolerant species, such as white fir, have become up to 80 percent of a stand, having grown up due to decades of fire exclusion, the Forest Service would not replant the white fir at the same percentage it represented before the area was treated. This frequently occurs at the 5,000- to 6000-foot elevation level. A similar situation can occur at low elevations where historically sites that were pine and oak have been encroached upon by incense cedar and white fir, again due to fire exclusion. Replanting in such an area would consist primarily of pine and black oak.

9.5.2. Public Concern: *On page 144 of the Draft SEIS, the phrase "forest restoration (reseeding and replanting)" appears. Forest restoration is not simply "restoring forest tree cover" but something much more ecologically complex. The Final SEIS should provide a detailed definition of forest restoration.*

Response: The reference to forest restoration on page 144 of the SEIS is specifically tied to the President's Healthy Forest Initiative. The SEIS preferred alternative (S2) provides a detailed set of objectives for restoring ecosystems following large catastrophic disturbance events, including wildfires, drought, insects, disease, windstorm, and other unforeseen events. Objectives for restoration projects include managing disturbed areas to address long-term fuels profiles, restore habitat, and recover the value of some of the dead and dying trees. Restoration activities are intended, over time, to restore forest species composition and structure to that which existed prior to the event or to a more desirable condition for a given land allocation (FSEIS, Chapter 2, Alternative S2, Ecosystem Restoration Following Catastrophic Disturbance Events). In addition to clarifying management direction and intent for restoration actions following large catastrophic disturbance events, Alternative S2 also provides standards and guidelines for these types of restoration actions (FSEIS, Appendix A, Snags, Down Wood, Post-Fire Restoration, Salvage).

9.5.3. Public Concern: *The Final SEIS should discuss the potential for losing the Placerville Nursery and disclose alternative seedling sources, costs, quality, and effects on the regeneration program.*

Response: This concern is outside of the scope of the SEIS.

9.5.4. Public Concern: *Proposals for restoration activities after catastrophic fire events must be developed in a way that does not, over time, create the same conditions that contributed to the fire event in the first place.*

Response: Under Alternative S2, objectives for restoration projects following large catastrophic disturbance events include managing disturbed areas to address long-term fuels profiles (FSEIS, Chapter 2, Alternative S2, Ecosystem Restoration Following Catastrophic Disturbance Events). The intent would be to minimize the risk of future fire-related losses of desired vegetation. Restoration activities would be conducted where predicted forest succession was expected to be outside the desired range of species composition and structure. An example would be in the case where a forest comprised of five tree species burned and was predicted to become a manzanita- and whitethorn ceanothus-dominated shrubfield over a 30- to 50-year period, eventually succeeded by sparse white fir and incense cedar tree cover with high fuel loads. Tree removal and reforestation activities would be conducted to reduce predicted future fuel loads, regenerate all five tree species, and begin a successional path predicted to attain a moderately dense tree cover rather than a sparse one (FSEIS, Chapter 2, Alternative S2, Ecosystem Restoration Following Catastrophic Disturbance Events). Project-level planning would be conducted for proposed restoration activities, and would include public involvement and detailed, site-specific environmental analysis.

Forest Health Management

*9.6.1. **Public Concern:** The Forest Plan Amendment should allow a broad range of treatments for forest health, including areas outside of SPLATS and WUIs and for purposes other than fuel reduction.*

Response: Both Alternatives S1 and S2 emphasize a fire and fuels strategy aimed at locating area fuels treatments to interrupt potential wildland fire spread, thereby modifying landscape-scale fire behavior. Alternative S2 allows managers to consider other objectives, including forest health, during project design (FSEIS, Chapter 2, Alternative S2, Table Fa). The inclusion of forest health objectives under Alternative S2 provides local managers added flexibility for addressing local forest health concerns when locating and developing prescriptions for area treatments.

The program of work envisioned under both Alternatives S1 and S2 is aimed at establishing an effective landscape-scale fire behavior modification strategy in a timeframe designed to meet needs for reducing the threat of large, severe wildland fires while conserving habitats for sensitive wildlife species. It is anticipated that placing additional emphasis on an even larger program of work to include broad-scale forest health treatments would lengthen the time and reduce the effectiveness of the fire and fuels management strategy.

*9.6.2. **Public Concern:** The Forest Plan Amendment should establish a strategy for forest restructuring to improve forest health.*

Response: A systematic restructuring of the forest to respond to extensive areas potentially at high risk of pest and drought conditions is beyond the scope of this analysis. The SEIS preferred alternative (S2) provides direction for accomplishing multiple objectives in designing area treatments and is anticipated to make some progress toward addressing forest vegetation problems. Forest health and ecological sustainability will be addressed during the forest plan revision process.

*9.6.3. **Public Concern:** The Forest Plan Amendment should establish goals and controls that limit the ceiling on net forest growth. The Forest Plan Amendment should include standards and guidelines allowing treatment of forest pests.*

Response: It is recognized that growth rates are currently overwhelming management actions to reduce fuel accumulations and to reduce susceptibility of forest stands to bark beetle- and drought-related mortality. However, strategic placement of area treatments to reduce fuel levels and reduce the adverse effects of wildfire is being applied as the appropriate first step. In addition, Alternative S2 would allow local managers to respond to some insect and pathogen conditions as projects were being planned and designed (FSEIS, Chapter 2, Alternative S2, Table Fa).

*9.6.4. **Public Concern:** The analysis of acres to be treated for forest health improvement should be improved in the Final SEIS.*

Response: Stand density reduction, a commonly assumed aspect of "forest health" objectives, is a stated management objective under Alternative S2 (FSEIS, Chapter 2, Alternative S2, Table Fa). The Final SEIS description of Alternative S2 clarifies that, for purposes of the analysis in the Final SEIS, forest health objectives are integrated into priority objectives for modifying wildland fire behavior. Hence, fuels treatment objectives would have first priority in the design of area treatments. However, prescriptions for treatment areas would also address identified needs for increasing stand resistance to mortality from insects and disease. Thinning densely stocked stands could be used to reduce competition and improve tree vigor, thereby reducing levels of insect- and disease-caused mortality. The effects analysis in the

Final SEIS takes this direction into account: the extent of treatments for forest health purposes is expected to be within the range of strategically placed area treatment acreages modeled for Alternative S2.

*9.6.5. **Public Concern:** The Forest Plan Amendment should prohibit logging before and after natural disturbances.*

Response: There are few "natural" disturbances in forests that have not been affected by human influence. Harvesting, designed to reduce inter-tree competition, is a useful tool when forest stand densities are at, or above, levels recognized as thresholds to insect- related mortality. It should be recognized that harvest during high stress periods, such as during drought periods, is generally ineffective at slowing or stopping additional tree mortality. A possible exception to this is when trees can be removed from the area while the beetles are still developing within.

*9.6.6. **Public Concern:** The Forest Service should consider adopting Alternative F4 to re-establish historic fire regimes across landscapes.*

Response: Implementation of strategically placed area treatments is expected to provide for a reduction in adverse effects of wildfires. While it is expected that some progress will be made toward establishing desired fire regimes, neither Alternative S1 nor S2 recognizes this as an explicit goal. Alternative F4 is one of the 9alternatives considered in detail in the SEIS: effects of this and the other eight alternatives are disclosed in the FEIS and SEIS to inform the Responsible Official in making a decision.

*9.6.7. **Public Concern:** The Final SEIS should justify the assertion that forest health is related to stand density.*

Response: While the term "forest health" lacks precision, forest stand density is related to the potential for disturbance from agents, such as drought, fire, and insects. The relationships between host vegetation, pests and drought are complex, and localized examples can be found as exceptions to most broad scale generalizations. The SEIS describes the extent of potential high-density risks in Chapter 3, Part 3.1.1. "Forest Ecosystem Health." Susceptibility to uncharacteristically severe wildfire effects is also considered a forest health topic. Forest stand density can add to the level of fuel hazards within an area, especially where surface fuel and multiple crown layers exist.

*9.6.8. **Public Concern:** The Final SEIS should justify the need to remove hazard trees. The Forest Plan Amendment should consider the option of falling and leaving hazardous trees.*

Response: The need to remove hazard trees is outside the scope of this SEIS. The Forest Plan Amendment will not change standards and guidelines in existing forest plans for removal of hazard trees. Hazard trees and their management are issues that are addressed at the forest level. The Forest Service is responsible for removing hazard trees from areas, such as campgrounds, along roads, and in other areas where the public and employees congregate, to reduce known risks to visitors and workers on National Forest System lands.

*9.6.9. **Public Concern:** The Forest Plan Amendment should identify and minimize the spread of H. annosus. The Final SEIS should analyze management action impacts on the spread of H. annosus.*

Response: The Final SEIS describes the known status of *Annosus* root disease and expected consequences associated with Alternative S1 and S2. The spread of *H. annousus* as a result of vegetation treatments is mitigated during project level planning. Local certified silviculturists, in consultation with

forest health experts when needed, prepare vegetation management prescriptions, which consider and mitigate the effects of a wide range of diseases including *H. annousus*. In addition, the Pacific Southwest Region's Forest Health Protection staff works with local managers to respond to recognized problems. The best available science is used to develop strategies to reduce the spread of this disease as a result of management activities.

Facilities – Utilities, Research, and Educational

*9.7.1. **Public Concern:** The Final SEIS should address impacts to hydropower facilities.*

Response: Most major drainages in the Sierra Nevada region have several dams and water storage reservoirs. The largest dams are located below national forest boundaries in the Sierra Nevada foothills; however, the California Division of Dam Safety regulates more than 175 dams and reservoirs in the Sierra Nevada national forests. The alternatives in this SEIS would neither alter the existence or operations of existing dams or diversions. Although dams and diversions have profound effects on the ecological conditions and processes in riparian ecosystems, they were not analyzed since the alternatives do not address management of dams and diversions (FEIS, Volume 2, Chapter 3, Part 3.4, page 227).

Currently, all California national forests are coordinating closely with the Federal Energy Regulatory Commission (FERC) and power companies who are applying to renew licenses to operate hydropower facilities as required under the Federal Power Act of 1920, Section 4(e). The alternatives in the SEIS do not address hydropower relicensing.

Relicensing is required for projects greater than 5 megawatts capacity and FERC is the lead agency to prepare the National Environmental Policy Act (NEPA) documents with participation by the Forest Service. The Forest Service is the lead Federal agency for projects that are less than 5 megawatts capacity and exempt from relicensing, but require a special use authorization under Forest Service regulations. In the latter case, the Forest Service has the authority to require environmental protection and mitigation for hydropower project operations. Each national forest is to participate in the relicensing process at least 5 years prior to license expiration. The Forest Service identifies needed studies and surveys to be conducted by the applicant, and participates in an early collaborative process with the public and applicants to define issues and needs for Section 4(e) conditions. Additionally, national forests may make advisory recommendations under Section 10(a) to FERC for hydropower projects outside of Forest Service jurisdiction that may impact existing or future projects.

*9.7.2. **Public Concern:** The Forest Service should ensure that information regarding dam and water diversion impacts to species is accurate. The Final SEIS should analyze potential benefits to frog populations from dams.*

Response: Dams and diversions have significant impacts on aquatic, riparian, and meadow ecosystems. Currently, all California national forests are coordinating closely with the Federal Energy Regulatory Commission (FERC) and power companies who are applying to renew licenses to operate hydropower facilities as required under the Federal Power Act of 1920, Section 4(e). Since the alternatives in the SEIS do not propose to alter the existence or operations of dams or diversions, the analysis of environmental consequences of the alternatives does not focus on either the positive or negative aspects of these facilities (FEIS, Volume 2, Chapter 3, Part 3.4, page 227). Cumulative effects related to the presence of existing dams and diversions are discussed under specific species sections; for example, effects of water developments on overall environmental outcomes for the foothill yellow-legged frog are discussed in the FEIS, Volume 3, Chapter 3, Part 4.4, page 211.

Aquatic Management Strategy

9.8.1. Public Concern: *The Forest Plan Amendment should implement the most stringent aquatic protection measures to ensure compliance with the Aquatic Management Strategy.*

Response: Alternatives S1 and S2 share the core elements of the existing SNFPA ROD Aquatic Management Strategy including: aquatic management strategy goals, riparian conservation areas (RCAs) and critical aquatic refuges (CARs), riparian conservation objectives (RCOs), and direction pertaining to anadromous fish-producing watersheds on the Lassen National Forest.

All 9 alternatives considered in the SEIS are designed to maintain or improve water quality on Sierra Nevada national forests. Any site-specific actions taken to implement direction in the Forest Plan Amendment would require compliance with NEPA. An environmental analysis would be completed to assess the potential impacts of proposed activities on water quality and aquatic and riparian systems as well as to ensure consistency with State water quality objectives.

9.8.2. Public Concern: *Compared to Alternative S1, Alternative S2 allows the removal of three times as much timber over the same land base and allows the removal of larger trees and a greater reduction in canopy cover. Combined with the huge increase in road construction, Alternative S2 significantly reduces the likelihood that the aquatic conservation goals will be met.*

Response: The analysis of effects on aquatic, riparian, and meadow ecosystems in the FEIS relies on acreages of mechanical fuels treatments and wildfire projections to compare alternatives (FEIS, Volume 2, Chapter 3, Part 3.4, pages 236 through 237). The FEIS analysis notes that, “when the balance between fuels treatment acres and risk of catastrophic wildfire is assessed, alternatives that lower the risk of fire and have medium levels of treatment propose the least risk to aquatic and riparian systems” (FEIS, Volume 2, Chapter 3, Part 3.4, page 236).

The SEIS summary analysis of the effects of Alternatives S1 and S2 on aquatic, riparian and meadow ecosystems states that both Alternatives S1 and S2 are judged to perform similarly to Alternative Modified 8, which was determined to be among the alternatives expected to pose the least risk of negatively impacting riparian and aquatic ecosystems (FSEIS, Chapter 4, Fire and Fuels).

9.8.3. Public Concern: *The Draft SEIS proposes but fails to analyze significant changes to the overall aquatic strategy. The Aquatic Management Strategy (AMS), as developed under the Framework, is a spatially-explicit strategy for aquatic ecosystem protection and recovery at multiple scales: regional, watershed, and site. The proposed action, however, does not carry forward with this approach and likely will negatively effect aquatic, riparian, and meadow systems within the planning area. While site-specific analysis of individual projects is desirable and indeed necessary, such analysis needs to be couched within larger watershed and bioregional analytical frameworks in order to adequately address the biological effects of the proposed action. For example, if a series of thinning projects are proposed within a heavily roaded watershed with unstable soils, only a landscape-level analysis will provide the information necessary for determining which projects can go forward without pushing the watershed over the threshold of concern.*

Response: Alternatives S1 and S2 share the core elements of the existing SNFPA ROD Aquatic Management Strategy including: aquatic management strategy goals, riparian conservation areas (RCAs) and critical aquatic refuges (CARs), riparian conservation objectives (RCOs), and direction pertaining to anadromous fish-producing watersheds on the Lassen National Forest. In the Final SEIS, the following standard and guideline from the existing SNFPA ROD is retained under Alternative S2: 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, page A-54).

Any site-specific actions taken to implement direction in the Forest Plan Amendment would require compliance with NEPA. An environmental analysis would be completed to assess the potential impacts of proposed activities on water quality and aquatic and riparian systems. The analysis would also include an assessment of cumulative watershed effects relative to thresholds of concern established for watersheds in the project analysis area.

9.8.4. Public Concern: *The Forest Plan Amendment should not weaken existing SNFPA ROD Aquatic Management Strategy provisions for protecting amphibians and other aquatic, riparian, and meadow dependent species.*

Response: Alternatives S1 and S2 retain the core elements of the existing SNFPA ROD Aquatic Management Strategy including: aquatic management strategy goals, riparian conservation areas (RCAs) and critical aquatic refuges (CARs), riparian conservation objectives (RCOs), and direction pertaining to anadromous fish-producing watersheds on the Lassen National Forest.

The SEIS preferred alternative (Alternative S2) does propose changes to specific standards and guidelines pertaining to grazing management in habitat for the willow flycatcher, Yosemite toad, and great gray owl to meet needs for conserving these species while minimizing impacts on grazing allotment permittees by adjusting management based on local conditions (FSEIS, Chapter 2, Alternative S2, Standards and Guidelines for Sensitive Species and Meadow Ecosystem). Effects of these changes on willow flycatcher, great gray owl and Yosemite toad are discussed in Species of the Sierra Nevada, Chapter 4 of the FSEIS.

10. Socio-economic Values

*10.1. **Public Concern:** The Forest Plan Amendment should protect public forests in a natural state to benefit current and future generations.*

Response: The national forests are gems that belong to the public and must be sustained to protect the habitat of wildlife that live in them, allow the current generation to enjoy and utilize them, and to benefit future generations. The national forests differ, though, from national parks. While the mission of the National Park Service is "to conserve the scenery and the natural and historic objects and the wild life therein" (National Park Service Organic Act), the Forest Service was established by law to sustain multiple uses by managing range, recreation, wildlife and fish habitat, watershed, minerals, and timber (Organic Administration Act of 1897 and Multiple-Use Sustained-Yield Act of 1960). The Forest Service is charged with managing uses that are at times conflicting to find "the greatest good for the greatest number in the long run" (Gifford Pinchot, first Chief of the Forest Service). The SNFPA is an attempt to do just that, balancing the need to protect, increase, and perpetuate old forest ecosystems and the wildlife species associated with them with the need to reduce the threat of wildfire to both ecosystems and human communities. The Review Team found that the original decision to implement Modified Alternative 8 of the SNFPA FEIS was too precautionary, compromised successful implementation of the decision's fire and fuels strategy due both to expense and problems with standards and guidelines, and did not adequately address the fuels and wildfire threat. The SEIS Preferred Alternative (S2) is meant to establish a better balance between ecosystem protection/restoration and human communities through a more focused effort on removing fuels, leaving the forest in a condition where the effects of wildfire are less severe and less susceptible to the effects of uncharacteristically severe wildland fires, preserving its beauty for the present and the future.

*10.2. **Public Concern:** The Final SEIS should describe the non-commodity values the Sierra Nevada provides to the economy and the impacts of various alternatives on these non-commodity values.*

Response: Non-commodity values are addressed in the FEIS: refer to the following sections in Volume 2, Chapter 3: Part 3. 4. "Water Quality" (pages 197 through 199) and "Plant and Animal Community Diversity" (pages 204through 206), Part 3.7. "Air Quality" (pages 323 through 354), Part 3.8 "Soil Quality" (pages 355 through 368), Part 5.6. "Recreation" (pages 453 through 500), and Part 5.7 "Scenic Integrity and Landscape Character" (pages 500 through 509). Discussion of these non-commodity values in the text cited above includes their significance to the economy of the Sierra Nevada and the environmental consequences of each alternative.

One of the reasons for the review of the existing SNFPA ROD leading to development of the Draft SEIS was to "reduce the unintended and adverse impacts on recreation users and permit holders" (DSEIS, page 1). The Draft SEIS maintains the goal from the FEIS 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 activities" (DSEIS, page 2). The changes proposed in the Draft SEIS "would not change the types or range-wide availability of recreational opportunities from those described for Alternative Modified 8 in the FEIS" (DSEIS, page 145). The Draft SEIS clarifies that under Alternative S2, "the proposed changes to standards and guidelines for sensitive species will have a limited effect on recreation activity, land use and development in the Sierra Nevada bioregion. In general, the changes allow the management direction for recreation activities to be developed at the local level" (DSEIS, page 238).

10.3. Public Concern*: The Forest Plan Amendment should provide quality tourism opportunities to sustain the regional economy.*

Response: The focus of the SNFPA FEIS and the SEIS is not on recreation management, but on addressing the five problem areas identified in the "Purpose and Need" sections of these documents. The alternatives address recreation only to the extent that standards and guidelines are needed to address the five problem areas.

Recreational activities on national forest lands include camping, boating, swimming, hiking, riding, biking, snowmobiling, skiing, off-highway vehicle use, sight seeing, hunting, fishing, and horseback riding. The importance of these programs and activities to the economy of the Sierra Nevada is clearly outlined in the FEIS, Volume 2, Chapter 3, Part 5.6, pages 453 through 500. Impacts of each alternative on recreation are also examined. The preferred alternative (Alternative S2) clarifies management intent for off-highway vehicles, limited operating periods, and application of several riparian standards and guidelines to recreation activities, uses, and projects. The proposed changes to standards and guidelines have "limited effect on recreation activity, land use and development in the Sierra Nevada bioregion. In general, the changes allow the management direction for recreation activities to be developed at the local level" (DSEIS, page 238).

10.4. Public Concern*: The Final SEIS should consider impacts to natural experience opportunities resulting from logging.*

Response: Only about 1 percent of the Sierra Nevada landbase would be treated in any given year. Most treatment would be fuels reduction - the removal of surface and ladder fuels; some small to medium sized trees may be removed to provide space between tree tops in the canopy cover. Since most medium sized and all trees over 30 inches diameter are retained, this type of logging does not dramatically alter the visual appearance of treated stands other than to open up views through the understory. Many visitors to National Forests are not even aware logging has occurred within a couple years of the treatment. Many visitors actually prefer the park-like look of the treated stands. Salvage and restoration treatments following wildfire would also occur, with the amount varying annually depending on the extent and severity of the events. These events are likely to have more impact on natural experience opportunities than the fuels treatments and associated logging. The Sierra Nevada has been logged, grazed and mined for over 150 years, yet remains heavily used for recreation, aesthetic pleasures, natural beauty experiences, wilderness experience, solitude, and serenity. Effects of logging under the preferred alternative (S2) on soils, hydrology and economics are discussed in their respective sections of Chapter 4 of the FEIS and the SEIS. Also see responses to Public Concerns 10.1 and 10.5.

10.5. Public Concern: *The Final SEIS should analyze the impacts on tourism, recreation and scenic values from logging proposed under the various alternatives.*

Response: Potential impacts to tourism, recreation, and scenic values under the various alternatives are described in the FEIS, Volume 2, Parts 5.6 and 5.7 (pages 453 through 509). The SEIS preferred alternative (S2) retains SNFPA goals for old forest ecosystems, which include: (1) protecting, increasing, and perpetuating desired conditions of old forest ecosystems and conserving their associated species while meeting people's needs for commodities and outdoor recreation activities; (2) increasing the density of large trees, the structural diversity of vegetation, and improving the continuity and distribution of old forests across the landscape; and (3) reversing the declining trends in abundance of old forest ecosystems and habitats for species that use old forests (DSEIS, page 28). The desired condition is to move forest structure and function to resemble pre-settlement conditions. The Final SEIS provides graphics that paint a picture of what this might look like. Tree sizes will range from seedlings to very large diameter trees. The forest will consist of stands of trees in a wide range of sizes and densities. There will be a high level

of horizontal and vertical diversity within landscapes. To arrive at this condition, small trees, which in the past would have naturally died from wildfire or Native American burning practices, will be removed.

Logging trucks and tourists have co-existed for years. The number of logging trucks would still be small when compared to the number in the early 1990s. Less than 1 percent of the landbase will be treated in any single year, so potential impacts to tourists from logging trucks on narrow Forest roads are expected to be minimal.

Tourists will continue to have forested vistas to view, with the goal over time to have fewer of these vistas blackened by the effects of severe wildland fires, as fuels reduction treatments take effect. As natural fire regimes are restored, surface fuels and understory vegetation will be burned, with only small openings created in the canopy by fire, thereby maintaining scenic views.

Also see response to Public Concern 10.4.

10.6. Public Concern: *The Final SEIS should consider all negative "external" costs resulting from logging, including: soil compaction, downstream flooding, siltation of reservoirs, increased fire hazard, increased prescribed burning and smoke with associated public health hazards, below-cost timber sales, global impacts, and introduction of non-native grasses.*

Response: Under both Alternatives S1 and S2, project design and implementation are required to follow Regional and Forest Soil Quality Standards and Best Management Practices. These standards are designed to protect long-term soil productivity and minimize the effects of soil disturbance, movement, and compaction. Both alternatives are expected to provide the necessary protection and maintenance of soil quality. For more information on effects of soil disturbance by logging refer to the SNFPA FEIS Volume 2, pages 360-368.

A primary purpose and need for the SEIS proposed action is that the direction in the existing SNFPA ROD does not adequately address the fuels and wildfire threat. The SEIS preferred alternative (Alternative S2) provides a more focused effort on reducing – not increasing - fire hazard, leaving an environment where the effects of fire are less severe. Refer to the SEIS summary (fire and fuels management), description of alternative S2 (chapter 2) and fire and fuels section of chapter 4.

Regarding prescribed fire and smoke in the environment as a result of logging, the preferred Alternative S2 is predicted to produce many tons less particulate matter from both wildfire and prescribed fire than Alternative S1, which does not rely on logging. The primary reason for the reduction is that the preferred alternative treats more acres mechanically, with more vegetative material removed from the site either as biomass or as timber. With lower fuel loadings, whether a prescribed fire or wildfire occurs following treatment, the result will be lower emissions, protecting public health. In addition, the Forest Service follows strict guidance and direction from the State for smoke management and air quality protection, resulting in lower smoke impacts to the public.

The issue of below-cost timber sales and global issues, such as carbon sequestration, global warming, and use of alternative fibers, are outside the scope of the FEIS and SEIS. On many of the global issues, uncertainty or lack of data exists, and there is no consensus within the scientific community. Environmental analysis and decision-making under the National Environmental Policy Act (NEPA) must be based on available data and current science. Some qualitative judgments are possible by comparing fire effects. Action alternatives that reduce the risk of wildfires will reduce greenhouse emissions; on the other hand, those that harvest more trees may reduce the landscape’s ability to absorb greenhouse gasses for a while. Quantification of these and other variables is not possible.

Regarding the introduction of non-native species from logging, the FEIS uses a common strategy for all action alternatives, and the SEIS maintains the same noxious weeds management strategy. The strategy is

a prevention-based approach to integrated weed management with high potential for reducing the number of acres infested by noxious weeds and preventing weed spread into new areas. The standards and guidelines for noxious weed management provide specific measures to be implemented forest-wide. A project-level noxious weed risk assessment serves as the primary mechanism for prescribing weed prevention measures. The assessments are a standard component of the project planning process for ground-disturbing or site-altering activities. Since the SNFPA has been implemented (January 2001), preventive measures, such as cleaning heavy equipment before entering a site, have become common practice. See the SNFPA ROD, Appendix A, page 15 and pages 30 through 31, and the SEIS, noxious weed section of Appendix A.

10.7. Public Concern: *The Final SEIS should better evaluate potential impacts to communities in the lower reaches of watersheds.*

Response: There are nine Aquatic Management Strategy (AMS) Goals, common to all action alternatives, and one of them pertains to floodplains and water tables: "Maintain and restore the connections of floodplains, channels, and water tables to distribute flood flows and sustain diverse habitats" (FEIS, Volume 1, Chapter 2, page 41). The SEIS preferred alternative (S2) retains these AMS goals from the existing SNFPA ROD.

Not all AMS goals, however, are completely addressed by the FEIS because of limits in its scope. For example, moving conditions towards the "Floodplain and Water Table" goal may require changes in how dams and diversions are operated, or require complex projects to restore floodplains and water tables in meadows. These needs would have to be addressed outside the scope of this SEIS, although the goals themselves remain a part of the purpose of the Sierra Nevada Framework for Conservation and Collaboration to provide consistent direction for ecosystem management among the national forests in the Sierra Nevada.

10.8. Public Concern: *The Final SEIS should consider Forest Service and county road maintenance costs associated with logging proposed under the various alternatives.*

Response: The Final SEIS considers the economics of the alternatives, including the costs associated with forest roads. Just as any other public road user, logging trucks pay their share of costs of public road system maintenance through license fees and gasoline or diesel taxes. Analyzing those costs is beyond the scope of the SEIS.

10.9. Public Concern: *The Final SEIS should evaluate public safety risks associated with log truck traffic on Forest Service and county roads, and state highways.*

Response: The Forest Service does conduct studies on roads prior to logging to ensure that tractor semi-trailers can be safely accommodated. These studies are part of project-level environmental analysis where such details can appropriately be covered at the local, site-specific level. Mitigation measures are utilized as appropriate: roads are reconstructed, pilot cars and flag-men are employed, and specific logging equipment and transport may be required. CALTRANS has authority on State highways and county roads; their purview is not within the scope of this EIS.

10.10. Public Concern: *The Forest Plan Amendment should provide for both full access and species preservation so current and future generations are able to view and appreciate our natural heritage.*

Response: The FEIS discusses effects of roads, road maintenance, road decommissioning, and limited operating periods on access (FEIS, Volume 2, Chapter 3, Part 5.5, pages 443 through 452). The FEIS notes that driving for pleasure, sightseeing, and wildlife viewing are among the most popular forms of

recreation (FEIS, Volume 2, Chapter 3, Part 5.6, page 461 and 472). These activities continue under all 10 alternatives presented in the Final SEIS.

*10.11. **Public Concern:** The Final SEIS should incorporate the most recent demographic, employment, and income data representative of the region's economic structure and trends in its socio-economic analysis.*

Response: Appendix N (Population and Demographics) and Appendix O (Employment) in the Draft EIS (pages N-1 through N-20 and O-1 through O-10) are based on 1998 data provided by the California State Department of Finance and the Nevada State Demographer's Office. (These appendices were not reprinted in the FEIS, Volume 4; however, they were part of the FEIS as noted in the table of contents for Volume 4.) The data is recent enough to be considered as part of the SEIS without updating it. Included are data on ethnicity, projected population through 2010 and through 2040, age distribution with projections through 2010 and 2040, per capita income, estimated labor force, unemployment rates, and employment forecasts by sectors. The Final SEIS includes a section on the social and economic environment highlighting demographic and employment trends.

*10.12. **Public Concern:** The Final SEIS should include analysis of the role of public land in meeting regional timber demand.*

Response: The role of public land in meeting regional timber demand has varied widely over the years. Prior to World War II, national forests were viewed as huge sources of timber that needed to be kept off the market to keep private timber prices high. After the war, national forest timber was sought to supplement or replace heavily cut over private forest lands. In the 1960s, focus shifted to multiple-use along with sustained yield of timber, to ensure that all uses and benefits of the forests received equal attention – recreation, range, timber, watershed, wildlife and fish. The 1970s ushered in the dawn of the environmental movement, spurred partially by a concern over intensive forestry practices, such as clear cutting. In 1979 and 1980, bidding for national forest timber reached an all-time high, just before a wood-products "depression" hit the timber industry: very high interest rates depressed the new-home market, causing the demand and price for lumber products to fall to almost record lows. Nationally, many timber companies went bankrupt while others struggled until the economy picked up in the mid- to late-1980s. Ecosystem management was ushered in during the 1990s, focusing on the sustainability of ecosystems rather than board feet of timber or jobs in communities.

From 1994 through1999, while operating under California Spotted Owl (CASPO) interim guidelines, the Forest Service offered an annual average of 372 million board feet (mmbf) of timber for sale from the 11 Sierra Nevada national forests. That amount is a 57 percent drop from the 1988 through 1993 average of 865 mmbf. The SNFPA Record of Decision signed in January 2001, projected total annual green timber volume for the 11 national forests to be approximately 191 mmbf for the first 5 years (which included approximately 137 mmbf from the HFQLG Pilot Project), and 108 mmbf for the following 5 years upon completion of the Pilot Project. This historical overview may put into perspective the fact that, in 2002, public forests provided an average of only 21 percent of the total volume of timber cut in SNFPA counties. The volume from public lands ranged from 0 to 42 percent of the total for the Sierra Nevada counties. Timber from public forests represented an average of 15 percent of the total value of timber cut.

*10.13. **Public Concern:** The Final SEIS should include information regarding structural changes in the wood products industry.*

Response: Alternative S2 nearly doubles the employment levels in logging, hauling and sawmilling (from 957 to 1,894 jobs) compared to Alternative S1. It is, however, very difficult to make a comparison between the employment levels that Alternative S2 is projected to create with the number of logging and sawmill jobs available (7,314) in the pre-CASPO era of over 10 years ago. The SNFPA Review Team

Report (pages 92 through 93) outlines the situation regarding mill closures in the Sierra Nevada: "In the last two years, five Sierra mills have closed; Collins Pine Co. in Chester, Big Valley Lumber in Beiber, Wisconsin–California in Anderson, Shasta Paper Co in Anderson and Sierra Pacific Industries in Loyalton, laying off 830 employees. Seven additional mills closed during preparation of the SNFPA FEIS eliminating jobs for 400 employees. Since 1992, 27 mills that processed Sierra timber have closed down. In 1993, the CASPO Interim Guideline Environmental Assessment listed 25 sawmill communities (Section IV, page 48). Today, 20 of these communities have closed sawmills. Only 10 of the 25 sawmill communities still have at least one mill operating. Today, 15 mills conduct business in the Sierra Nevada." The SNFPA Review Team Report is dated March 2003, and with the October, 2003 closure of Wetsel-Oviatt in Eldorado Hills, eliminating 120 jobs, the number of operating sawmills is now 14.

Not all of the decrease in the number of mills operating in California is due to decreased logging opportunities on national forest lands resulting from California spotted owl management policies; at least part has resulted from consolidation and increasing efficiency and automation. Many of the 14 mills that remain have retooled to efficiently process the small wood that makes up the majority of material removed in thinning projects aimed at reducing hazardous fuels. At least one retooled sawmill was dismantled and moved out of the Sierra Nevada. The process of updating and retooling has been an opportunity to install the latest technology, which includes automation. Thus, both mill closures and retooling have resulted in loss of employment in the sawmill sector. Advances in technology, such as cut-to-length and other mechanized logging equipment, have resulted in job loss in the logging sector. Yet, while the total volume of timber harvested in California has declined over the last decade, the number of workers employed in the forest products sector has increased. This sector has seen upward trends in employment in recent years, now employing more than half of the workforce in the forest industry. These increases, however, have not made up for the losses in employment from mill closures.

See response to Public Concern 10.15 for further discussion of the sectors that comprise the forest industry.

10.14. Public Concern*: The Final SEIS should fully disclose the socio-economic impacts of limitations on grazing.*

Response: The Final SEIS, in conjunction with the FEIS, ROD, and SNFPA Management Review and Recommendations, presents a detailed disclosure of the socio-economic impacts of limitations on grazing. The SEIS provides information about the projected number of permittees expected to be directly affected, while the FEIS provides the broader picture of the social and economic impacts to communities.

The SEIS provides the specific effects expected on permittees based on recently completely surveys for willow flycatcher and the most current knowledge about distribution of occupied habitat for Yosemite toad. Alternative S2 would result in resolution of impacts for 14 grazing allotment permittees, removing 4 permittees from the low impact category of S1, 7 from the medium impact category, and 3 from the high impact category, all moving to the level of no impact. Both Alternative S1 and S2 are expected to cause a very high impact to seven grazing permittees (Final SEIS, chapter 4, Grazing). The SNFPA Review Team recognized and described the social value that ranches and ranchers offer a community, describing the family traditions, lifestyle, legacy, community connection, and the value of open space both as a public amenity and as an ecosystem providing habitat and habitat connectivity for many wildlife species (*Sierra Nevada Forest Plan Amendment Management Review and Recommendations*, pages 88 through 89). The FEIS discusses the social aspects of grazing in Volume 2, Chapter 3, Part 5.3, page 407. The FEIS recognizes the financial impacts of reductions in grazing to local communities as shown in the comparison of how alternatives would affect estimated numbers of jobs and annual wages by county presented in Tables 5.3d through 5.3j in the FEIS (Volume 2, Chapter 3, Part 5.3, pages 409 through 416).

***10.15. Public Concern**: The Forest Plan Amendment should provide for more logging (particularly in the HFQLG Pilot Area) to meet the socio-economic needs of citizens and businesses, and the need for stable funding for county roads and schools.*

Response: Reduction of unintended and adverse impacts on local communities was one of six reasons for reviewing the SNFPA ROD and associated EIS. The SEIS preferred alternative (Alternative S2) provides approximately twice the employment (direct, indirect, and induced) related to timber harvest that Alternative S1 does (DSEIS, p. 80), and the multiplier effect of logging on the community is described in the FEIS (Volume 2, Chapter 3, Part 6, pages 453 through 454). Logging jobs are relatively high paying, resulting in households with enough disposable income to consume goods unrelated to these jobs, thereby creating jobs for others. In addition, inputs to production are needed, running the gamut from chain saws and gasoline to tractors and logging trucks to bookkeeping and insurance, creating more jobs. The average multiplier for the logging sector of the Sierra Nevada is 1.61, meaning that one job in logging creates an additional 1.61 jobs. The average multiplier for sawmills is 2.04; the average multiplier for the forest products sector is 3.89. Historically, the spin-off from these natural resource sector jobs added stability and economic viability to many rural Sierra Nevada communities. Service sector jobs, which are the mainstay of tourism economies, typically pay lower wages and require fewer production inputs, thus creating fewer spin-off jobs and a lower tax base for counties.

While the emphasis of Alternative S2 is on restoring ecosystems, it acknowledges the objective of providing commercial forest products to meet the needs of people. It proposes a more effective fire and fuels management program, which will better protect life and property from wildland fire. In doing so, Alternative S2 is expected to better protect community assets, such as municipal watersheds and scenic and recreational forested landscapes, which attract tourists who support local economies. Utilizing a more effective mix of prescribed fire and mechanical treatments will mean less impact from smoke on local community airsheds. Alternative S2 utilizes many means to better meet socio-economic needs and community stability compared to Alternative S1.

Regarding the HFQLG Pilot Project, the SEIS preferred alternative (S2) adjusts existing management direction to better reconcile the goals of the pilot project (including commodity production) with those of the SNFPA and its adaptive management theme. The HFQLG Act (see Herger-Feinstein Quincy Library Group Forest Recovery Act of 1998, Sec. 401 c 3) mandates that implementation of the Pilot Project be consistent both with California spotted owl guidelines issued subsequent to the Act, and with applicable Federal law. This section of the law requires that the total acres treated, and any associated volumes produced, are subject to compliance with other Federal laws and California spotted owl management guidelines; therefore, timber volume goals originally projected may not be achieved. Alternative S2 would allow for 52,200 acres of small group regeneration -- 28,200 acres more than the 24,000 acres treated under Alternative S1. Alternative S2 is designed to better meets the goals envisioned by the Pilot Project and will contribute toward producing socio-economic benefits of enhancing community stability in the pilot project area.

Maintenance of County roads and schools was tied in the past to annual payments from forest receipts. Recognizing the decline in forest receipts as timber harvest decreased, Congress remedied the impact on counties with the passage of the “Secure Rural Schools and Community Self-Determination Act of 2000,” signed into law by President Clinton on October 30, 2000. The law ensures that for the 6 years from 2001 through 2006, counties that elect to do so can count on a specific amount of money, equivalent to the amount received historically. The amount is equal to the average of the three highest payments made to the State for the fiscal years 1986 through 1999. This legislation has proved successful and popular, with all Sierra Nevada counties electing this method of payment. Congress is currently working on long-term legislation to re-authorize this approach to payments for 2007 and beyond.

10.16 Public Concern: *The Final SEIS should provide for more logging in order to sustain an industry critical to fire-fighting response and to long-term forest health and sustainability.*

Response: Sawtimber harvest under Alternative S2 is almost three times the level harvested under S1. Alternative S2 is projected to nearly double the employment levels in logging, hauling and sawmilling (from 957 to 1,894 jobs) compared to Alternative S1 (DSEIS, page 80). The SEIS preferred alternative (Alternative S2) deals with many aspects of sustaining long-term forest health. It retains SNFPA goals for conserving old forest ecosystems and their associated species at risk while pursuing more aggressive fuels treatments, considering cost-efficiency and a mechanism to pay for such treatments. Alternative S2 takes into account the importance of maintaining a viable forest industry infrastructure to meet fuel management objectives. Implementation of this alternative would allow for some medium-sized trees (between 20 and 30 inches dbh) to be cut to help reduce fuel ladders, help pay for fuels treatments (making them economical and allowing implementation to keep on pace), and reduce stand densities where forest health (insects and diseases) is a concern. Alternative S2 also incorporates the objective of removing and utilizing dead and dying trees to recover value and support vegetation management objectives (DSEIS, Appendix A, page 270).

The SNPFA Management Review and Recommendations (pages 87 through 93) recognized that the timber industry infrastructure (consisting of woods workers, harvesting operations, saw mills, cogeneration facilities, etc.) "provides a means to achieve ecosystem restoration objectives on the national forests." An industry "developed to provide timber outputs to society for profit is now available to accomplish vegetative treatments (such as fuel reduction thinning) that are restorative to the forest ecosystem." The loss of industrial capacity "to perform the huge task of fuel reduction would be very serious, and possibly irretrievable." The SNFPA Review also made the connection that the logging sector provides skills and capital equipment to protect the forest from wildfire (*Sierra Nevada Forest Plan Amendment Management Review and Recommendations*, page 159). The SNFPA Review Team Report concludes (page 160) that maintaining a viable forest industry is "crucial to undertaking the program necessary to restore historic fire regimes."

10.17. Public Concern: *The Final SEIS should consider future availability of logging contractors in its socio-economic analysis.*

Response: Fuels reduction treatments (shredding, biomass harvest, and thinning) are intensive in nature and will require contractors with equipment and crews be available throughout the Sierra Nevada to meet program needs and keep implementation on pace. Market forces beyond the influence of the Forest Service will play out, and demand for and supply of logging contractors is expected to balance out with time.

10.18. Public Concern: *The Forest Service should work to create local economic opportunities for displaced timber workers in jobs related to fuel reduction, sustaining forest health and restoration activities.*

Response: It is possible that a jobs creation program for displaced timber workers be started, but it is outside of the scope of this SEIS. Congress could initiate such a program, or it is possible such a program could be developed through private/non-profit/agency collaboration.

10.19. Public Concern: *The Forest Service should prioritize the preservation of natural systems barring a clear and compelling net public benefit to commodity extraction.*

Response: Forest plans, amendments and revisions, are based upon consideration of three interdependent elements of sustainability: social, economic, and ecological. The overall goal of the social and economic

elements of sustainability is to contribute to the sustainability of social and economic systems within the planning area. The overall goal of the ecological element of sustainability is to maintain healthy, diverse, and resilient native ecosystems and to maintain species native to National Forest System lands. The Responsible Official must consider the limits of agency authorities and the opportunities afforded by the suitability and capability of the land area when developing plan direction.

10.20. Public Concern: *The Final SEIS should consider the economic impact of various alternatives on recreation tract permittees.*

Response: The SEIS preferred alternative (Alternative S2) proposes changes to specific elements of the existing SNFPA ROD (Alternative S1). The analysis of environmental consequences in the SEIS focuses on potential effects associated with these changes. Effects to recreation associated with the proposed changes to the SNFPA ROD under the preferred alternative (Alternative S2) are compared to existing management direction (Alternative S1) in the recreation section of the SEIS Chapter 4.

In June 2002, after reviewing the SNFPA ROD and FEIS, the Regional Forester listened to concerns about effects to recreation uses and subsequently issued a letter of clarification. The letter dealt with recreation issues that had surfaced during appeal of the FEIS. The letter can be found at: http://www.fs.fed.us/r5/snfpa/library/current-info/rec-issues.html

The letter clarifies the Regional Forester's intent to limit application of certain standards and guidelines in the SNFPA ROD to areas dedicated to growing vegetation. Proposed new or renewals of special use permits and recreation developments/facilities will be evaluated on their merits during site-specific environmental analysis, as required by existing regulation and Forest Service direction.

10.21. Public Concern: *The Forest Service should carefully consider whether impacts associated with increased logging would be adequately offset by relatively minor gains in the woody products industry.*

Response: Timber harvest is a viable tool for hazardous fuels reduction projects in all alternatives being considered. The Responsible Official fully considered and assessed the trade-offs associated with sustaining social, economic, and ecological conditions, values, and outputs associated with the proposed action. Site-specific analysis of the impacts of timber harvest will be considered, analyzed, and mitigated during project level planning and environmental analysis.

10.22. Public Concern: *The Forest Service should ensure that Inyo County businesses and communities will not be adversely affected by management changes.*

Response: The FEIS economic analysis is considered current for the SEIS. Socio-economic effects of the alternatives are discussed in appropriate resource areas in Chapter 3 of the FEIS. Updated bioregional economic information is analyzed and documented in the Final SEIS (Chapter 4). New economic information has been analyzed and documented in the Final SEIS, and is displayed in appropriate resource areas in Chapter 4.

10.23. Public Concern: *The Final SEIS should analyze the impacts of each alternative on private property values.*

Response: The cumulative effect analysis conducted for and documented in the FEIS describes potential effects from national forest management on private lands (FEIS, Volume 2, Chapter 3, Part 1.3, pages 10 through 16). The cumulative effects analysis was updated for the SEIS to reflect new information since the release of the FEIS (SEIS, Chapter 4, Cumulative Effects). Other than a brief update in trends in

California's Forest Practice Rules (SEIS), the information provided in the FEIS regarding potential impacts on private lands is considered current for the SEIS.

10.24. Public Concern: *The Final SEIS should refine the role of economics in meeting land management objectives.*

Response: This concern is beyond the scope of this analysis. The Forest Service is currently developing revised Forest Planning Rules, which address relationships between economic, social, and ecological concerns and land management objectives.

10.25. Public Concern: *The Final SEIS should include more realistic estimates of timber sales costs and revenues. The Final SEIS should include a range of improved estimates for stumpage values.*

Response: The FEIS economic analysis is considered current for the SEIS. Socio-economic effects of the alternatives are discussed in appropriate resource areas in Chapter 3 of the FEIS. Updated bioregional economic information is analyzed and documented in the Final SEIS (Chapter 4). Updated bioregional economic information related to timber harvests has been analyzed and documented in the Final SEIS. Due to wide variation in the timber market within the Sierra Nevada Bioregion, the potential contribution of timber harvest revenues to help off set the costs of fuels reduction will be analyzed and documented in site specific local planning analyzes.

10.26. Public Concern: *The Final SEIS should include data regarding the economic importance of resource-dependent industries.*

Response: The FEIS economic analysis is considered current for the SEIS. Socio-economic effects of the alternatives are discussed in appropriate resource areas in Chapter 3 of the FEIS. Updated bioregional economic information is analyzed and documented in the Final SEIS (Chapter 4). Updated bioregional economic information related to timber harvests and grazing is analyzed and documented in the SEIS in Chapter 4, Commercial Forest Products. Due to wide variation in the timber market within the Sierra Nevada Bioregion, the potential contribution of timber harvest revenues to help off set the costs of fuels reduction will be analyzed and documented in site specific local planning analyzes.

10.27. Public Concern: *The Final SEIS should acknowledge that no alternative will adequately support the wood products industry over the long term.*

Response: The SEIS provides estimates of timber harvest volumes and wood products employment and income associated with fuels reduction, forest health, salvage harvest after catastrophic tree mortality, and small group selection harvest within the HFQLG Pilot Project area (SEIS, Chapter 4, Commercial Forest Products). Historic and recent trends in timber production are discussed in the response to Public Concern 10.12. Long-term timber production within the planning area is outside the scope of this analysis. Timber production suitability and allowable sale quantities will be analyzed during forest plan revisions.

10.28. Public Concern: *The Final SEIS should address impacts on regional employment.*

Response: The FEIS economic analysis is considered current for the SEIS. Socio-economic effects of the alternatives are discussed in appropriate resource areas in Chapter 3 of the FEIS. Historic and recent trends in timber production are discussed in the response to Public Concern 10.12. Updated bioregional economic information is analyzed and documented in the Final SEIS (Chapter 4).

10.29. Public Concern: *The Forest Service should promote the use of forest products for energy generation.*

Response: The Responsible Official recognizes the potential increased use of forest products for energy generation within the scope of this proposed action and analysis. The setting of prices and cost subsidies is subject to the applicable laws, regulations and policies beyond the scope of this proposed action and analysis and the authority of the Responsible Official.

10.30. Public Concern: *The Final SEIS should acknowledge that the economic opportunity associated with biomass is limited.*

Response: There are many factors to consider in the potential for economic opportunity associated with biomass beyond the supply of raw material on National Forest System lands. Price per dry ton, transportation costs, conversion efficiency of existing plants and the market for energy, among others, influence the private business decisions to operate in the biomass industry.

10.31. Public Concern: *The Final SEIS should include a cost-benefit analysis of the proposed changes.*

Response: The FEIS economic analysis is considered current for the SEIS. Socio-economic effects of the alternatives are discussed in appropriate resource areas in Chapter 3 of the FEIS. Updated bioregional economic information is analyzed and documented in the Final SEIS (Chapter 4). Updated bioregional economic information has been analyzed and documented in the Final SEIS, Chapter 4 under appropriate resource areas.

10.32. Public Concern: *The Forest Service should monitor and disclose revenues and costs associated with all timber management.*

Response: Timber sale contracts and stewardship contracts are public documents routinely reported, monitored, and disclosed to the public subject to established regulation and policy. Fees for the use of and prices for materials removed from National Forest System lands is set by law, regulation, and policy beyond the scope of this proposed action and the authority of the Responsible Official

10.33. Public Concern: *The Forest Service should not subsidize for-profit activities.*

Response: Fees for the use of and prices for materials removed from National Forest System lands is set by law, regulation and policy beyond the scope of this proposed action and the authority of the Responsible Official.

10.34. Public Concern: *The Forest Plan should ensure that there is no net loss of revenues to local governments.*

Response: In the past, maintenance of County roads and schools was tied to annual payments from forest receipts. Recognizing the decline in forest receipts as timber harvest decreased, Congress remedied the impact on counties with the passage of the "Secure Rural Schools and Community Self-Determination Act of 2000", signed into law by President Clinton on October 30, 2000. The law ensures that for the six years from 2001 through 2006, counties that elect to do so can count on a specific amount of money, equivalent to the amount received historically. The amount is equal to the average of the three highest payments made to the State for the fiscal years 1986 through 1999. This legislation has proved successful and popular, with all Sierra Nevada counties electing this method of payment. Congress is currently working on long-term legislation to re-authorize this approach to payments for 2007 and beyond.

10.35. Public Concern: *The Forest Service should not use timber sale revenues to fund fuel reductions.*

Response: Timber harvest is a viable tool for hazardous fuels reduction projects in all alternatives being considered. The Knutson-Vandenberg Act (K-V) of June 9, 1930 (16 U.S.C.576-576b; 46 Stat. 527), as amended by the National Forest Management Act of October 22, 1976 (16 U.S.C. 1600 et seq.) (FSM 1011), is the authority for requiring purchasers of National Forest timber to make deposits to finance sale area improvement activities needed to protect and improve the future productivity of the renewable resources of forest lands on timber sale areas. Activities include sale area improvement operations, maintenance and construction for reforestation, timber stand improvement, fuels management, range, wildlife and fish habitat, soil and watershed, and recreation.

During project level planning sale area improvement activities must be designed using an interdisciplinary process that considers all resources within the sale area. Responsible Officials will evaluate long-term environmental, social, and economic benefits within the context of these resources in setting priorities for K-V.

The Responsible Official for the SEIS will consider and assess the trade-offs associated with sustaining social, economic, and ecological conditions, values, and outputs associated with the proposed action in arriving at a decision. The rationale for selecting an alternative for implementation will be fully disclosed in the project decision.

10.36. Public Concern: *The Forest Service should shift budget allocations from logging to ignition prevention in the urban-wildland interface.*

Response: Both the Forest Service and California Department of Forestry and Fire Protection emphasize ignition prevention and fuels management as complimentary parts of an ongoing fire prevention program in the urban-wildland interface. Shifting Forest Service budget allocations is not within the authority of the Responsible Official, and, as such, is beyond the scope of this proposed action and analysis. However the Regional Forester and Forest Supervisors are authorized to establish priorities and determine the locations for the use of the allocated funds within the guidance provided by the Appropriations language and consistent with earmarks for a specific location, such as Lake Tahoe or the HFQLG Pilot Project area.

10.37. Public Concern: *The Forest Service should use commodity revenues to fund fuel reduction efforts.*

Response: See response to 10.35.

Resolution 03-6906

RESOLUTION OF THE PLUMAS COUNTY BOARD OF SUPERVISORS

Requesting Regional Forester Blackwell to immediately analyze and select a sustainable alternative that meets the social, economic, environmental and fire protection concerns of the citizens and businesses in Plumas County

WHEREAS The January 2001 Record of Decision for the Sierra Nevada Forest Plan Amendment Final Environmental Impact Statement was appealed by 250 individuals, organizations, Counties and the Quincy Library Group because of its failure to meet the sustainability requirements of the Organic Act, the National Forest Management Act, the Multiple Use Sustain Yield Act and the Herger-Feinstein Quincy Library Group Forest Recovery Act; and

WHEREAS On November 16, 2001 Forest Service Chief Dale Bosworth affirmed the SNFPA ROD, and directed Region-V Regional Forester Jack Blackwell to commence a review of the ROD for:

- Additional flexibility for aggressive fuel treatments
- New information associated with the National Fire Plan
- Harmonization between the goals of the SNFPA and the H-FQLG Pilot Project; and

WHEREAS On December 31, 2001 Regional Forester Blackwell appointed the review team and broadened the scope of the review to include the assessment of the ROD on grazing, recreation, and ***impacts to local communities*** and further directed that the review achieve:

- The reduction of "lethal" wildfires for the first decade
- Minimize the risk of escaped-fire effects to communities
- Meet NFP time frames for decreasing the acres at extreme risk to fire
- Develop a defensible space network at the appropriate pace and scale so that the network will be in place within the first decade of the NFP
- Develop defensible space network in cooperation with Fire Safe Councils, communities and private landowners; and

WHEREAS On May 23, 2002 Department of Agriculture Secretary Veneman and Department of Interior Secretary Norton met with the Governors of the Western Governors' Association in the joint release and adoption of the 10-Year Comprehensive Strategy Implementation Plan for A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment which ***requires close collaboration*** between the citizens and governments at all levels and stipulates that key ***decisions should be made at the local level***; and

WHEREAS On February 20, 2003 President George Bush signed the FY-2003 Omnibus Appropriations Bill which included Senator Feinstein's amendment that "Congress reaffirms its original intent that the Herger-Feinstein Quincy Library Group Forest Recovery Act of 1998 ***be implemented***, and hereby ***extends the expiration of the Quincy Library Group Act by five years" through 2009***; and

WHEREAS On March 6, 2003 the SNFPA review team released their findings and recommendations to Regional Forester Blackwell: and

WHEREAS On March 11, 2003, the Quincy Library Group and Plumas County filed a Petition for Writ of Mandate seeking to vacate the January 12, 2001 ROD and to prepare a legally sufficient EIS using authorized regulatory procedures under the National Forest Management Act; and

WHEREAS On March 18, 2003 Regional Forester Blackwell announced the schedule for initiating the Supplemental Draft EIS to the SNFPA with a timeline that basically eliminated any meaningful and effective implementation of QLG Pilot Projects during FY-2003 and FY-2004 operating seasons; and

WHEREAS On April 15, 2003, the Forest Service released the FY-2003 Program of Work for the QLG Pilot Project area which ***continues the substandard implementation*** of the Pilot Project for the fourth consecutive season and ***furthers the negative social and economic impacts to the citizens, businesses and local governments***:

- Accomplished acres @ 92,200 acres (38% of plan)
- Merchantable sawlog volume @ 106.2 million bdft (9% of the plan)
- Bio-mass volume @ 594,000 bdtons (54% of the plan)
- Economic activity @ $152 million (9% of the plan); and

WHEREAS On June 2, 2003 the Forest Service published the Draft SEIS for the SNFPA providing three alternatives for public review and comments by September 12, 2003:

S-1 No Action Alternative
S-2 Proposed Action and Preferred Alternative
S-3 Staged Implementation Alternative; and

WHEREAS The Plumas County Board of Supervisor's ***concur*** with the Regional Forester that Alternative S-2 is a significant improvement over the FEIS ROD and appears to provide for a higher level of implementation of the ***resource management activities*** specified in the H-FQLG Act in the ***short term***. However, we ***do not concur*** with the Regional Forester that Alternative S-2 is environmentally sustainable over the ***long-term*** and will provide the critically important social, economic and fire protection benefits to the citizens, businesses and local governments of Plumas County.

NOW THEREFORE BE IT RESOLVED, That the Plumas County Board of Supervisors urgently request that Regional Forester Blackwell work with the Quincy Library Group for the immediate development, analysis and selection of a sustainable Alternative, that corrects:

- The arbitrary Desired Future Condition in S-2, that mandates that 70% of the National Forest landscape will be managed towards a closed canopy forest with predominantly big old trees, is not sustainable and is inconsistent with the goals and objectives of the NFP. A more appropriate and sustainable vision for the forest of the future is the "all aged, multi-story, fire resistant forest ..." that is envisioned in the QLG Community Stability Proposal.

- The annual pace, scale, location and methods of proposed fuel reduction treatments are not sufficient to provide a sustainable solution to the hazardous fuel crisis that is threatening the communities and watershed throughout the QLG Pilot Project area and the balance of the Sierras. The treatment schedule and strategy presented in S-2 is woefully inadequate and fails to meet the fuel reduction and fire protection objectives of the NFP and the WGA's 10-Year Comprehensive Strategy and Implementation Plan.

- The premise in the Final EIS and Draft SEIS that timber management and/or production is no longer a legitimate use on the National Forests but simply a "byproduct" of other (more important) multiple use management objectives is a major shift in the management policies of communities in Plumas County and is in violation of the Organic Act and Multiple Use Sustained Yield Act.

The foregoing Resolution was duly passed and adopted by the Board of Supervisors of the County of Plumas, State of California, at a regular meeting of said Board held on the 12th day of August 2003, by the following vote:

AYES: Supervisors Dennison, Meacher, Olsen and Pearson
NOES: None
ABSENT: Supervisor Nelson

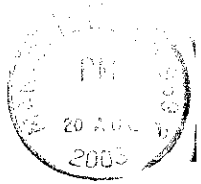
B J Pearson
Chairman of the Board

ATTEST:
Nancy J. DaForno
Clerk of the Board

RECEIVED
AUG 22 2003
CAET

I CERTIFY THAT THE ... COPY OF
Res. 03-6906
ADOPTED BY THE BOARD OF SUPERVISORS OF PLUMAS COUNTY
CALIFORNIA, ON 8/12 19 03
ATTEST
CLERK OF THE PLUMAS COUNTY
BOARD OF SUPERVISORS
Nancy J. DaForno

Plumas County Board of Supervisors
520 Main Street, Room 309
Quincy, CA 95971



Sierra Nevada Forest Plan Amendment
PO Box 221090
Salt Lake City, Utah 84122-1090

84122-1090

SN-334

SHASTA COUNTY

CLERK OF THE BOARD OF SUPERVISORS
A DIVISION OF THE ADMINISTRATIVE OFFICE
H. DOUGLAS LATIMER, CAO/CLERK OF THE BOARD
Glenda K. Tracy, Chief Deputy Clerk of the Board

1815 YUBA STREET, STE 1
VOICE - (530) 225-5550
TOLL FREE IN NORTH STATE - (800) 479-8009
FAX - (530) 225-5189

August 19, 2003

Regional Forester Jack Blackwell
USDA Forest Service
Regional Office-R5
1323 Club Drive
Vallejo, CA 94592

Dear Forester Blackwell:

At the request of County Forester Frank Stewart enclosed please find a certified copy of RESOLUTION NO. 2003-180 which was passed by the Shasta County Board of Supervisors today.

Very truly yours,

Christie N. Jewell
Deputy Clerk of the Board

Enclosure
Cc: Sierra Nevada Forest Plan Amendment DSEIS
County Forester Frank Stewart

RECEIVED
AUG 22 2003
CAET

RESOLUTION NO. 2003-180

A RESOLUTION OF BOARD OF SUPERVISORS OF THE COUNTY OF SHASTA REQUESTING REGIONAL FORESTER BLACKWELL TO IMMEDIATELY ANALYZE AND SELECT A SUSTAINABLE ALTERNATIVE FOR THE SIERRA NEVADA FOREST PLAN THAT MEETS THE SOCIAL, ECONOMIC, ENVIRONMENTAL, AND FIRE PROTECTION CONCERNS OF THE CITIZENS AND BUSINESSES IN SHASTA COUNTY

WHEREAS, the January 2001 Record of Decision (ROD) for the Sierra Nevada Forest Plan Amendment (SNFPA) Final Environmental Impact Statement (EIS) was appealed by 250 individuals, organizations, Counties, and the Quincy Library Group because of its failure to meet the sustainability requirements of the Organic Act, the National Forest Management Act, the Multiple Use Sustain Yield Act, and the Herger-Feinstein Quincy Library Group Forest Recovery (H-FQLG) Act; and

WHEREAS, on November 16, 2001, Forest Service Chief Dale Bosworth affirmed the SNFPA ROD and directed Region-V Regional Forester Jack Blackwell to commence a review of the ROD for:

- Additional flexibility for aggressive fuel treatments
- New information associated with the National Fire Plan (NFP)
- Harmonization between the goals of the SNFPA and the H-FQLG Pilot Project; and

WHEREAS, on December 31, 2001, Regional Forester Blackwell appointed the review team and broadened the scope of the review to include the assessment of the ROD on grazing, recreation, and ***impacts to local communities*** and further directed that the review achieve:

- The reduction of "lethal" wildfires for the first decade
- Minimize the risk of escaped-fire effects to communities
- Meet NFP time frames for decreasing the acres at extreme risk to fire
- Develop a defensible space network at the appropriate pace and scale so that the network will be in place within the first decade of the NFP
- Develop defensible space network in cooperation with Fire Safe Councils, communities, and private landowners; and

WHEREAS, on May 23, 2002, Department of Agriculture Secretary Veneman and Department of Interior Secretary Norton met with the Governors of the Western Governors' Association in the joint release and adoption of the 10-Year Comprehensive Strategy Implementation Plan for A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, which ***requires close collaboration*** between the citizens and governments at all levels and stipulates that key ***decisions should be made at the local level***; and

WHEREAS, on February 20, 2003, President George Bush signed the FY-2003 Omnibus Appropriations Bill, which included Senator Feinstein's amendment that "Congress reaffirms its original intent that the Herger-Feinstein Quincy Library Group Forest Recovery Act of 1998 ***be implemented***, and hereby ***extends the expiration of the Quincy Library Group Act by five years" through 2009***; and

WHEREAS, on March 6, 2003, the SNFPA review team released their findings and recommendations to Regional Forester Blackwell: and

WHEREAS, on March 11, 2003, the Quincy Library Group and Plumas County filed a Petition for Writ of Mandate seeking to vacate the January 12, 2001 ROD and to prepare a legally sufficient EIS using authorized regulatory procedures under the National Forest Management Act; and

WHEREAS, on March 18, 2003, Regional Forester Blackwell announced the schedule for initiating the Supplemental Draft EIS to the SNFPA with a timeline that basically eliminated any meaningful and effective implementation of QLG Pilot Projects during FY-2003 and FY-2004 operating seasons; and

WHEREAS, on April 15, 2003, the Forest Service released the FY-2003 Program of Work for the QLG Pilot Project area which ***continues the substandard implementation*** of the Pilot Project for the fourth consecutive season and ***furthers the negative social and economic impacts to the citizens, businesses, and local governments***:

- Accomplished acres @ 92,200 acres (38 percent of plan)
- Merchantable sawlog volume @ 106.2 million bd. ft. (9 percent of the plan)
- Bio-mass volume @ 594,000 bd. tons (54 percent of the plan)
- Economic activity @ $152 million (9 percent of the plan); and

WHEREAS, on June 2, 2003, the Forest Service published the Draft SEIS for the SNFPA providing three alternatives for public review and comments by September 12, 2003:

S-1 No Action Alternative
S-2 Proposed Action and Preferred Alternative
S-3 Staged Implementation Alternative; and

WHEREAS, the Shasta County Board of Supervisors ***concurs*** with the Regional Forester that Alternative S-2 is a significant improvement over the FEIS ROD and appears to provide for a higher level of implementation of the ***resource management activities*** specified in the H-FQLG Act in the ***short term***. However, we ***do not concur*** with the Regional Forester that Alternative S-2 is environmentally sustainable over the ***long-term*** and will provide the critically important social, economic and fire protection benefits to the citizens, businesses, and local governments of Shasta County.

NOW THEREFORE BE IT RESOLVED, that the Shasta County Board of Supervisors urgently requests that Regional Forester Blackwell work with the Quincy Library Group for the immediate development, analysis, and selection of a sustainable Alternative that corrects:

- The arbitrary Desired Future Condition in S-2 that mandates that 70 percent of the National Forest landscape will be managed towards a closed canopy forest with predominantly big old trees, is not sustainable and is inconsistent with the goals and objectives of the NFP. A more appropriate and sustainable vision for the forest of the future is the "all aged, multi-story, fire resistant forest . . . " that is envisioned in the QLG Community Stability Proposal.

- The annual pace, scale, location, and methods of proposed fuel reduction treatments are not sufficient to provide a sustainable solution to the hazardous fuel crisis that is threatening the communities and watersheds throughout the QLG Pilot Project area and the balance of the Sierras. The treatment schedule and strategy presented in S-2 is woefully inadequate and fails to meet the fuel reduction and fire protection objectives of the NFP and the WGA's 10-Year Comprehensive Strategy and Implementation Plan.

- The illegal premise in the Final EIS and Draft SEIS that timber management and/or production is no longer a legitimate use on the National Forests but simply a "byproduct" of other (more important) multiple use management objectives is a major shift in the management policies of the National Forests and a major threat to the social and economic sustainability of the communities in Shasta County.

DULY PASSED AND ADOPTED this 19th day of August, 2003 by the following vote:

AYES:	Supervisors Clarke, Fust, Hawes, and Wilson
NOES:	None
ABSENT:	Supervisor Kehoe
ABSTAIN:	None

Patricia A. Clarke

PATRICIA A. CLARKE, CHAIRMAN
Board of Supervisors, County of Shasta
State of California

ATTEST:

H. DOUGLAS LATIMER
Clerk of the Board of Supervisors

By: Christie N. Jewell
Deputy

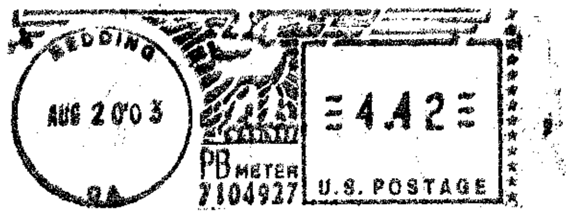
This instrument is a correct copy
of the original on file in this office.

ATTEST: AUG 19 2003

Clerk of the Board
Supervisors of the County of Shasta, State of California
By: Christie N. Jewell

SHASTA COUNTY
Clerk of the Board of Supervisors
1815 Yuba Street, Suite 1
Redding, CA 96001

PRESORTED
FIRST CLASS



SIERRA NEVADA FOREST PLAN
AMENDMENT DSEIS
PO BOX 221090
SALT LAKE CITY UT 84122-1090

84122#1090

SN-335

RESOLUTION OF THE LASSEN COUNTY BOARD OF SUPERVISORS

Requesting Regional Forester Blackwell to immediately analyze and select a sustainable alternative that meets the social, economic, environmental and fire protection concerns of the citizens and businesses in Lassen County

WHEREAS The January 2001 Record of Decision for the Sierra Nevada Forest Plan Amendment Final Environmental Impact Statement was appealed by 250 individuals, organizations, Counties and the Quincy Library Group because of its failure to meet the sustainability requirements of the Organic Act, the National Forest Management Act, the Multiple Use Sustain Yield Act and the Herger-Feinstein Quincy Library Group Forest Recovery Act; and

WHEREAS On November 16, 2001 Forest Service Chief Dale Bosworth affirmed the SNFPA ROD, and directed Region-V Regional Forester Jack Blackwell to commence a review of the ROD for:

- Additional flexibility for aggressive fuel treatments
- New information associated with the National Fire Plan
- Harmonization between the goals of the SNFPA and the H-FQLG Pilot Project; and

WHEREAS On December 31, 2001 Regional Forester Blackwell appointed the review team and broadened the scope of the review to include the assessment of the ROD on grazing, recreation, and ***impacts to local communities*** and further directed that the review achieve:

- The reduction of "lethal" wildfires for the first decade
- Minimize the risk of escaped-fire effects to communities
- Meet NFP time frames for decreasing the acres at extreme risk to fire
- Develop a defensible space network at the appropriate pace and scale so that the network will be in place within the first decade of the NFP
- Develop defensible space network in cooperation with Fire Safe Councils, communities and private landowners; and

WHEREAS On May 23, 2002 Department of Agriculture Secretary Veneman and Department of Interior Secretary Norton met with the Governors of the Western Governors' Association in the joint release and adoption of the 10-Year Comprehensive Strategy Implementation Plan for A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment which ***requires close collaboration*** between the citizens and governments at all levels and stipulates that key ***decisions should be made at the local level***; and

WHEREAS On February 20, 2003 President George Bush signed the FY-2003 Omnibus Appropriations Bill which included Senator Feinstein's amendment that "Congress reaffirms its original intent that the Herger-Feinstein Quincy Library Group Forest Recovery Act of 1998 ***be implemented***, and hereby ***extends the expiration of the Quincy Library Group Act by five years" through 2009***; and

WHEREAS On March 6, 2003 the SNFPA review team released their findings and recommendations to Regional Forester Blackwell: and

WHEREAS On March 11, 2003, the Quincy Library Group and Plumas County filed a Petition for Writ of Mandate seeking to vacate the January 12, 2001 ROD and to prepare a legally sufficient EIS using authorized regulatory procedures under the National Forest Management Act; and

WHEREAS On March 18, 2003 Regional Forester Blackwell announced the schedule for initiating the Supplemental Draft EIS to the SNFPA with a timeline that basically eliminated any meaningful and effective implementation of QLG Pilot Projects during FY-2003 and FY-2004 operating seasons; and

WHEREAS On April 15, 2003, the Forest Service released the FY-2003 Program of Work for the QLG Pilot Project area which ***continues the substandard implementation*** of the Pilot Project for the fourth consecutive season and ***furthers the negative social and economic impacts to the citizens, businesses and local governments***:

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- Merchantable sawlog volume @ 106.2 million bdft (9% of the plan)
- Bio-mass volume @ 594,000 bdtons (54% of the plan)
- Economic activity @ $152 million (9% of the plan); and

WHEREAS On June 2, 2003 the Forest Service published the Draft SEIS for the SNFPA providing three alternatives for public review and comments by September 12, 2003:

S-1 No Action Alternative
S-2 Proposed Action and Preferred Alternative
S-3 Staged Implementation Alternative; and

WHEREAS The Lassen County Board of Supervisor's ***concur*** with the Regional Forester that Alternative S-2 is a significant improvement over the FEIS ROD and appears to provide for a higher level of implementation of the ***resource management activities*** specified in the H-FQLG Act in the ***short term***. However, we ***do not concur*** with the Regional Forester that Alternative S-2 is environmentally sustainable over the ***long-term*** and will provide the critically important social, economic and fire protection benefits to the citizens, businesses and local governments of Lassen County.

NOW THEREFORE BE IT RESOLVED, That the Lassen County Board of Supervisors urgently request that Regional Forester Blackwell work with the Quincy Library Group for the immediate development, analysis and selection of a sustainable Alternative, that corrects:

- The arbitrary Desired Future Condition in S-2, that mandates that 70% of the National Forest landscape will be managed towards a closed canopy forest with predominantly big old trees, is not sustainable and is inconsistent with the goals and objectives of the NFP. A more appropriate and sustainable vision for the forest of the future is the "all aged, multi-story, fire resistant forest ..." that is envisioned in the QLG Community Stability Proposal.

- The annual pace, scale, location and methods of proposed fuel reduction treatments are not sufficient to provide a sustainable solution to the hazardous fuel crisis that is threatening the communities and watersheds throughout the QLG Pilot Project area and the balance of the Sierras. The treatment schedule and strategy presented in S-2 is woefully inadequate and fails to meet the fuel reduction and fire protection objectives of the NFP and the WGA's 10-Year Comprehensive Strategy and Implementation Plan.

- The illegal premise in the Final EIS and Draft SEIS that timber management and/or production is no longer a legitimate use on the National Forests but simply a "byproduct" of other (more important) multiple use management objectives is a major shift in the management policies of the National Forests and a major threat to the social and economic sustainability of the communities in Lassen County.

The foregoing Resolution was duly passed and adopted by the Board of Supervisors of the County of Lassen, State of California, at a regular meeting of said Board held on the 12th day of August 2003, by the following vote:

AYES: Supervisors Chapman, Pyle, Keefer, Dahle, Hansen
NOES: None
ABSENT: None

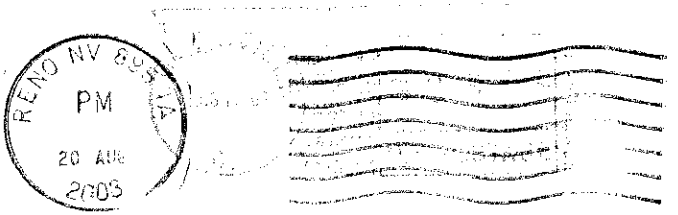
Chairman of the Board

Clerk of the Board

I, THERESA NAGEL, Lassen County Clerk, and ex-officio clerk of the Board of Supervisors, do hereby certify that the foregoing resolution was adopted by the Lassen County Board of Supervisors on the 12th day of August, 2003.

COUNTY CLERK AND CLERK OF THE
BOARD OF SUPERVISORS

LASSEN COUNTY ADMINISTRATION
221 S. Roop Street, Suite 4
Susanville, CA 96130-4339



Sierra Nevada Forest Plan
Amendment DSEIS
PO Box 221090
Salt Lake City UT 84122-1090

84122+1090

ALLEN BIAGGI, *Administrator*

(775) 687-4670

Administration
Facsimile 687-5856

Water Pollution Control
Facsimile 687-4684

Mining Regulation and
Reclamation
Facsimile 684-5259

STATE OF NEVADA
KENNY C. GUINN
Governor

R. MICHAEL TURNIPSEED, *Director*

SN-350

gement
ctions
Federal Facilities

Air Pollution Control
Air Quality Planning
Water Quality Planning

Facsimile 687-6396

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL PROTECTION

333 W. Nye Lane, Room 138

Carson City, Nevada 89706

July 29, 2003

Jack Blackwell
USFS
Pacific Southwest Region

Dear Mr. Blackwell:

I have prepared the following comments after reviewing the Draft Supplemental EIS for Sierra Nevada Forest Plan Amendment. Sections or quotes from the Amendment are shown in italics and are followed by applicable comments.

Tables 4.2.6a and 4.2.6b show that there is a decrease in predicted PM_{10} emissions from wildfire in alternative S1. It states "the data suggest a reduction in public exposure to PM_{10} from wildfires under Alternative S1 in both decades" (page 168)... A comparison of wildfire and prescribed fire emissions reveal that wildfire affects on air quality are approximately ten times greater than prescribed. Therefore, the most likely measure difference in air quality between the alternatives would result from changes in wildfire (page 169).

A decrease in PM_{10} production from wildfires does not necessarily equate with a decrease in PM_{10} exposure. For example, the PM_{10} produced during prescribed burning will likely occur during the late fall and winter, when dispersion conditions are not as good as during the summer and early fall. Furthermore, prescribed fires generally burn much cooler than wildfires, and as a result, the smoke does not disperse as well. If the alternatives are compared in terms of public exposure to PM_{10}, a more detailed analysis of population exposure for each alternative is appropriate, rather than a simply comparing PM_{10} mass.

It is stated, "alternative S2 allows local managers flexibility in deciding where to use mechanical treatments" (page 169).

Does this flexibility include the use of all non-burning alternatives such as intensive grazing where appropriate? Non-burning alternatives would be especially useful in the Wildland Urban Intermix (WUI), where the potential PM_{10} population exposure is greatest.

Alternative S3 would only implement the proposed action for fuels treatments in the wildland urban intermix (WUI) defense zone for the first 5 years to protect the communities in the Sierra Nevada from catastrophic wildfire.

The WUI is one of the most challenging and important areas to achieve hazard fuels reduction. It makes sense that WUI areas should get priority treatment as discussed in alternative S3. There are certainly sufficient WUI areas to fully utilize fire management resources for the next five years. These areas are the most important in terms of protecting communities from wildfire and potential PM_{10} exposure. Ideally, burning WUI areas under controlled circumstances of better dispersion conditions or utilizing mechanical and non-burning alternatives would result in lower levels of smoke exposure to the nearby population.

Sincerely,

Samuel J. Jackson
Smoke Management Coordinator

KENNY C. GUINN
Governor

STATE OF NEVADA

JOHN P. COMEAUX
Director

DEPARTMENT OF ADMINISTRATION
209 E. Musser Street, Room 200
Carson City, Nevada 89701-4298
Fax (775) 684-0260
(775) 684-0209

August 18, 2003

Content Analysis Team
Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

Re: SAI NV # E2003-150
Project: Draft Supplemental EIS for the Sierra Nevada Forest Plan Amendment

Dear Content Analysis Team:

Enclosed are the comments from the Nevada Division of Environmental Protection, the Division of Water Resources, and the Division of State Lands concerning the above referenced document.

These comments constitute the State Clearinghouse review of this proposal as per Executive Order 12372. Please address these comments or concerns in your final decision. If you have questions, please contact me at 684-0227.

Sincerely,

Julie A. Butler

Julie A. Butler
Acting Nevada State Clearinghouse Coordinator/SPOC

Enclosures

NEVADA STATE CLEARINGHOUSE

Department of Administration
Budget and Planning Division
209 East Musser Street., Room 200
Carson City, Nevada 89701-4298
(775) 684-0209
Fax (775) 684-0260

SN-351

RECEIVED
AUG 18 2003
DEPARTMENT OF ADMINISTRATION
OFFICE OF THE DIRECTOR
BUDGET AND PLANNING DIVISION

DATE: June 9, 2003

Governor's Office
Agency for Nuclear Projects
Energy
Agriculture
Business & Industry
Minerals
Economic Development
Tourism
Fire Marshal
Human Resources
Aging Services
Health Division
Indian Commission
Colorado River Commission

Legislative Counsel Bureau
Information Technology
Emp. Training & Rehab Research Div.
PUC
Transportation
UNR Bureau of Mines
UNR Library
UNLV Library
Historic Preservation
Emergency Management
Office of the Attorney General
Washington Office
Nevada Assoc. of Counties
Nevada League of Cities

Conservation-Natural Resources
Director's Office
State Lands
Environmental Protection
Forestry
Wildlife
Region 1
Region 2
Region 3
Conservation Districts
State Parks
Water Resources
Natural Heritage
Wild Horse Commission

Nevada SAI # **E2003-150**
Project: **Draft Supplemental EIS for the Sierra Nevada Forest Plan Amendment**
DOCUMENT CAN BE FOUND ONLINE AT:
WWW.FS.FED.US/R5/SNFPA
Ref. **E2000-144, E2001-003, E2001-093**

___Yes ___No Send more information on this project as it becomes available.

CLEARINGHOUSE NOTES:
Enclosed, for your review and comment, is a copy of the above mentioned project. Please evaluate it with respect to its effect on your plans and programs; the importance of its contribution to state and/or local areawide goals and objectives; and its accord with any applicable laws, orders or regulations with which you are familiar.

Please submit your comments no later than **August 18, 2003.** Use the space below for short comments. If significant comments are provided, please use agency letterhead and include the Nevada SAI number and comment due date for our reference. Questions? Heather Elliott, 684-0209.

THIS SECTION TO BE COMPLETED BY REVIEW AGENCY:

____No comment on this project
____Proposal supported as written
X Additional information below
____Conference desired (See below)
____Conditional support (See below)
____Disapproval (Explain below)

AGENCY COMMENTS:

RECEIVED
AUG 21 2003
CAET

E2003-150

Any improvements to water sources for any use must have an appropriation permit or federal reserved right pursuant to Nevada Revised Statutes (NRS) chapter 533 (surface sources) or an appropriation pursuant to chapters 533 and 534 (underground sources), prior to diverting any water. Existing uses of water must also be permitted, if they are not already.

[signature] for
Signature MICHAEL J. ANDERSON P.E.

DWR
Agency

August 15, 2003
Date

KENNY C. GUINN
Governor

STATE OF NEVADA

JOHN P. COMEAUX
Director

DEPARTMENT OF ADMINISTRATION
209 E. Musser Street, Room 200
Carson City, Nevada 89701-4298
Fax (775) 684-0260
(775) 684-0209

August 18, 2003

Content Analysis Team
Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

Re: SAI NV # E2003-150
Project: Draft Supplemental EIS for the Sierra Nevada Forest Plan Amendment

Dear Content Analysis Team:

Enclosed are the comments from the Nevada Division of Environmental Protection, the Division of Water Resources, and the Division of State Lands concerning the above referenced document.

These comments constitute the State Clearinghouse review of this proposal as per Executive Order 12372. Please address these comments or concerns in your final decision. If you have questions, please contact me at 684-0227.

Sincerely,

Julie A. Butler

Julie A. Butler
Acting Nevada State Clearinghouse Coordinator/SPOC

Enclosures

NEVADA STATE CLEARINGHOUSE

Department of Administration
Budget and Planning Division
209 East Musser Street., Room 200
Carson City, Nevada 89701-4298
(775) 684-0209
Fax (775) 684-0260

SN-352

DATE: June 9, 2003

Governor's Office	Legislative Counsel Bureau	Conservation-Natural Resources
Agency for Nuclear Projects	Information Technology	Director's Office
Energy	Emp. Training & Rehab Research Div.	State Lands
Agriculture	PUC	Environmental Protection
Business & Industry	Transportation	Forestry
Minerals	UNR Bureau of Mines	Wildlife
Economic Development	UNR Library	Region 1
Tourism	UNLV Library	Region 2
Fire Marshal	Historic Preservation	Region 3
Human Resources	Emergency Management	Conservation Districts
Aging Services	Office of the Attorney General	State Parks
Health Division	Washington Office	Water Resources
Indian Commission	Nevada Assoc. of Counties	Natural Heritage
Colorado River Commission	Nevada League of Cities	Wild Horse Commission

Nevada SAI # E2003-150
Project: Draft Supplemental EIS for the Sierra Nevada Forest Plan Amendment
DOCUMENT CAN BE FOUND ONLINE AT:
WWW.FS.FED.US/R5/SNFPA
Ref. E2000-144, E2001-003, E2001-093

Yes No Send more information on this project as it becomes available.

CLEARINGHOUSE NOTES:
Inclosed, for your review and comment, is a copy of the above mentioned project. Please evaluate it with respect to its effect on your plans and programs; he importance of its contribution to state and/or local areawide goals and objectives; and its accord with any applicable laws, orders or regulations ith which you are familiar.

lease submit your comments no later than **August 18, 2003.** Use the space below for short comments. If significant comments are provided, lease use agency letterhead and include the Nevada SAI number and comment due date for our reference. Questions? Heather Elliott, 684-0209.

THIS SECTION TO BE COMPLETED BY REVIEW AGENCY:

___No comment on this project
X Proposal supported as written
___Additional information below
___Conference desired (See below)
___Conditional support (See below)
___Disapproval (Explain below)

AGENCY COMMENTS:

RECEIVED
AUG 21 2003
CAET

RECEIVED
AUG 15 2003
DEPARTMENT OF ADMINISTRATION
OFFICE OF THE DIRECTOR
BUDGET AND PLANNING DIVISION

Signature s:\shardat\clear\clear.doc

STATE LANDS
Agency

8/13/03
Date

KENNY C. GUINN
Governor

STATE OF NEVADA

JOHN P. COMEAUX
Director

DEPARTMENT OF ADMINISTRATION
209 E. Musser Street, Room 200
Carson City, Nevada 89701-4298
Fax (775) 684-0260
(775) 684-0209

August 18, 2003

Content Analysis Team
Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

Re: SAI NV # E2003-150
Project: Draft Supplemental EIS for the Sierra Nevada Forest Plan Amendment

Dear Content Analysis Team:

Enclosed are the comments from the Nevada Division of Environmental Protection, the Division of Water Resources, and the Division of State Lands concerning the above referenced document.

These comments constitute the State Clearinghouse review of this proposal as per Executive Order 12372. Please address these comments or concerns in your final decision. If you have questions, please contact me at 684-0227.

Sincerely,

Julie A. Butler

Julie A. Butler
Acting Nevada State Clearinghouse Coordinator/SPOC

Enclosures

BOARD OF SUPERVISORS
COUNTY OF MADERA

MADERA COUNTY GOVERNMENT CENTER
209 W. YOSEMITE AVENUE / MADERA, CALIFORNIA 93637
(559) 675-7700 / FAX (559) 673-3302 / TDD (559) 675-8970

BONNIE HOLIDAY, Clerk of the Board

SN-459 -

August 25, 2003

Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt lake City, UT 84122-1090

To Whom It May Concern:

On August 19, 2001 the Madera County Board of Supervisors voted unanimously to support the preferred alternative in the Sierra Nevada Forest Plan Amendment Draft Supplemental Environmental Impact Statement (DSEIS).

Madera County contains a large portion of the Sierra Nevada Forest including the forested areas surrounding the communities of Oakhurst, Coarsegold, North Fork and Bass Lake. Every year the residents of those communities fear what would happen if a deadly forest fire, like those that have hit other forests over the past few years, was to ignite in Madera County.

The preferred alternative outlined in the DSEIS is a critical first step in protecting communities from the devastating effects of a large-scale forest fire. Reducing fuel loads and creating interface areas between populated communities and forest areas, while protecting the important resources the forest land has to offer are necessary to provide a safe environment for Madera County residents, wildlife, and the abundant plant life that is found in the Sierra Nevada Forest.

The preferred alternative also has provisions for improving the ability of range permittees and the Forest Service to work together, at the local level, to manage grazing and stock use for resource protection, while protecting their economic viability. It is important this concept be given enough administrative resources to make timely development and implementation of local plans a reality. Ranching is an important part of our diverse economy.

We encourage the approval of the Sierra Nevada Forest Plan Amendment DSEIS and encourage you to continue to seek additional ways to protect those who live in and visit the Sierra Nevada Forest.

Sincerely,

Vern D. Moss
Chairman

VDM/jw

BOARD OF SUPERVISORS
COUNTY OF MADERA

MADERA COUNTY GOVERNMENT CENTER
209 W. YOSEMITE AVENUE/MADERA, CALIFORNIA 93637
(559) 675-7700 / FAX (559) 673-3302 / TDD (559) 675-8970

MEMBERS OF THE BOARD

FRANK BIGELOW
VERN MOSS
RONN DOMINICI
JOHN V. SILVA
GARY GILBERT

BONNIE HOLIDAY, Clerk of the Board

File No: 03048

Tape No: 1-2050

Date: August 19, 2003

In the Matter of PRESENTATION AND DIRECTION TO STAFF ON THE NEWLY RELEASED SIERRA NEVADA FOREST PLAN AMENDMENT (SNFPA) DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (SEIS), USDA FOREST SERVICE.

Presentation made by Dave Martin-District Ranger United States Department of Agriculture (USDA) Forest Service.

Upon Consensus of the Board of Supervisors, it is ordered to send a Letter of Support on Sierra Nevada Forest Plan Amendment Draft Supplemental Environmental Impact Statement.

PRESENT: Supervisors Bigelow, Moss, Dominici, Silva and Gilbert.
ABSENT: None.

Distribution:

ATTEST: BONNIE HOLIDAY, CLERK
BOARD OF SUPERVISORS

By _____
Deputy Clerk

CAO
County Council
CSAC
RCRC
NACo
Congressman Radanovich
Congressman Cardoza
Senator Feinstein
Senator Boxer
USDA

BOARD OF SUPERVISORS
COUNTY OF MADERA
209 W YOSEMITE AVE
MADERA CA 93637-3596

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Sierra Neveda Forest Plan
Aendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

HGGLAMP 84122

SN-461

"John Hofmann"
<johnh@rcrcnet.org>
09/02/2003 03:36 PM

To: <snfpa@fs.fed.us>
cc:
Subject: Comments on Sierra Nevada Draft SEIS

August 29, 2003

Jack Troyer
Jack Blackwell
Regional Foresters
Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

Dear Sirs:

The Regional Council of Rural Counties (RCRC) submits the attached comments pertaining to the Sierra Nevada Forest Plan Amendment Draft Supplemental Environmental Impact Statement. RCRC is dedicated to representing the collective unique interests of its twenty-nine county membership, providing legislative and regulatory representation at the State and Federal levels, and providing responsible services to its members which will enhance and protect the quality of life in rural California counties.

In general, we support the Forest Service development of a Supplemental EIS to the Sierra Nevada Forest Plan Amendment. Additionally, the Regional Council of Rural Counties views the modifications proposed in the Draft SEIS as movement in a positive direction. However, we also believe additional modifications are needed to:

* Maintain the historical management objectives of the national forests that have sustained rural communities with short-term emphasis on fire, insect and disease risk reduction
* Expand the wildland urban interface to protect rural communities
* Expand the treatment authority consistent with the National Fire Plan and pending forest health legislation
* Restore historical vegetative species diversity
* Adopt the favorable elements from other alternatives that would provide the greatest decline in wildfire acres, greatest increase in old forest conditions and the greatest economic benefit

We appreciate the opportunity to comment and look forward to continued participation in the development of the Supplemental EIS.

Sincerely,

John B. Hofmann

Sierra Nevada Forest Plan Amendment
Supplemental EIS Comments

Issue Summary

While far from perfect, the Draft Supplemental EIS is much improved over its predecessor, the Final EIS. It expands available treatments within the wildland-urban interface, removes burdensome vegetative requirements from recreational projects, increases timber harvests, doubles timber-related employment, reduces grazing allotment impacts, improves air quality and reduces implementation costs. The following document details our suggestions for improvement.

Issues	Changes Requested
Overall Management Objective is too narrowly focused.	✓ Specifically include under management objectives, recreational enjoyment, improving grazing capacity, reducing the risk of insect epidemic, and enhancing a sustainable yield of forest products. ✓ Establish fire safe conditions as the minimum standard, not the objective.
✓ The preferred alternative will not provide community protection nor achieve the pace, scale, cost efficiency, fire severity, and insect and disease objectives of the National Fire Plan.	✓ Improve the network by redefining the WUI to 1 structure per 40 acres. ✓ Improve the network by establishing the defense zone from the point that would trigger community evacuations and where national forest system lands are contiguous enough to provide an effective fuel break. ✓ Establish the pace and scale sufficient to have the fuels reduction strategy in place within the first decade. ✓ Establish SPLATs on both sides of defense zone where applicable. ✓ Add DFPZs to fuel reduction strategy until SPLATs are proven effective. ✓ Require treatments to reduce flame length to 4 feet. ✓ Accept only a strategy that will achieve the desired level of lethal acres burned. ✓ Focus plan on reduction of wildfire, <u>insects and disease</u>. ✓ Remove the 20 year limitation on initial

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	treatments ✓ Provide stronger flexibility for insect and disease treatments between SPLATs. ✓ Prioritize SPLATs for high risk areas. ✓ Prioritize treatments on Condition Class 2 and 3. ✓ Remove diameter limits for insect and disease trees. ✓ Remove canopy retention requirements for insect and disease stands ✓ Allow even-age management for insect and disease stands. ✓ Reduce the cost of acres treated to achieve the required acres with the $32 million funding. ✓ ~~Expand list of "primary purposes" for~~ treatments.
Inconsistent with pending forest health legislation.	✓ Define wildland-urban interface as "in or near communities of at least one structure per 40 acres. ✓ Direct treatment of WUI, condition class 2 or 3 near municipal watersheds or supplies, and areas of windthrow, ice storm, insects or disease or at risk of insect or disease.
The preferred alternative continues vegetative species conversion from fire tolerant to fire susceptible vegetative species.	✓ Specify objectives for treatments include native forest vegetative species (pines) regeneration while reducing forest fuels. ✓ Include gap regeneration where needed to restore shade-intolerant species. ✓ Decrease canopy retention standards in fir dominated stands when needed to regenerate pine species.
The DSEIS (Draft Supplemental EIS) did not include a comparison to more flexible alternatives (Alternatives 4, 6 and 7 in particular) as directed by the Chief.	✓ Re-examine and incorporate the favorable elements of F4, F6 and F7 ✓ Add DFPZs to fuels reduction strategy ✓ Remove diameter limits when 15 to 20% of the forest is in old forest condition and in excess of at least 6 trees per acre. ✓ Provide supporting evidence for assumptions ✓ Correct speculative assumptions in risk assessment ✓ Re-assess speculations based upon George Mason University risk assessment study.
Species viability ratings have not been updated.	✓ Re-assess the wildfire impacts on spotted owl viability.

	✓ Include percentage of habitat impacted ✓ Consider duration of impacts from timber harvesting ✓ Exempt activities from restrictions where species do not and are not likely to exist.
Removes commercial purposes of national forests.	✓ Restore commercial tree harvest as a purpose for national forests. ✓ Delete vegetation maintenance as the only activity after 20 years. ✓ Focus on areas between SPLATs after fuels strategy is in place. ✓ Maintain a sustainable harvest level. ✓ Establish goals and controls for a ceiling on net forest growth.
Recreation	✓ Declare vegetative management in connection with Recreational facilities is incidental to which vegetative standards and guides do not apply.
Air Quality	✓ Include assessment on the benefits to air quality. ✓ Re-calculate emissions for all alternatives.

Issue Details

Overall Management Objective Abandons Communities

The objectives of forest management, as stated in the DSEIS are to:

1) "Use thinning, salvage, and prescribed and natural fires to make forests less susceptible to the effects of uncharacteristically severe wildland fires as well as invasive pests and diseases",
2) "Allow fuels and forest health treatments to generate revenues", and
3) "Protecting communities and modifying landscape-scale fire behavior... enhancing forest health, restoring and maintaining ecosystem structure and composition, and restoring ecosystems after large wildland fires. (Pg 45)

Additionally, "Alternative S2 would retain the SNFPA ROD's network of land allocations and their associated desired conditions" (Pg. 45). The designated desired condition stated in SNFPA ROD is not compatible with the above objectives and exclusive focus on the above objectives is not consistent with law. The objectives and the ROD's desired conditions do not include providing recreational enjoyment, improving the grazing capacity of rangeland, reducing the risk of insect epidemic, or enhancing a sustainable yield of forest products. **These objectives cannot remain unstated, to be forever lost as a purpose of the national forests.**

Sierran communities have an historic relationship with the surrounding national forests. No modern diversification can replace it. The transportation system essential to the transformation to urbanization will never exist. Utilization of the abundant resources was the initial purpose of the communities. The Community charm in partnership with the forest setting expands the utilization today, enhancing, not replacing the long established relationship. Both must be preserved and protected.

There is a great danger in focusing management exclusively on fire risk reduction. It begs the question for each project, is the removal of this tree necessary to reduce the risk of wildfire? The answer will be a function of the relationship to suppression capability and safety, not a relationship to the ecology and community. Given our extensive fire suppression work force, greater density forests can be protected from catastrophic wildfire than can be protected from disease, insect, and vegetation species conversion. Insect infested forests offer no companionship to community charm. **Fire risk reduction is but the first of many objectives and the minimum standard to be met. To the degree that time, financial and other factors permit, other objectives should be included in all fire risk reduction proposals.**

The Regional Forester requested the Review Team examine the impacts on communities in the Sierra Nevada. Three community meetings were held. The team concluded, "A major tradeoff of the amendment is that 'conserving ecosystems (is) favored over human Use'. Additionally, a major risk of implementing the ROD is how it affects the 'economic viability of some Sierra Nevada communities'; already in decline." (Management Review and Recommendations pg. 86). Yet there is little in the DSEIS to reduce the social and economic uncertainties.

The DSEIS notes that the jobs under the S2 will double the employment levels from 957 to 1,894 in logging, hauling and sawmilling, but will remain a significant reduction from the 7,314 jobs

prior to the CASPO Environmental Assessment. Impacts to grazing allotments are much improved but not without some significant impacts to allotment use (See pgs. 235-237).

The DSEIS proudly advertises a near tripling of commercial timber harvest. Equally important is the value of the products harvested. Until recently, Counties were paid 25% of the value harvested. The Secure Rural Schools and Community Self-Determination Act of 2000 only temporarily provided safety net payments based upon the average of the three highest years. In 2007, unless extended or replaced by Congress, Counties will again receive 25% of the actual years harvest value. Even the substantial increase in volume over the FEIS will likely pale in revenues from the pre-CASPO years. **The impacts to communities are still not well evaluated.**

National Fire Plan

The Appeals Decision, dated November 16, 2001, directed "the Regional Forester to re-evaluate the decision based on possible new information associated with the National Fire Plan." The Chief particular noted the development of the 10-year strategy by the Western Governors Association. The Regional Forester, by letter dated December 31, 2001 to the Chief confirmed his commitment to follow the Chief's direction. He said, "We will review the relationship between the Sierra Nevada Forest Plan Amendment decision and national wildland firefighting and fuels management. Specifically, we will review the Cohesive Fire Strategy (October 2000), the Western Governors' Ten-Year Comprehensive Strategy (August 2001) and experience with the National Fire Plan to identify new science, policy, and approaches to land management that might help refine the Sierra Nevada Forest Plan Amendment decision." In the Action Plan, he stated, "We will review the Cohesive Fire Strategy and the Western Governor's 10-year Comprehensive Fire Strategy to identify possible new science, policy and approaches to land management that might help to refine and, if necessary, amend the Sierra Nevada Forest Plan Amendment decision... Therefore our review will assure that the ROD achieves the following goals:

- Meet the National Fire Plan goal of decreasing the acres at extreme risk from fire and insects and disease by the time frames stated in the plan.
- Develop a network of "defensible space" at a pace and scale so that this network will be in place within the first decade of the plan (emphasis added).
- Develop this network with Firesafe Councils, communities at risk, and private landowners willing to cooperatively establish the defensible space networks."

The DSEIS fails to achieve the goals of the National Fire Plan. **Reductions in the risk of insects and disease are only of passive interest in the preferred alternative. The proposal has a singular focus of wildfire risk reduction which is accomplished at half the pace specified in the National Fire Plan. "Both the community protection and landscape fuels treatments are accomplished over a 20-25 year period" (Pg 39), not the fist decade. The network of defensible space is not adequate to protect the community and forest.**

Decrease the Acres at Extreme Risk from Fire and Insects and Disease by the Time Frames Stated in the Plan

The projected reductions in wildfire for each alternative are predicated "on the assumption that the alternative is designed to change wildland fire and its effects on the landscape are in place

and accomplished" (pg. 161). The extent to which the projections will be realized requires an evaluation on the likelihood of accomplishment. The DSEIS references only a brief risk and uncertainty associated with S1 and S2, finding S2 with the lower degree of uncertainty associated with implementing the SPLAT approach (see pg. 165). **A detailed risk and uncertainty assessment must be performed for each alternative, including Alternatives 4 and 7, considering the probable budget, effectiveness of treatments, etc.**

In addition to the factors used to evaluate the alternatives in the FEIS, the DSEIS rightfully adds the consequences of potential drought and insect/pathogen outbreaks (pg. 147). The measurement standards for the alternative comparisons are: 1) amount and location of forests treated with vegetation management, 2) ability to suppress out-breaks through direct removal, 3) creation of slash, and 4) potential fire damage (pg. 153). Yet the criteria do not seem to effect the management proposal.

The extended period of excessive moisture, coupled with fire exclusion have changed forest conditions in terms of the dominant tree species, stand structure, landscape patterns of forest structure, drought/insect related tree mortality, fire regime and fire severity/fire effects. According to the DSEIS, the degree of change is dramatic for most forest ecosystems. "Estimates are that a quarter of the ponderosa pines on the West coast are infested [with dwarf mistletoe], and that 30% of the white fire in California is infested" (pg. 95). "[Black stain root] disease is being found with increased frequency in eastside pine stands on the Modoc and Lassen... [and the] westside mixed conifer stands on the Almanor Ranger District have damaging levels of the root disease" (pg. 95). Annosus root disease is infected in 4% of the true fir and is widespread within eastside pine. "Ozone injury is present throughout the Sierra Nevada with a gradient of increasing injury from north to south" (pg. 96). Worth noting, but not considered in the DSEIS, is the warning of global warming which would result in warmer temperatures, decreased moisture and higher snow elevation levels. The DSEIS warns "These conditions do not lend themselves well to withstanding the frequent occurrence of below normal precipitation periods experienced in California" (pg. 95).

1) Amount and Location of Forests Treated with Vegetation Management

Forest health treatments are primarily intended to be within the SPLATs, but may be outside the SPLATs if necessary. SPLATs should be located to meet forest health treatments were feasible. "Forest health prescriptions are envisioned as thinnings in densely stocked stands, where resistance to insects and pathogens has been reduced and could lead to uncharacteristic levels of mortality... Alternative S2 does not preclude the ability of local managers to propose and implement forest health treatments. Mechanical thinning treatments for forest health purposes would be consistent with Alternative S2 forest-wide standards and guidelines for CWHR types 4M, 4D, 5M, 5D, and 6 outside Defense Zones." (Pg. 47) Does this mean forest health treatments are not applicable to other forest types?

The management pattern proposed will aggravate mortality levels. The limited flexibility to treat infected areas makes continuation of catastrophic events probable. Except for SPLATS and the Defense Zone, forest density will increase. All areas, treated and untreated will increase in tree species less tolerant of drought, disease and fire. "Since SPLATs are not focused in the drier portions of the landscape where forest density concerns are greatest, the rate of movement

towards desired conditions, density reductions and pine restoration would be less than if treatments were focused upon the areas of highest risk" (pg. 154). "Partial cutting, including retention of overstory, uneven-aged management generally intensifies dwarf mistletoe in residual trees... and... black stain root disease is usually associated with thinning or soil disturbance and compaction" (pg. 95). "Neither alternative (S1 or S2) will allow for the reduction of dwarf mistletoe impacts."

The DSEIS makes a strong case for early treatment of insect and diseased areas (pgs. 90-92). The DSEIS states in part, "Conclusions from monitoring studies in outbreaks where no action was taken indicate that trees will continue to die from the original infestation until either hosts are not available or trees are less susceptible..." (pg. 90). However, the Standards and Guidelines fail to address early treatments, nor does the preferred alternative encourage treatments. Treatments are even prohibited in protected activity centers and known den sites, sentencing these ecologically valuable areas to certain adverse modifications.

The DSEIS concludes "in terms of this total land base, there is little difference between the alternatives [S1 and S2] in terms of potential to reduce risk of drought/beetle/disease complex-caused mortality" (pg. 155). "The current direction does not provide adequate guidance and flexibility to treat undesirable stand conditions reducing competition, stress, and bark beetle susceptibility; restoring resilient conifer species to the forests; or creating diverse landscapes where bark beetles and fire function in their essential ecological roles" (Management Review and Recommendations pg. 51). **Unless the opportunity exists to restore native forest species and conditions, mortality will increase and with it fire risk, countering the effort to reduce forest fuels.**

2) Ability to Suppress Out-Breaks Through Direct Removal

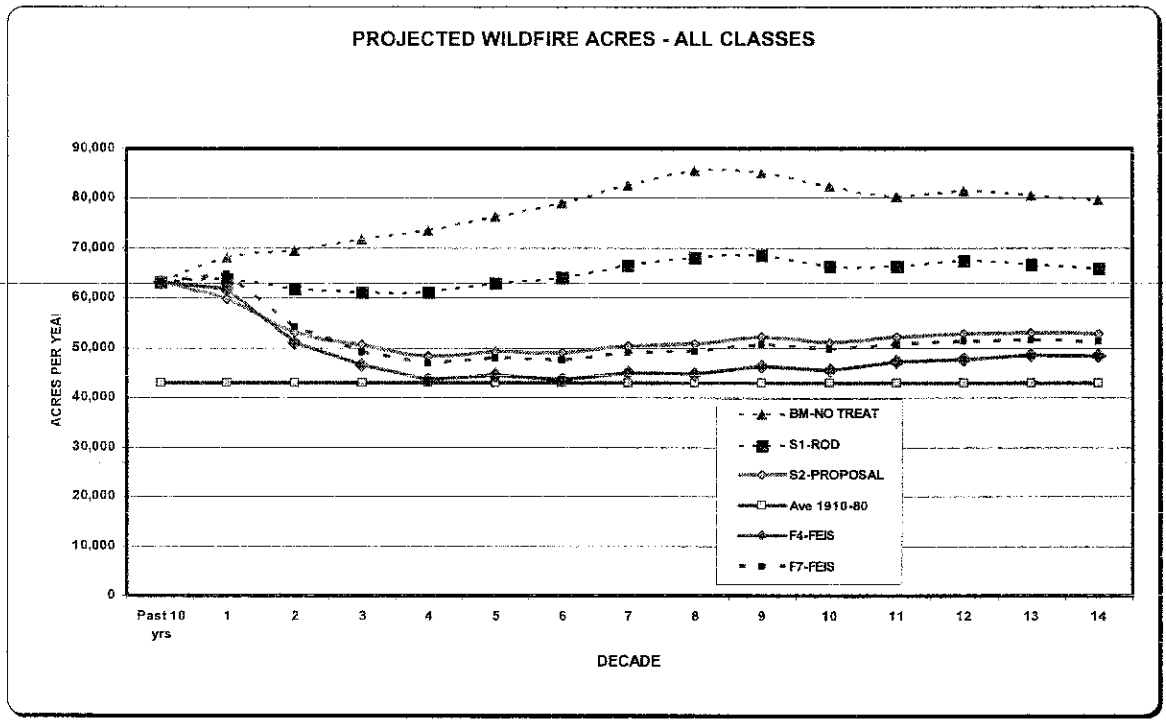
Old forests are of particular concern. The DEIS states "despite the potentially greater resilience of large, and especially older trees to drought, given that they are considered to be below desired levels in the Sierra Nevada, and particularly in the eastside and ponderosa pine dominated forests, reduction of competition for water and nutrients from dense small trees is important to their survival" (pg. 148). Sighting lessons learned from the 1975-79 drought period, "much of the mortality was concentrated in large, high volume pine trees" (Pg. 95). The DSEIS cautions that "any severe insect/pathogen mortality related event can be a significant loss to the remaining old forests" (pg. 147), indicating a potential repeat of the 1975-79 drought conditions. **Proposed harvest limits on tree sizes would prevent early treatments and removal of much of the mortality if similar mortality were experienced in the future.** AS stated in the DSEIS, "diameter limits would further reduce the ability to use this direct control method unless justified by a site-specific exemption through a local forest plan amendment" (pg. 155).

3) Creation of Slash

Slash treatment is evaluated on the amount generated, not the amount treated. All areas treated for fuel reductions would have reduced slash by biomass harvest or prescribed burning. The greatest risk is in areas not permitted treatment. "The ability to deal with non-harvest created green slash, such as the result of a windthrow event, would seem low, especially if it occurred away from the WUI given the current and projected priorities for fuels treatments and budget allocations" (pg. 156).

4) Potential Fire Damage

The DSEIS estimates significant increase in bark beetle activity when fire-related injuries coincide with drought. Given the near universal acceptance of an increasing drought cycle, alternatives associated with higher fire risk will be disproportionately affected with insect infestation. **Alternative S2 will burn an estimated 20,000 acres per decade more than will Alternative 4 and consequently, sustain higher insect-related mortality** (see pg. 156).



Develop a Network of "Defensible Space" at a Pace and Scale so that this Network Will be in Place within the First Decade of the Plan

The network of defensible space is limited to protection for the wildland urban interface. The DSEIS is silent on the definition of the wildland urban interface, therefore it continues the ROD defined intermix as the area surrounding one structure per 5 acres. A ¼ mile Defense Zone is authorized only for such qualifying communities. "Defense Zones extend approximately ¼ mile from areas that have a high density (approximately one structure per 5 acres) of residences, commercial buildings, and administrative sites with facilities. The Threat Zone normally buffers the Defense Zone: it extends approximately 1 ¼ mile out from the Defense Zone. In some cases, where structure density is less than one structure per 5 acres and greater than one structure per 40 acres, a Threat Zone may be delineated in the absence of a Defense Zone" (ROD Appendix A pg. 46-47). As a general rule, if the structure density is less than one structure per 5 acres a Defense Zone is not established and therefore neither is a Threat Zone.

Flexibility to designate a Threat Zone without a Defense Zone is further limited in the DSEIS by the statement, "The current status of the WUI is a mix of mapping based on rigid rules of distance around communities of concern, some local idealized mapping of distances around

collaboratively determined areas of concern and some mapping using fire behavior predictions to determine the most appropriate areas for treatment to protect collaboratively determined areas of concern" (pg. 99, emphasis added). Yet the charts in the DSEIS listing the acreage and the maps in the FEIS outlining the wildland urban interface uses the modeled criteria of one structure per 40 acres, not the ROD criteria of one structure per 5 acres. CDF analysis indicates that the ROD criteria will reduce the number of acres by half. **The Forest Service must adopt the modeled criteria of 1 structure per 40 acres for the intermix area.**

The DSEIS commits "...During the first 5 years of implementation, 75% of fuels treatments under Alternative S2 would be located in the WUI" (pg. 46). Much of this zone will be interspersed with private landowners, making difficult the task of providing an effective barrier between wildlands and the community. Without the cooperation of each adjacent landowner, the Forest Service will fail in its objective. Additionally, evacuations are normally ordered while the fire is a few miles from residents. A mile and a half zone limitation around communities will leave the residents subject to evacuation orders before the fire reaches the wildland urban interface treatments. **The Defense Zone should be located from the point that would trigger community evacuations and where national forest lands are contiguous enough to provide an independent effective fuel break.**

"... The SPLAT strategy is applied across broad landscapes adjacent to Defense Zones" (Pg. 40). Treatments in the Threat Zone and general forest will be identical, namely SPLATs, effectively nullifying the uniqueness of a Threat Zone. Direction to provide SPLATs as the primary vegetation treatment within and without WUI (see pg. 49-51) fails to address forest conditions surrounding communities, allowing Southern California conditions within ¼ mile of rural forest communities. A ¼ mile zone adjacent to the heart of the community will not provide adequate community protection. **Extending the Defense Zone farther from the communities and adding SPLATs on the community side of the Defense Zone would enhance the community protection, be consistent with a strategy for interspersed lands and reduce risk of wildfire departing from the community to the national forest and national forest to the community.**

Vegetation treatments within the SPLATS are the same for all mature stands outside the Defense Zone, namely, retain 40% basal area of the largest trees (30% in eastside pine), 5% of the post treatment canopy in smaller trees 6-24 inches, and 50% overall canopy closure (Pg. 52-53). Only trees less than 30 inches may be removed. This includes dead and green trees. No standards and guidelines are presented for less than mature stands. These standards are not adequate for protection against species conversion or for disease and insect infestation.

The concept of SPLATs is experimental. It has never been tried before. There is an undisclosed risk associated with nearly total reliance on SPLATs. Defensible Fuel Profile Zones (DFPZ), on the other hand, are time tested and proven to be effective. Our communities and resources are too valuable to risk with total reliance on SPLATs. **We recommend the addition of DFPZs for the first decade, or until SPLATs have been tested and proven effective.**

The change in direction from the current ROD regarding the effectiveness of the treatments appears slightly altered in the wrong direction. The ROD pg. 9 states: "Under high fire weather conditions, wildland fire behavior in treated areas is characterized as follows: (1) flame lengths

at the head of the fire are less than four feet..." The DSEIS states, "Managers are directed to design mechanical treatments in SPLATs to reduce surface and ladder fuels to achieve a desired outcome for fire intensity (expressed in terms of a 6-foot flame length) if the SPLAT was to burn under 90th percentile fire weather conditions" (Pg 41). Federal agencies have maintained that flame lengths greater than 4 feet are uncontrollable. **Uncontrollable flame lengths have no place in the Defense Zone of rural communities.**

The desired forest condition for Protected Activity Centers (PACs) are the same inside and outside the WUI, except that mechanical treatments for SPLATs that overlap PACs are prohibited outside the WUI. Since more than 50 percent of the PACs are within the WUI, we would anticipate that the majority of the remaining PACs are concentrated near the WUI. Without the ability to mechanically treat SPLATs in PACs outside the WUI, the SPLAT strategy may fail. An effective wildland urban interface strategy is premised on the establishment of an effective SPLAT strategy outside the WUI. **Mitigation for the limitation on mechanical treatments must be included as part of the SPLAT strategy.**

Develop this Network with Firesafe Councils, Communities at Risk, and Private Landowners Willing to Cooperatively Establish the Defensible Space Networks

"In California, Federal agencies joined with State and local fire protection providers to form the California Fire Alliance. The overall mission of the Alliance is to merge the California Fire Plan and National Fire Plan in ways that provide the public with effective and efficient fire protection statewide" (pg 143). The success of this merger lies in the adaptability of the Sierra Forest Plan Amendment. The flexibility to accomplish the mission is limited to the constraints listed in the ROD and SEIS. **The ROD and DSEIS adds constraints not included in the California Fire Plan, National Fire Plan, or the President's Healthy Forest Initiative. We believe those constraints will prevent accomplishment of the mission of the California Fire Alliance.**

National Fire Plan Performance Measures

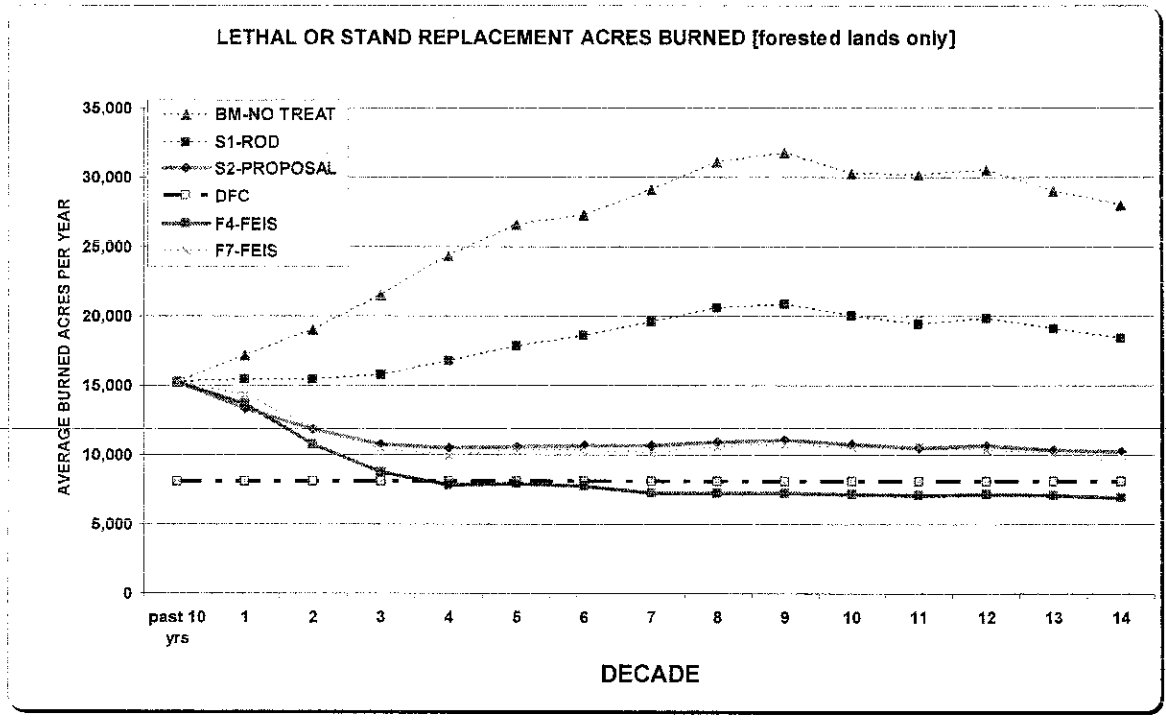
The DSEIS includes performance measures for four goals of the National Fire plan: 1) reduction in the amount of high severity acres burned, 2) the number of acres treated, 3) the number of acres treated per million dollars gross investment, 4) the number of acres treated by mechanical means, 5) restoration of fire adapted ecosystems, and 6) number of acres moved to a better condition class (pg. 97-98).

Considering the performance measures, the SNFPA Review identified the following needed refinements to the ROD to achieve the National Fire Plan Goal.

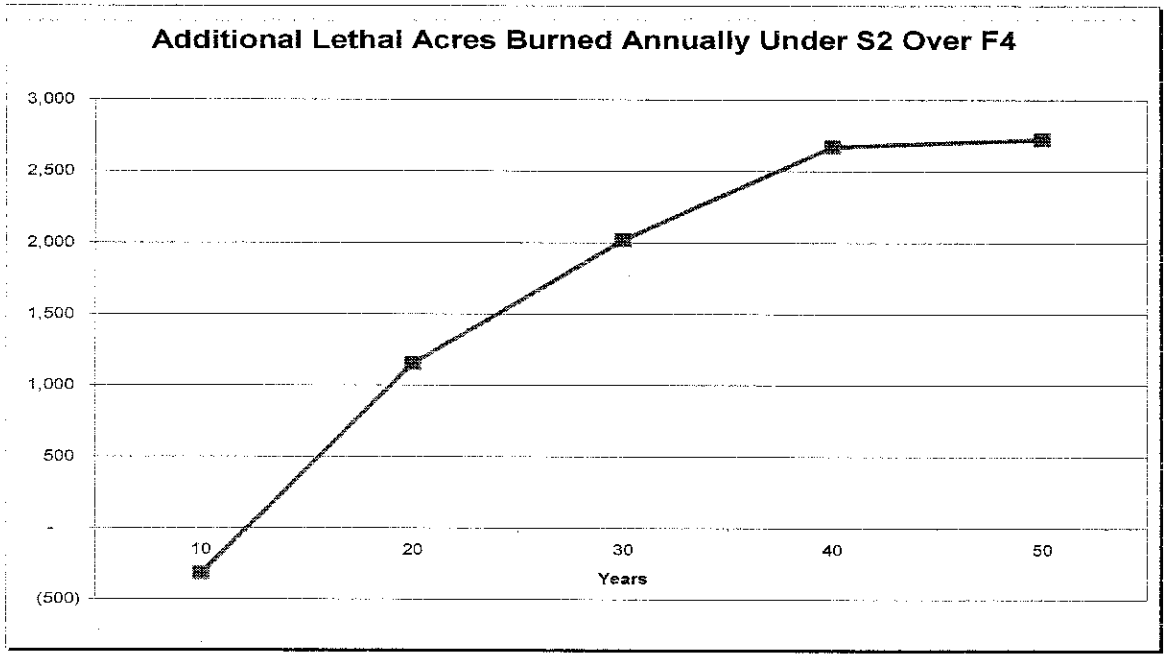
1) Fuels treatments must significantly lower wildfire intensity and rate of spread,
2) Hazardous fuels must be treated in cost-efficient manner to maximize program effectiveness.
3) Management must actively restore fire-adapted ecosystems by making demonstrated progress in moving acres out of an unnaturally dense condition (i.e. moving acres from condition class 2 or 3 to condition class 1. (See pg 30).

The DSEIS fails to provide a direct comparison of the effectiveness of the preferred alternative in meeting these performance measures. However, from the information supplied, it can be concluded that the preferred alternative performs poorly in each of the measures.

Reduction in the Amount of High Severity Acres Burned
Alternative S2 provides some reduction in high severity fires but fails to achieve the desired reduction in high severity fires. Only Alternative 4 achieves the desired condition, which is achieved by the fourth decade.



High severity fire will burn 17% more acres in 50 years under S2 than Alternative 4. **The elements in Alternative 4 that reduce the lethal acres should be evaluated and incorporated into the final alternative.**



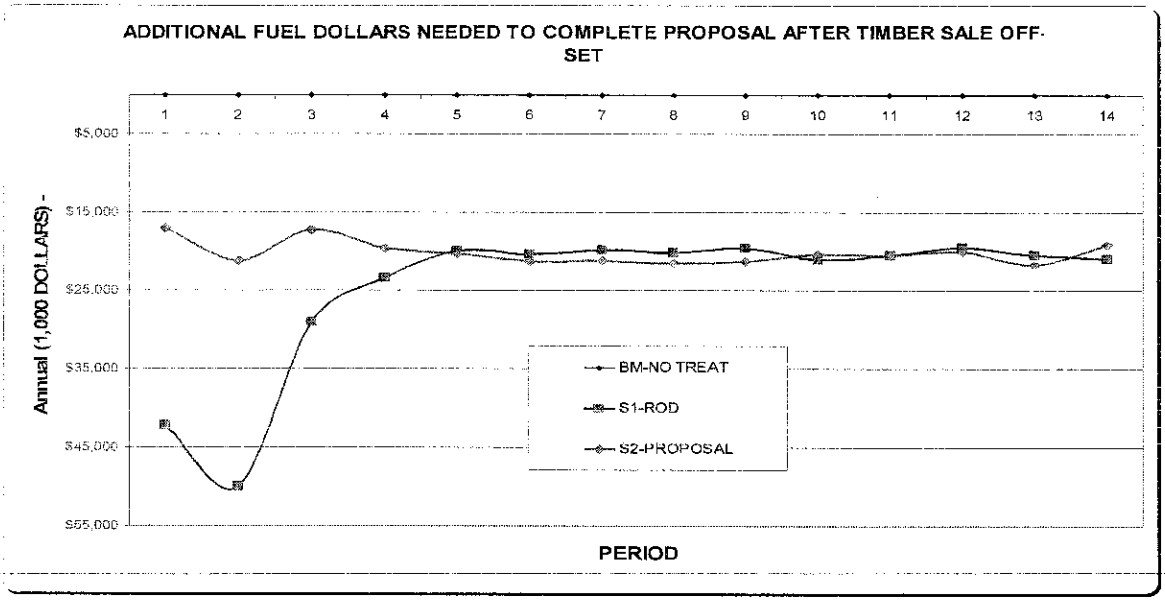
The Number of Acres Treated
The DSEIS does not report the number of acres treated. From the FEIS, we glean, 93,500 acres per year are targeted in the first decade for treatment, both mechanical and prescribed fire, under 8 Modified (S1). Alternative 4 targets 132,100 acres per year.

The Number of Acres Treated per Million Dollars Gross Investment
The effectiveness of the plan boils down to the amount of acres that will be treated to reduce wildfire risk. That is a function of the cost available and the cost to implement. The Forest Service reported under S1, fuel treatment expenditures averaged $1,000 per acre. $32 million dollars is currently allocated for fuels treatment. "Half the money received for fuels reduction work in the Sierra Nevada region was needed for organizational overhead, program management and project level planning and appeals. The remaining $17.5 million represents the net dollar amount available to pay for on-the-ground fuels reduction work" (Management and Review Recommendations, March 2003 pg. 43). To treat 93,500 acres with $17.5 million, the preferred alternative would need to reduce the per acre costs to an average of $187, an 81 percent reduction in cost. What changes enables the Forest Service to achieve such a drastic cost savings?

A separate but related issue is the return on the investment. Congress may be persuaded to allocate more funding if there is a net return to the treasury. The use of stewardship contracts can also extend the use of the funds allocated. Excess revenues from stewardship contracts can be retained on the forest for subsequent stewardship contracts.

The DSIES estimates the cost to treat the S2 specified acres would require $19 million dollars annually more than the revenue generated (see pg. 165). Alternative 4 would return revenues to the Treasury. Unless the funding is available, the treatments will not be completed and the plan becomes a hollow promise. **An assessment must be made to determine the risk and impact associated with budget appropriations. If budget appropriations are not likely to be sufficient to achieve the required acres, the alternative that will treat the most acres for the budget appropriated must be selected.**

As discussed earlier, the primary objective of SPLATs and the Defense Zone is fuel reduction. Dr. Jack Ward Thomas wrote regarding the Northwest Forest Plan, "In order to attain audit approval, an internalized test was derived to assure appropriate and defensible expenditures. Therein, the 'primary purpose' of the management action in question determines the category of appropriated funds that can be appropriately used for the stated purpose" (Application of the Northwest Forest Plan in National Forests in California, pg. 6). Unless funding is shifted by Congress into the fuels treatment program from other programs not of primary purpose, the funding deficit will be much more than the estimated $19 million dollars. For example, the Forest Service will not be able to use timber sale funding under the preferred alternative outside the QLG area. What will the Forest Service do with the budget if Congress insists on funding timber sales because it is the law? How will it compensate for the budget shortfall? **The Forest Service would be better served by keeping the flexibility to offer timber sales for production of forest products, while committing to a prioritization of fuels reduction.**



The Number of Acres Treated by Mechanical Means

The preferred alternative S2 estimates 1,596,000 acres will be treated mechanically over the next 20 years, or an average of 79,800 acres per year of mechanical treatments. By Comparison, Alternative 4 will treat 1,600,709 acres over the same time period. Two key differences are: 1) after 20 years, treatments under S2 will change to maintenance of the areas treated during the first 20 years, effectively stopping future mechanical treatments after 20 years (see pg. 231), and 2) areas treated mechanically in Alternative 4 will be more economical, providing greater certainty that funding will be available to achieve the acres projected.

Restoration of Fire Adapted Ecosystems

Restoration of fire adapted ecosystems will only occur as wildfire burns the acreage between SPLATs and returns frequently. The preferred alternative generally permits treatments only in the Defense Zone and SPLATs outside the Defense Zone. SPLATs are 50 to 1000 acres of treated areas strategically placed to reduce the rate of spread of wildfire. If effective, wildfire acres will be significantly reduced. Therefore, the hope is that minimal acreage will burn outside of the Defense Zone and SPLATs, preventing restoration of fire adapted ecosystems and exacerbating the deteriorating forest conditions.

2,273,000 acres are allocated for treatments under S2. Assuming the treatments are effective and designed to restore fire adapted ecosystems inside the treatment area, **20% of the Sierra Nevada National Forests will be restored to fire adapted ecosystems.**

Number of Acres Moved to a Better Condition Class

"The current estimate of acres in condition class 2 and 3 across the 11 Sierra Nevada National Forests is over 7 million acres. Of this amount, about 3 million acres are estimated to be in condition class 3" (pg. 98). After ten years, this plan hopes to treat less than 800 thousand acres of class 2 and 3 condition or about 11 percent. "This is one area in which the ROD is in significant conflict with the National Fire Plan" (Management and Review Recommendations pg. 47).

Consistency with Proposed Forest Health Legislation

Legislation passed by the Congress which is elected by the people, is a strong indicator of public sentiment. Forest management plans should permit full implementation of the law, to the degree practical. HR 1904 as passed by the House and the recent legislation passed by the Senate Agriculture, Nutrition and Forestry Committee, identify five criteria for priority hazardous fuels treatment: 1) interface communities or intermix communities, 2) federal lands near interface communities or intermix communities, 3) condition class 2 or 3 lands near municipal watershed, 4) condition class 2 or 3 lands with windthrow or blowdown, ice storm damage or threatened by insect or disease insect infestation, and 5) habitat of threatened and endangered species with certain limitations. The interface community is defined as 3 or more structures per acre with shared services. The intermix community is defined as a range between structures very close together to one structure per 40 acres. Thus, criteria 1 and 2 can be combined to areas in or near communities consisting of one or more structures on 40 acres. Structure is here defined as "either a residence or a business facility, including Federal, State, and local government facilities" (January 4 2001 FR)

The DSEIS establishes criteria more stringent than pending legislation. As discussed earlier, the DSEIS defines urban interface as a 1 ½ mile zone from one structure per 5 acres of which the ¼ mile Defense Zone is designated only for such qualifying communities. **Thus the pending legislation would allow treatments near (no distance restrictions) an intermix zone of one structure per 40 acres whereas the DSEIS would allow treatments only near (limited to 1 ½ miles) an intermix zone of one structure per 5 acres.**

Both House and Senate bills include lands in condition class 2 or 3 located in proximity to a municipal watershed, water supply system or a stream feeding a municipal water supply system, or has been damaged from windthrow, ice storm, insects or disease, or is at risk of insect or disease. The legislative bills also include treatments to protect habitat of threatened and endangered species. **Under the DSEIS, treatments in such forest areas are limited to within the SPLATS whose primary objective is to reduce the risk of wildfire threatening communities.**

Species Conversion – Changed Forest Conditions

A focus on fire risk reduction alone ignores the changes in forest conditions that jeopardizes forest health, enabling disease, insects and fire catastrophic events to occur. It allows development of Southern California conditions throughout the Sierras.

Southern California conditions are the direct result of more than a century of increasing forest density. The tree density has decreased the available moisture such that all tree species are dying. The DSEIS describes the conditions as "in addition to extensive mortality in conifer-dominated forests, there are entire hillsides of very drought-tolerant manzanita and live oak that are dead or dying" (Pg. 88).

Some are energetic to find fault with past management practices, namely logging and fire suppression. However, the multi-century practice of vegetation control by Native Americans

through extensive and frequent usage of fire must be acknowledged as a principle contributor. Such intentionally set fires were the principle controller of historical conditions. Anderson and Moratto in the Sierra Nevada Ecosystem Project speculated that "if each pre-contact Indian household had burned only 10 hectares (25 acres) per year, about 143,000 ha (353,000 acres) of the Sierran landscape could have been altered annually, and many times more than this during the multiyear fire intervals" (SNEP Volume II, pg. 197). **The elimination of Native American initiated fire near the end of the 19th century alone would have increased the density over the last 100 years sufficient to threaten forest conditions with catastrophic results.** Yet only marginally is the curtailment of this practice mentioned.

The curtailment of Native American set fires coincided with an increased moisture pattern to promote the dense forest conditions. The DSEIS aptly acknowledges moisture patterns have also heavily influenced vegetative conditions, while continuing to fault fire suppression and tree removal. "In the perspective of a 360-year reconstruction of precipitation, the period since 1890 has been one of moisture surplus. This surplus in combination with fire suppression as well as selective removal of the more drought tolerant pine species since European settlement has resulted in increased forest densities and changed species composition that make forests and other vegetation communities more susceptible to direct and indirectly related drought induced mortality" (pg. 87). Excessive moisture combined with bare mineral soils from centuries of ground fires provided ideal growing conditions for new seedlings and when joined with fire exclusion, as will be shown, were the major contributors to dense forest conditions.

Fire suppression capabilities only came into significance following World War II, although the policy was instituted in 1924. According to David Beesley in SNEP (Volume II pg.15-17), controversy and the Great Depression inhibited implementation of extensive fire suppression programs. The lack of roads, trails and mechanized equipment also limited fire suppression capabilities. Thus, fire suppression played only a minor role in the conversion to dense forests. The term "fire suppression", as used in the preceding paragraph, is more correctly termed "fire exclusion" of which the elimination of intentionally set fires was the principle element.

Selective removal of the larger trees had limited effect on the increased forest density, only in that that it opened the forest to sunlight and removed ground litter that had developed from fire exclusion policies, once again exposing mineral soil for seed propagation. The increased sunlight would have supported regeneration of the pine and other fire tolerant species. Moreover, removal of the pine, described in the DSEIS as more drought tolerant, did not significantly alter the effects of drought, as indicated by the Southern California conditions. Removing low flammable material (large trees) does not increase fire susceptibility.

Large tree removal resulted in the regeneration from fire exclusion that minimized the change in species composition to predominately fire susceptible species such as white fir and cedar. "It is reasonable, however to infer from these data that the proportion of fir (basal areas or volume) has increased by perhaps 10-20 percent, while the proportion of yellow and sugar pines has decreased by a similar amount. We are surprised that this trend has not been stronger, given the preference for logging yellow and sugar pine and the expected successional patterns of the forest. The stand structure at the turn of the century was often quite open, and became more scattered subsequent to heavy logging. These open stand conditions may have favored pine regeneration

and helped to produce the species composition we see today... [Given the current forest density,] the trend toward the more shade-tolerant fir will be enhanced by selective removal of other species, by fire suppression, and by maintenance of the very dense stand conditions that exist in many areas of the Sierra Nevada today" (CASPO pg. 237).

"Alternative S2 includes a standard and guide to favor pine, but it is unclear how much difference this will make in restoration or maintenance of the pine component in these forest types...The slight difference in canopy cover retention standards between the alternatives [S1 and S2] will result in little or no difference in the ability of pine to regenerate, survive and grow to increase the overstory pine component, particularly where stand densities and canopy cover are thought to be greater now than they were historically (dry productive sites, on upper slopes, especially south and west-facing)" (pg. 152). In fact, the DSEIS later admits, "most management activities will tend to favor shade tolerant species at the expense of ponderosa pine, black oak and to a lesser degree sugar pine, madrone and other species with intermediate shade tolerance... Areas that are thinned for fuels reduction will still retain high levels of residual canopy that will provide ample shade and root competition to favor regeneration by shade tolerant species...if such gaps are smaller than about ¼ acre, shade, root competition and other factors discussed above will tend to favor white fir and other shade tolerant species" (pg. 156).

Dr. Jack Ward Thomas recently wrote in his review of the Northwest Forest Plan for Northern California, "Research ...indicate[s] when thinning in a mixed age stand is limited to 'thinning from below' it is not as effective as a more generalized approach in which some larger trees are taken to produce a varied stand structure." The DSEIS referenced several studies that cautioned against single tree selection harvesting due to the near exclusion of shade intolerant pines. Competition for sunlight, and moisture limits the health and type of species regeneration. "After thinning or other harvest that creates openings between trees, existing roots of bordering trees expand rapidly and capture additional resources. Ziemer (1964) found that roots of bordering trees extended new roots about 10 feet into newly created openings and about 30 feet into 5-year old openings. Clearly root competition from residual overstory trees reduces availability of moisture for young seedlings, adversely affecting survival and growth" (pg. 92). "Comparing composition of seedlings under 30 years of age on high site mixed conifer stands in northern California, Lilieholm (1990) found that ponderosa pine was not present under a heavy overstory in an unmanaged stands. However, active management to favor intolerant species in small openings did allow ponderosa pine (intolerant) and sugar pine (intermediate) to persist in stands with an 8 to 12 year re-entry cutting cycle. This finding indicates that where relatively high stocking is retained on high and moderate sites, some active management will be needed to encourage recruitment of intolerant species for future stand development" (pg. 157).

Perhaps for these reasons and others, the Review Team initially recommended gap regeneration treatments which have not been included in this DSEIS. Ultimately, the team recommended "that the Regional Forester initiate additional ecological analysis to determine whether the use of gaps is a desired tool to achieve a sustainable ecosystem structure and composition across the bioregion" (Management Review and Recommendations pg. 101). Limiting harvests to 50% canopy closure or nor more than 30% reduction will not provide the sunlight and moisture needed to regenerate the fire and drought resistant species native to the Sierras. **We recommend the SEIS accept the Review Team's analysis and include gap regeneration in the final**

report, at least in the eastside and westside montane ecosystems and vegetation types where conditions are the most dramatic and in areas of disease and insect infestation (pg. 93).

The key to reducing vulnerability to drought, insect, disease and wildfire is to reproduce less dense forests of shade intolerant species. The DSEIS correctly states, "Forest density, along with composition is an important factor in determining the degree of vulnerability to severe drought, and insect/pathogen related mortality" (pg. 88). Unfortunately, corrective treatments are limited to SPLATs and within SPLATs, the understory, failing to follow its own advice.

DSEIS Comparison to more flexible alternatives

The Appeals Decision, dated November 16, 2001 acknowledged that the FEIS indicated that Alternatives 4 and 6 would treat more acres for fuels reduction, provide for a greater number of large trees, provide for long-term protection for wildlife, and (equally important) the risks for Alternatives 4 and 7 are not unacceptable. Therefore the Chief directed the region to re-evaluate the decision for more flexibility in aggressive fuels treatments. Accordingly, the Regional Forester committed in his December 31 response letter, "We will re-examine elements of Alternatives 4, 6 and 7 that may deserve further attention, particularly the acreage of fuels treatments to reduce the risk of severe wildfire." Further, the Regional Action plan directed the team to "examine elements of Alternatives 4, 6 and 7 which may merit further attention. We will consider incorporating elements of these alternatives in implementation of this decision" (pg. 27). Such commitments are not included in the DSEIS.

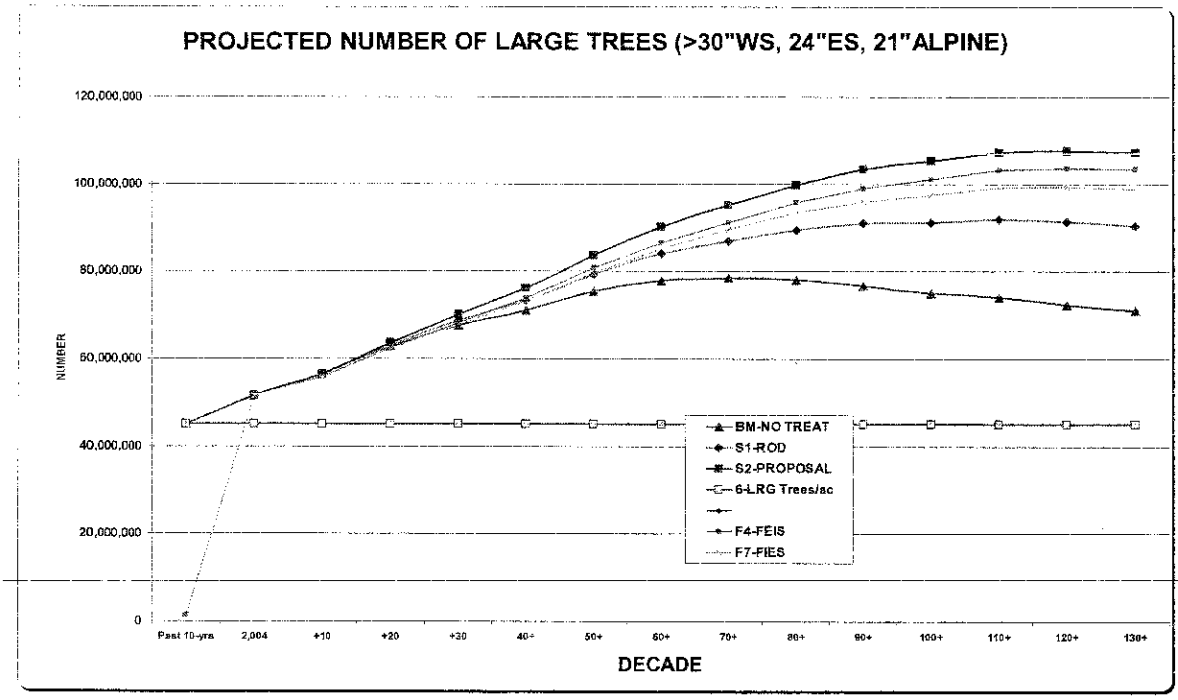
The Draft SEIS fails to provide any comparison between the preferred alternative (S2) and the other alternatives in FEIS. For example, it states "Alternatives F4 and F7 would produce the most timber volume over the first decade…Alternatives F4 and F7 would continue to produce the most timber volume during the second decade". Contrary to those statements it adds in the next paragraph, Alternatives S2 would produce the most timber volume in the first decade and overall" (Pg. 19). A simple comparison of the timber volumes proves the former true. Alternative F4 would produce the most timber volume in all decades. Alternative S2 ranks a low third after F4 and F7 but above S1, S2, and no treatment.

Lacking direct comparisons between alternatives, the reader is left to develop his own comparisons. Intriguing is the difference between the FEIS Alternative 1 (CASPO) and S2 since both adopt the same CASPO standards. Only the land allocations differ. It is apparent that the CASPO elements of Alternative 1 were further incorporated rather than elements of 4, 6 or 7.

The DSEIS discloses "three different factors were used to evaluate the alternatives for the FEIS: (1) the amount and distribution of old forest; (2) fire risk and hazard and predicted losses to wildfire; and (3) old forest functions and processes.

The Amount and Distribution of Old Forest

The DSEIS acknowledges, "The number of large old trees would increase under all alternatives. However, Alternatives F4 and F6 would have the greatest likelihood of maintaining large, live trees with a net increase in large trees in both the short and long term" (pg. 68).



The treatment of large trees was a principle difference between Alternative 4 and the other alternatives. Alternative 4 required the retention of "all conifer trees greater than 30 inches dbh and large hardwood trees ...until old forest conditions (defined as a least six large trees per acre) occurred over at least 15 percent of Sierra Nevada national forest lands... When this goal was reached, large trees could be harvested provided that 15 to 20 percent of national forest lands remained in old forest conditions" (FEIS vol. 1 Chapter 2 pg. 106-107). The DSEIS provides a comparison to the historical large tree component of old forests. "Survey of representative old forest//late seral stands indicate that natural conditions support approximately 6-7 trees over 30" dbh/ acre. Current inventory and modeling indicate approximately 10 trees > 30" dbh/ac as current average conditions, rising to approximately 16 trees /acre > 30" dbh at 20 years" (Pg. 173). **There is no ecological justification for prohibiting harvesting of all 30" diameter trees. The standards and guides should require retention of a range of large trees based upon conservative historical conditions, the remainder of which may be removed.**

The DSEIS concludes "both alternatives [S1 and S2] include desired conditions for old forest that are based in part on historic conditions and therefore, this measure [historical condition] is not as critical as the degree and rate at which the alternatives emphasize or make progress toward the desired conditions" (pg. 148). Pertaining to large tree patches (LSOG 4 & 5), the DSEIS found "neither of the alternatives (S1 and S2) reached 40 percent of the forested landscape until the seventh decade" (pg. 150). Interesting is this conclusion, "therefore it is uncertain whether the existing old forest conditions are retained or whether there will be progress in moving toward achieving the bioregional old forest desired conditions" pg. 152, emphasis added). Overall, the degree and rate of old forests are greatest in Alternative 4 which is the first to reach the 40 percent desired condition in 50 years.

Fire Risk and Hazard and Predicted Losses to Wildfire
Potential losses to severe wildfire would also be less under F4. "Alternatives F4 and F6 emphasize fuel treatments in a strategic pattern, and watersheds with the highest fire hazard and risk have highest priority for treatment. Therefore, expected losses of old forest from severe wildfire are least for these alternatives" (pg. 68).

On the other hand, "Alternative S1 causes a slight reduction in the likelihood of loss of old forest to high severity fire compared to no treatments at all... S2 [is] more effective in changing fire behavior...however, the emphasis is on the WUI for at least the first five years, where only a [limited] portion of the old forest occurs. After the first decade, there is...uncertain[ty] as to the extent of changes in wildfire in old forest... possibly little or no difference from Alternative S1 in other (outside WUI) old forest locations" (pg. 149).

The confidence associated with the reduction in wildfire risk should be rated considerably greater under Alternative 4 than the other alternatives. S1 and S2 rely on the theoretical success of SPLATs. Controversy surrounds its effectiveness. It is unproven and untested. Alternative 4 relies on a combination of the time-tested effectiveness of defensible fuel profile zones (DFPZs) and SPLATs. **We believe DFPZs should be added to the fuel reduction strategy for at least the first decade until the effectiveness of SPLATs can be verified.**

Old Forest Functions and Processes
In apparent contradiction, the DSEIS states, "Alternative F4 would provide a reduced level of water quality protection compared to Alternatives F2, F5, F6 and F8 primarily due to the likelihood of high severity wildfire impacts under this alternative... Alternative F4 would be the least effective of the action alternatives in meeting the AMS goals." This is obviously a carry-over from the draft EIS which also stated, "Impacts from wildfire and extent of riparian area protection were considered to be most important in reaching this conclusion" (Draft EIS Chapter 3-133). Since Alternative 4 is in actuality the least likely to suffer from severe wildfire, it must likewise provide the greatest protection to water quality and the greatest contribution toward AMS goals. **The analysis needs to be corrected.**

Likewise, Alternative 4 was downgraded because it would not protect all owl nest sites from treatments. "Alternative F4 is projected to produce slight declines in high quality California spotted owl habitats, and would not protect all spotted owl nest (or primary roost) stands" (Pg 71-72). But neither will S2. According to the Review Team's findings, slight declines in "high quality" habitat may be best for the owl. First, according to the FEIS, the majority of owl sites are in low to moderate hazard class ratings. In fact more owls are in moderate hazard class than the high, indicating that treatment of the high hazard class to a moderate hazard class may be beneficial for the owl. This is also confirmed by Dr. Danny Lee's re-assessment of the owl data and findings that a noticeable improvement in productivity occurred when canopy cover exceeded 50% but when over 70%, the productivity decreased. The re-assessment suggested the ideal mix was 26% of the habitat in less than 20% canopy cover, 42% in dense canopy cover and the balance of 38% in light to moderate canopy cover. Outside the core habitat area (1000-acre surrounding the nest tree), canopy closure had no apparent relationship to productivity. We encourage the Forest Service to especially note the DSEIS conclusion, "Based on this new

information, these low viability ratings would be higher" (pg. 243). **These findings deserve a new assessment of the risk in relationship to the alternatives.**

A similar risk assessment is associated with the pacific fisher. "Alternative 4 would result in lower fisher abundance and distribution as it would slight[ly] decrease the availability of habitat elements important to fishers" (pg. 73). The assessment appears to ignore the fact that according to the Fish and Wildlife Service response to the petition to list the fisher, only three fisher populations have been documented recently: one in the Siskiyou, Klamath and Trinity ranges, one in Southern Oregon, and one in the southern Sierra Nevada. Natural and manmade barriers make it unlikely existing populations will migrate into unpopulated regions. Therefore, management in the majority of the Sierra Nevada would have no affect on the pacific fisher.

Without explanation or supporting evidence, the evaluators assigned greater risk to mechanical treatments than no treatment or prescribed fire. The evaluation for Alternative 4 concluded: "A low degree of confidence exists that there would be no adverse effect on old forest habitats because of the concern that extensive reliance on mechanical treatment would damage resource values" (pg. 243). "Mechanical treatments are assumed to have more potential for adverse effects primarily due to soil compaction and soil disturbance" (pg. 160). "Alternative S2 might be thought to have a higher potential risk to aquatic resources than Alternative S1 simply because it prescribes slightly higher amounts of mechanical treatments" (pg. 161). This is inconsistent with the assigned risk of wildfire, which is the greatest uncertainty. Alternatives with the highest risk of wildfire result in the lowest risk assessment and run contrary to the purpose of the DSEIS.

The risk assessment must include the estimated acres disturbed by wildfire. According to the Forest Service estimates, after 50 years, the combination of mechanical treatments and wildfire will disturb 400,000 acres more under Alternative 4 then under S1. These estimates assume the acres disturbed are all separate acres. The purpose of the mechanical treatments is to reduce the spread of wildfire, therefore, an overlap in acres treated is expected. If wildfires burn into just 40% of the treated acres, Alternative 4 will disturb fewer acres than S1.

Supporting evidence must accompany the assumptions. Lacking supporting evidence, the risk and uncertainty must be evaluated and fully disclosed consistent with the concepts established in the George Mason University study.

Wildlife Species Viability

As indicated previously, wildfire is the greatest risk to wildlife. The DSEIS records an average annual loss of 4.5 spotted owl PACs to wildfire since 1998 or 0.34% per year (pg. 114). **The analysis needs to include the spatial arrangement of PAC loss to assess the pattern of likely future losses.** How long before the wildfire losses lead the spotted owl into a listing determination? If timber harvest resulted in similar losses it would be curtailed immediately.

It is important to place the potential modifications through treatments into context. The percent of forest treated is marginal for species viability. The pine marten habitat analysis is an example. The core of the martin habitat is in the red fir zone. The proposed treatments in all alternatives would be primarily below the red fir zone. The SPLAT treatment in S2 would treat 25% of the

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Threat Zone, General Forest and Old Forest Emphasis Area allocations in high risk areas. "The remaining 75% of these land allocations are not specifically proposed for mechanical treatment under either Alternative S1 or S2. Therefore, marten habitat within 75% of the land base (85% of total available habitat) is expected to remain the same regardless of which alternative is selected" (pg. 180).

The assessment of Dr. Jack Ward Thompson for California forests in the Northwest Forest Plan is applicable here. "With so little management activity ongoing, it seems rational to conclude that what has happened to date, or is forecast to occur in the short term, could have had little, if any, significant overall effect on any species in the short run. The areas that have been impacted by management action are miniscule compared to acres that have burned, many in stand-replacing fires, over the past several years" (Application of the Northwest Forest Plan in National Forests in California).

Habitat modification through timber harvesting has little adverse effect on most of the T&E species listed in Section 3.2. The red-legged frog is found along streams void of bullfrogs and introduced fish, and limited to a few of the national forests (Pg. 106). Likewise, mountain yellow-legged frog populations are most successful where predatory fishes are absent (pg. 121). Least Bell's vireo populations are showing dramatic increases following extirpation from the central valley, once its central breading range (pgs.108-109). Additional willow flycatcher sites have been identified since the FEIS was completed. While pine martens appear to avoid harvested stands generally, martens appear to prefer gap-type treatments where islands of undisturbed forests are intermingled with harvested areas, as opposed to broad areas selectively harvested.

Even where timber harvesting has an adverse affect, it is but limited duration. "We would not be surprised to find that a brief period (probably less than 5 years) elapses after logging operations before the owls resume foraging in Selected Timber Strata" (CASPO pg. 24). **It is not clear whether this estimation was ever factored into the risk assessment.**

The lack of timber harvesting, on the other hand, can have an adverse effect. For example, the Yosemite Toad habitat has "been degraded and may be decreasing in area as a result of conifer encroachment and livestock grazing" (pg. 124). Conifer encroachment, species conversion and increased stand density all have an effect on species viability that can be corrected through appropriate timber harvesting.

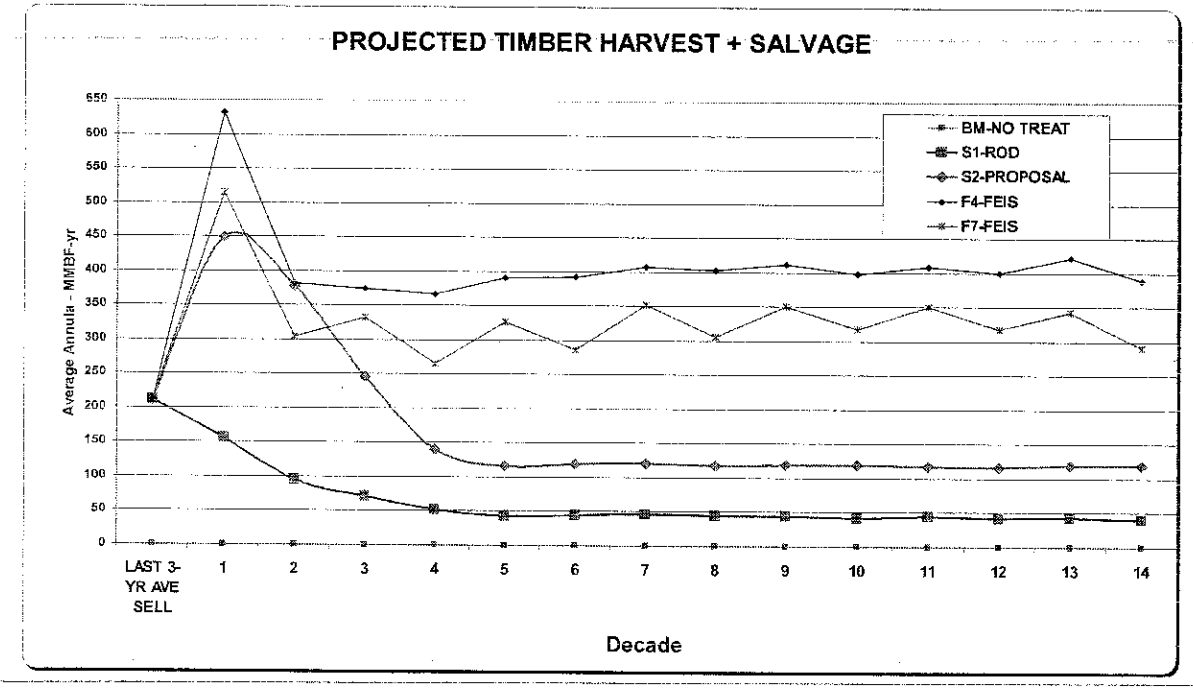
Forest uses, such as timber harvesting, cattle grazing or recreational enjoyment should be exempted from restrictions where the species do not exist or are not likely to exist in the future. For example, "Sites within the Sierra Nevada foothills where the species (red-legged frog) is located are characterized as being intermittent, having largely intact emergent or shoreline vegetation, lacking introduced bullfrogs, and having native rather than introduced fish" (pg. 171). **Restrictions for the benefit of the red-legged frog should not apply to sites with bullfrogs or introduced fish populations.**

The risk associated with the conservative approach is illustrated in the case of the Abronia alpine, and endemic plant on the Inyo National Forest. An original assessment determined that

livestock grazing threatened the species. Grazing was subsequently cancelled. Today, the grazing allotment is no longer under permit, but recent information shows that livestock grazing is not a treat to the species. The assessment was overly-cautious on the side of the species and the rancher lost his permit unnecessarily. How many other forest users will lose their business to overly cautious decisions? How many will be unavailable to assist in ecosystem restoration when the error is detected?

Commercial Forest Products

"Under both Alternatives S1 and S2, only the Big Valley Sustained Yield Unit of the Modoc National Forest produces regulated timber yields… Once the treatment areas are completed over a period of 20 years, timber is only removed as necessary to maintain the same treated acres over time. A consequence of both alternatives will be a significant reduction in the output of sawtimber of a diameter and quality suitable for lumber production in future years. By the fifth decade, timber removals are limited to salvage and minor volumes derived from treatment unit maintenance activities" (pg. 231). "Harvest volumes decline throughout the planning period, most sharply in the second and third decades. Unless substitute timber volumes can be acquired from private lands or imports, it follows that there will be a corresponding drop in wood product industry employment" (pg. 235). Put simply, a sustainable flow of timber will end in 20 years. But according to the DSEIS, timber volume is outside the scope of this SEIS. "However, with the exception of the HFQLG Pilot Project Area, the widespread production of commercial forest products is outside the scope of this SEIS and the Purpose and Need" (Pg. 67). **If the production of commercial forest products is outside the scope of this SEIS, so is the elimination of a timber production program. A program cannot be eliminated without being within the scope of the EIS.** We concur that the production of commercial forest products may be prudently postponed until the health of the forest is returned, but when it is returned, so must the commercial forest products program.



To remain outside the scope, purpose and need, there must be either no significant impact or include an accompanying justification for departure from the law. Consider the Organic Act: "No national forests shall be established except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water follows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States; but it is not the purpose or intent of these provisions, or of the Act, to authorize the inclusion therein of lands more valuable for the mineral therein, or for agricultural purposes, than for forests purposes."

Likewise, the Multiple-use Sustained Yield Act directs the Forest Service to develop and administer the renewable surface resources for sustained yield of products and services. Sustained yield is defined as "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the national forests without impairment of the productivity of the land".

The RPA Statement of Policy adds this directive, that the Forest Service is to manage most of its commercial timber lands in a state of "90 percent of their potential level of growth" in order to achieve its goal of minimizing "the inflationary impacts of wood product prices on the domestic economy and permit a net export of forest products by the year 2030".

The DSEIS correctly acknowledges the CASPO interim guidelines caused timber harvest volumes to decline between 1994 and 1996, the only years associated with the CASPO EA. The EA was premised on the fact that any longer implementation of the CASPO guidelines would have a significant effect and would require an EIS to implement. The Forest Service immediately organized a team to prepare the EIS which, after ten years, has become the proposed SEIS. **Forgotten is the analysis on the effects of declining timber harvest from the pre-CASPO years.** Moreover, the CASPO EA was predicated upon an estimated FYs 93 and 94 sold sawtimber volume of 932 MMBF. Actual sold volume was 610. Volumes continued to decline, having a significant but unaccounted for effect. The proposal estimates a comparative two year volume of 896 MMBF.

The Forest Service Review Team accurately concluded, as we have, "The decision to provide outputs of commercial forest products only coincidentally, while meeting minimal fuels objectives, may be the most important and far reaching decision made in the SNFPA... Removing the objective to provide timber within the concept of sustainability is a significant deviation from past policy" (Management Review and Recommendations pg. 91).

So, one might legitimately ask, what will we do with all the timber growing in the national forests? "Over the last ten years, the net growth in timber inventory has been 7.5 times the volume harvested...growth is projected to outpace harvest under S1 by factors of 12.8, 26.4 and 36.6 for the first, second and third decades respectively and for S2 by factors of 4.7, 6.5 and 11.2. **The Forest Service should establish goals and controls that limit the ceiling on net forest growth.** Given the direct correlation to vegetation density, what of insect and disease treatments between the SPLATs? **When the fire risk is suitably reduced, the Forest Service should focus its attention on areas between the SPLATs.**

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Recreation

Impacts to recreation remain similar to the FEIS. The DSEIS attempts to reduce the impacts by clarifying direction to that Limited Operating Periods apply only to vegetation treatments. However, it negates the direction by stating, "The effects of this change are negligible, as recreation activities that require analysis under NEPA or for permit issuance generally require evaluation for effects to wildlife and recommendations for limited operating periods could be adopted as deemed necessary at the project level (pg. 80). **The effects on recreation can only be limited by selecting an alternative consistent with current recreational management.** The DSEIS concludes only two alternatives would maintain the current level of RVDs; F4 and F7.

Air Quality

According to the DSEIS, the greatest impact to air quality occurs from wildfires. "A comparison of wildfire and prescribed fire emissions (Tables 4.2.6a and 4.2.6b) reveal that wildfire affects on air quality are approximately ten times greater than prescribed" (pg. 169). While the statement is not totally accurate, (the ten times figure is a function of the acres burned, not the emissions per acre which is 22 times greater than prescribed fire), it is correct that reductions in wildfire acres will have the greatest benefit for air quality. Alternative S2 will have only marginal benefits over S1 (459,883 tons versus 509128 tons wildfire and treatments) during the first two decades. However, Alternative 4 would provide additional benefits due to the further decreases in projected wildfire acres.

It is apparent that there has been a correction in the air quality calculations from the FEIS, but no explanation is given. The FEIS calculated the emissions from prescribed fire for Modified 8 (S1) to be 68,880 tons for the first decade, while the DSEIS calculates the emissions for both prescribed fire and mechanical treatments at 22,369. Similarly, the emissions for wildfire are calculated at 247,310 tons in the FEIS and 236,071 tons in the DSEIS. **If the change is justified, it should be explained. Also, emissions for Alternative 4 and 7 should be recalculated under the new method** (see DSEIS pg. 168 and FEIS Volume 2 Chapter 3, pg 344).

SN-837

August 25, 2003

Received

AUG 28 2003

Regional Forester's Office

Jack Blackwell
Regional Forester
US Forest Service
1323 Club Drive
Vallejo, Ca 94592

Dear Jack;

On Thursday August 21, 2003, the Board of Directors for the Regional Council of Rural Counties voted to support the Forest Service development of a Supplemental EIS to the Sierra Nevada Forest Plan Amendment. Additionally, the Regional Council of Rural Counties views the modifications proposed in the Draft SEIS as movement in a positive direction. However, the Board of Directors also believes additional modifications are needed to:

- Expand the wildland urban interface to protect rural communities
- Maintain the historical management objectives of the national forests with short-term emphasis on fire, insect and disease risk reduction
- Expand the treatment authority consistent with the National Fire Plan and pending forest health legislation
- Restore historical vegetative species diversity
- Adopt the favorable elements from other alternatives that would provide the greatest decline in wildfire acres, greatest increase in old forest conditions and the greatest economic benefit

We look forward to continuing to work with the Forest Service in providing the needed modifications through the proposed SEIS. We will follow-up this letter with detailed comments on the Draft SEIS.

Sincerely,

Brent Harrington
President,
Regional Council of Rural Counties

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KENNY C. GUINN
Governor

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WILDLIFE
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I. MICHAEL TURNIPSEED, P.E.
Director
Department of Conservation and Natural Resources

TERRY R. CRAWFORTH
Administrator

SN-856

September 2, 2003

Ms. Heather Elliott
Nevada State Clearinghouse
Budget Division
209 E. Musser, Room 200
Carson City, Nevada 89701

RE: E2000-144, E2001-003, E2001-093 –Sierra Forest Plan

Dear Ms. Elliott:

The Nevada Department of Wildlife appreciates this opportunity to review and comment on the amendments to the Sierra Forest Plan. While Nevada holds the eastern boundary of this amendment, the wise choice of alternatives with appropriate management is essential to the preservation of this valuable resource.

Based upon our review of the nine alternatives of this environmental impact statement, we find the adjustments in livestock grazing, forest thinning treatments and old forest management strategies all have varying degrees of impact on sensitive species. We fail to find adequate measures or priority given to mule deer, a Nevada indicator species, in the assessment of alternatives. From the present list of alternatives, we support F6 as the most meaningful action that covers a broad spectrum of wildlife resources. The intermediate reduction in grazing, proposed acreage of understory thinning, increasing the density of large trees, consideration for pine marten and other actions will initiate better forest practices for the future. We strongly support the use of mechanical treatments and we request additional assurances in future prescribed burns to protect wildlife habitat.

Given the current situation of declining mule deer numbers and distribution in the Sierra Nevada Mountains, we request that the Forest Service consider more mitigation to protect mule deer habitat. We recommend that Alternative S2 and Alternative F6 be combined to provide more protection for larger diameter trees and amphibians in the Forest.

We would appreciate your attention on these matters. If there are any questions or need to provide more detail input, please contact Mr. Shawn Espinosa, Wildlife Biologist, (775) 687-4734.

Sincerely,

Roy Leach
Western Region

REL
Cc. Habitat, Reno
Shawn Espinosa
Jenny Jeffers

KENNY C. GUINN
Governor

STATE OF NEVADA

JOHN P. COMEAUX
Director

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September 4, 2003

Content Analysis Team
Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, Utah 84122-1090

Re: SAI NV #E2003-150

Project: Draft SEIS for the Sierra Nevada Forest Plan Amendment

To the Content Analysis Team:

Enclosed is an additional comment from the Nevada Division of Wildlife that was received after our previous letter to you. Please incorporate this comment into your decision making process. If you have any questions, please contact me at (775) 684-0227.

Sincerely,

Maud Naroll

for Julie A. Butler
Acting Nevada State Clearinghouse Coordinator/SPOC

Enclosure

SN-869

BILL LOCKYER
Attorney General

State of California
DEPARTMENT OF JUSTICE

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September 9, 2003

Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

RE: Comments on Draft Supplemental Environmental Impact Statement for the Sierra Nevada Forest Plan Amendment

This letter contains the comments of the Attorney General of the State of California regarding the United States Forest Service's Draft Supplemental Environmental Impact Statement for the Sierra Nevada Forest Plan Amendment ("Framework").

INTRODUCTION

The Attorney General submits these comments pursuant to his independent authority under the California Constitution, common law, and statutes to represent the public interest. Along with other State agencies, the Attorney General has the power to protect the natural resources of the State from pollution, impairment, or destruction. *See* Cal. Const. art. V, § 13; Cal. Gov. Code §§ 12511, 12600-12; *D'Amico* v. *Board of Medical Examiners*, 11 Cal.3d 1, 14-15 (1974). These comments are made on behalf of the Attorney General and not on behalf of any other California agency or office. As noted more fully below, we also endorse and incorporate by reference the comments submitted separately by the California Resources Agency.

In January 2001, after over a decade of scoping, planning, drafting, scientific review and input, public process, and compromise, the U. S. Forest Service issued its final Sierra Nevada Forest Plan, covering eleven national forests in the Sierras and millions of acres of some of the most scenic and environmentally important land in California ("Framework"). The process required all participants to make difficult choices and significant concessions, but as a result, yielded a landmark management plan balancing competing uses for the Forests and protecting old growth stands, wildlife, and aquatic resources. No one suggested that the Framework was perfect, but it reflected the best thinking of hundreds of dedicated scientists and forest planners, as well as enormous public input.

The Forest Service under the Bush administration affirmed the wisdom and goals of the Framework in rejecting the various appeals that argued for greater consumptive and extractive uses of the National Forests. Its apparent commitment to the Framework was, however, short-lived. Now, little more than two years later, without any meaningful period for implementation,

the Forest Service proposes massive, radical alterations to the Framework, gutting its basic wildlife, habitat, and riparian protections, increasing timber harvesting by three- and four-fold, allowing fragmentation of wildlife corridors that were a centerpiece of the Framework, all in violation of the Administrative Procedure Act ("APA"), 5 U.S.C. §§ 706 *et seq.*, the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321 *et seq.* and other controlling environmental laws. While the Forest Service contends that it is simply "supplementing" the Framework based on "new information," in reality its proposal to revise the Framework ("Plan Revision") reflects a betrayal of the decade-long planning process and an about-face in management of California's Sierra Nevada Forests to the detriment of the State's natural resources. The Forest Service's change in management direction comes without new information, without scientific study, without meaningful evaluation, and without compliance with the basic legal requirements for such a change.

California's Attorney General has participated in the land management planning process for national forests in the Sierras for almost twenty years. We have worked with the Forest Service on the Framework since its inception. It is, therefore, with substantial disappointment that we submit these comments, reflecting our view that the Plan Revision represents an abdication of the Forest Service's legal obligations both with respect to protection of the State's resources and compliance with the basic requirements of law.

COMMENTS

The Attorney General's Office has a long history of participation in national forest planning in California. In the mid- to late- 1980s and early 1990s, this Office submitted extensive comments on a number of proposed forest plans (including Plumas, Sequoia, Tahoe, Modoc, Shasta-Trinity, and Lassen), appealed and intervened in several plans after the plans were approved by the Forest Supervisor, and participated in a seventeen-month mediation process for the Sequoia National Forest land management plan that culminated in an agreement which still governs aspects of management of that forest.

Our involvement in the forest planning process reflects the importance of national forests and forest resources to the people of this State. National forests cover millions of acres in California, including some of the most spectacular and sensitive areas of the Sierra Nevada region. For example, the Sequoia National Forest (and, now, Monument) contains world-renowned groves of Giant Sequoia trees, among the oldest and largest trees in the world; the Tahoe National Forest has among the best and most important freshwater fishing areas in the country; and the Inyo National Forest is among the most-used national forests in the country. The Sierra Nevada region provides habitat for the California spotted owl, as well as several other species that are imperiled. In addition, the Sierra Nevada region, and its national forest land in particular, provides a significant proportion of the State's drinking and agricultural water resources.

Consistent with our long-standing interest and participation in forest planning issues, in

January of 1999, we submitted comments in response to the Notice of Intent ("NOI") to prepare an environmental impact statement ("EIS") for the Framework, which proposed to amend the Land and Resource Management Plans for the Modoc, Lassen, Plumas, Tahoe, Eldorado, Stanislaus, Sequoia, Sierra, and Inyo National Forests in California, the Lake Tahoe Basin Management Unit, and the portion of the Humboldt-Toiyabe National Forest in the Sierra Nevada, and the Regional Guides for the Intermountain and Pacific Southwest Regions.[1] In our comments, we stated our support for the Forest Service's decision to prepare an EIS and the general focus of the EIS as described in the NOI. In addition, we requested that the EIS focus on restoration and protection of old growth portions of the forests and of riparian and aquatic zones, and address the important topics of inventories of resources, monitoring, enforcement and restoration. Our participation has continued through the administrative appeal, in which we supported the Framework, and the Forest Service's most recent decision to review and amend the Framework. We have expressed our view that the review and revision as proposed and pursued by the Forest Service violate the law.[2]

Now, the Forest Service has issued its Draft Supplemental Environmental Impact Statement for the Sierra Nevada Forest Plan Amendment ("DSEIS") for the proposed Plan Revision. As we have noted in previous comment letters, the mere continued existence of dispute and controversy cannot justify the Forest Service's abrupt change in course. The Forest Service's Plan Revision is improper. Even assuming that the Forest Service's proposal to revise the Framework passes substantive legal muster, the DSEIS violates NEPA in multiple aspects. The Forest Service has failed to identify "new information" giving rise to a supplemental EIS, failed in its use of the "supplement" process under NEPA, and failed to discuss the environmental impacts of its radical alternation of the Framework. These deficiencies and others are addressed below.[3]

---

[1]The NOI was published at 63 Fed. Reg. 64,452 (1998).

[2]*See*, for example, Letter from Ken Alex, Supervising Deputy Attorney General, to Steve Clauson, EIS Team Leader, Sierra Nevada Framework Project, January 14, 1999; letter from Janill Richards, Deputy Attorney General, to Dale Bosworth, Chief U.S. Forest Service, July 13, 2001; letter from Janill Richards, Deputy Attorney General, to Dale Bosworth, Chief U.S. Forest Service, March 14, 2003; Letter from Janill Richards, Deputy Attorney General, to Dale Bosworth, Chief U.S. Forest Service, February 6, 2002; letter from Sally Knox, Deputy Attorney General, to Mark Rey Under Secretary for Natural Resources and Environment, December 7, 2001.

[3]Our comments focus on major concepts and are not an exhaustive discussion of all issues.

I. The Forest Service's Decision to Abruptly Reject the Results of a Decade-Long Planning and Decision Making Process is Arbitrary and Capricious under the APA

According to the Forest Service, the Sierra Nevada Framework Plan Record of Decision ("ROD") must be amended due to "changed circumstances and new information" concerning the California spotted owl; aquatic, riparian, and meadow ecosystems; fire and fuels; and the implementation of the Quincy Library Project. DSEIS at 27. In fact, despite its best *post hoc* efforts to justify the evisceration of the original Framework, the Forest Service has failed to identify any substantive changed circumstances or new information that has come to light in the 22 months since the Framework was affirmed on administrative appeal. All of the issues identified by the Forest Service as "new" or "changed" existed during the planning period and were considered by the Forest Service as part of its decision making on the original Framework.

In short, the Forest Service has turned the Framework on its head, while stating to the public that it is merely fine-tuning its previous decision to protect forest health. The Forest Service's reversal is arbitrary and capricious.

A. APA: The Legal Standard

It is well-established that agencies "must be given ample latitude to 'adapt their rules and policies to the demands of changing circumstances.'" *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Ins. Co.*, 463 U.S. 29, 42 (1983) (quoting *Periman Basin Area Rate Cases*, 390 U.S. 747, 784 (1968)). Reappraisal, even if brought about by a change in administration, clearly is not prohibited. *See id.* at 59 (Rehnquist, J., concurring and dissenting). But "[w]hile an agency may properly rely on an 'incumbent administration's views of wise policy to *inform* its judgments,' . . . it may not casually *substitute* those considerations for a rational evaluation of the merit and efficacy of its policies." *National Black Media Coalition v. FCC*, 775 F.2d 342, 305 n.6 (D.C. Cir. 1985) (quoting *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, Inc., 467 U.S. 837 (1984)) (emphasis in original).

Where an agency revokes its former decision, its action "constitutes a reversal of the agency's views as to the proper course." *State Farm*, 463 U.S. at 41.

> A "settled course of behavior embodies the agency's informed judgment that, by pursuing that course, it will carry out the policies committed to it by Congress. There is, then, at least a presumption that those policies will be carried out best if the settled rule is adhered to."

Id. (quoting *Atchison, Topeka & Santa Fe Railroad Co. v. Wichita Board of Trade*, 412 U.S. 800, 807-808 (1973)). In light of this presumption, "[a]n agency changing its course . . . is obligated to supply a reasoned analysis for the change beyond which may be required when an agency does not act in the first instance." *Id.* at 42.

This is more than an exercise in "minimum rationality." *Id.* at 43, n.9. An agency may not, for example, "merely recite the terms 'substantial uncertainty' as a justification for its actions." *Id.* at 52. If an absence of evidence plays a role in the agency's decision, "one aspect of that explanation would be a justification for rescinding the regulation before engaging in a search for further evidence." *Id.* "The agency must explain the evidence which is available, and must offer a 'rational connection between the facts found and the choice made.'" *Id.* (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)). Failure to do so renders the agency's action arbitrary and capricious. *Id.* at 43.[4]

Here, the Forest Service has rejected not only the Framework, a culmination of more than a decade of public participation, but also the studies, reports and regulations that preceded and supported the Framework, including the 1993 California Spotted Owl Interim Guidelines ("CASPO"). To this point, the cautious approach adopted in CASPO and the Framework has been accepted as necessary to protecting forest ecosystems in the long term. As discussed below, the Forest Service has failed to supply a reasoned analysis to support its dramatic departure from this settled approach or its failure to obtain additional evidence before doing so.

B. None of the Purported "New Information" or "Changed Circumstances" Justify the Forest Service's Abrupt About-Face

1. Spotted Owl

According to the Forest Service, the following new information and changed circumstances compelled the proposed Revision Plan with respect to the spotted owl:

a. recent spotted owl studies show a "pulse in reproduction" not considered in the original Framework Plan. DSEIS at 28;
b. California state law requires private industrial timberlands to be managed in a manner that considers owl habitat. DSEIS at 29;
c. The U.S. Fish and Wildlife Service declined to list the California spotted owl as an endangered species. DSEIS at 29.

a. U.S. Fish and Wildlife Service's Listing Decision

[4]In *State Farm*, the National Highway Traffic and Safety Administration attempted to justify its rescission of a passive restraint rule passed under the previous administration by stating that there was no longer a basis for reliably predicting that the standard would lead to any significant increase use of restraints, and the rule would require approximately $1 billion to implement. Just four years previously, the agency had predicted significant safety benefits. *Id.* at 38-39. The Court held the rescission arbitrary and capricious because the agency gave no consideration to requiring airbags or other technology that could not be circumvented by consumers. *Id.* at 51, 55-56.

The Forest Service's use as "new information" of the U.S. Fish and Wildlife Service ("USFWS") determination not to list the California spotted owl as threatened or endangered under the Endangered Species Act ("ESA") is disingenuous. The USFWS decision not to list the California spotted owl is *based explicitly on the protections for the owl set forth in the Record of Decision for the Framework. See* USFWS listing decision, 68 Fed. Reg. 7,604 (2003). In fact, the USFWS decision explicitly states that it must revisit the listing decision if the Forest Service changes the Framework:

> The [Framework] addresses five problem areas: old forest ecosystems and associated species; aquatic, riparian, and meadow ecosystems, and associated species; fire and fuels; noxious weeds; and lower westside hardwood ecosystems. The [Framework] included a conservation strategy for California spotted owls, which replaced the interim guidelines.
>
> Subsequent to the establishment of management direction by the Record of Decision of the [Framework], Region 5 of the Forest Service has undertaken two efforts that may result in changes in the anticipated impacts of the [Framework]. The first is a management review of the [Framework], and the second is planning for implementation of an Administrative Study on the Lassen and Plumas National Forests that would evaluate the effects of extensive fuels treatments on the California spotted owl. As of yet, neither of these efforts have formally established management direction, so their potential effects are not included in the assessment of threats to the California spotted owl under this 12-month finding. However, because the outcome of each of these efforts could substantially affect California spotted owls, we will monitor the development of management direction, offer scientific assistance, and review the effects at a later date if necessary.

68 Fed. Reg. 7604 (Feb. 14, 2003) (emphasis added).

In addition, the USFWS listing decision identifies the fact that all Framework Standards and Guidelines will be implemented in the Quincy Project area. The Revision Plan changes those Standards and Guidelines and explicitly exempts the Quincy Project from the environmental protection aspects of the Framework.

The USFWS listing decision is not new information upon which the Forest Service can rely for a change in the Framework. It is quite clearly and explicitly the opposite. The changes proposed by the Revision Plan are dramatically new information which the USFWS must consider in reopening the listing decision. Changes in canopy cover, elimination of Standards and Guidelines setting minimum protection for owl habitat, changes to timber harvesting tree size minimums, and the inclusion of the full-scale Quincy project in the middle of prime spotted owl habitat, as set forth in the Revision Plan, could each impact the listing decision. By citing the USFWS decision not to list the spotted owl, the Forest Service misapplies the decision, mischaracterizes it as new information, and fails to meet its legal obligations under the Endangered Species Act, the National Forest Management Act, and NEPA. In no way is the

listing decision new information forming the basis for a principled change in management direction and a radical change in the Framework.

b. California State Law Has Not Changed

The Forest Service contends that California law requiring consideration of owl habitat by private forest land holders is a new circumstance giving rise to the need to amend the Framework. As California's chief law officer, the Attorney General is aware of no such change in California state laws or regulations. In fact, the USFWS spotted owl listing decision sets forth a good summary of California state law requirements, all of which were in place at the time the Framework was approved. *See* 68 Fed. Reg. 7,604-06 (2003). The legal requirements are not new, and it is difficult to understand to what the Forest Service refers on this issue.

c. Reproductive Pulse

"As one of the most intensively studied birds in the United States, the spotted owl has been the focus of research for well over two decades." USFWS listing decision, 68 Fed. Reg. 7,590 (2003). "Several analytical methods have been applied to the analysis of population trend in spotted owls, and each method carries certain strengths and weaknesses. Thus, to best understand population trend, it is important to concurrently assess the results of all methods instead of relying on a single analytical approach." *Id.* at 7,590-91. "There is no definitive evidence that the population [of California spotted owls] is decreasing across its range, and various analytical results of the individual study areas are not wholly supportive of conclusions regarding declines in any given study area." *Id.* at 7,595.

The Forest Service's observation of a spotted owl "reproductive pulse" must be placed in this context. The "pulse" – an apparent increase in reproduction – must be evaluated in the context of decades of research and observations that includes areas of decline as well as the USFWS's inability to determine, even with decades of information, the overall population trend for the owl. The DSEIS fails to analyze how or whether the observed pulse affects the calculation of the finite rate of population change. Additional information concerning reproduction during the past few months is certainly relevant for consideration, but only in the context of the decades of information and the intensive study in areas of the national forests. A short-term reproductive pulse without context or analysis, certainly does not form the basis for radical change in management and habitat protection.

2. Aquatic, Riparian, and Meadow Ecosystems

In the DSEIS, the Forest Service states that new information is "available about the likely reductions in grazing activity that will be caused by the existing standards and guidelines for

meadows and meadow-associated species" – specifically, the endangered willow flycatcher[5] and candidate species Yosemite toad. DSEIS at 29. (The willow flycatcher and Yosemite toad are also Forest Service sensitive species. *See* FEIS at vol. 3, ch. 3, pt. 4.4, pp. 1, 143, 218.) The agency further states that "there is new information to consider about the population status and distribution of the Yosemite toad and willow flycatcher gained from two years of field surveys . . . . This information supports the need to consider local data and conditions when planning projects in associated habitats." DSEIS at 3. According to the Forest Service, it has proposed changes to the Framework "to allow more economic benefits to be retained while continuing to minimize the risks to sensitive species." *Id.*

In plain language, the Forest Service has now decided to favor continued grazing in the habitat of the willow flycatcher, Yosemite toad, and other species associated with sensitive aquatic ecosystems, contending that new information reasonably allows the agency to re-strike the balance. Its claims to "new information" are, however, misleading and disingenuous.

The Forest Service is correct in stating that the Framework's Standards and Guidelines may reduce the amount of grazing allowed in the Sierra national forests. The Forest Service, however, is clearly wrong in suggesting that this is new or changed information. The Forest Service was fully aware when it approved the Framework that the grazing Standards and Guidelines would reduce grazing opportunities. As Regional Forest Bradley E. Powell acknowledged in the ROD, "[t]he effect of habitat and ecosystem conservation measures are expected to reduce the number of animal unit months (AUMs) in the Sierra Nevada by approximately 83,000 over the next ten years[,]" though he noted that "[o]ne third of these reductions were already scheduled to occur under existing plans and polices." ROD at p. 28. Similarly, in the FEIS, the Forest Service pointed out that the "conservative standards" selected in the Framework would remain in effect until a site-specific analysis "could be completed to determine the condition of the range"; "since it would take many years to complete the analysis on several hundred allotments, it is assumed that many permittee would give up their permits." FEIS, vol. 1, Summary at p. 36; *see also* FEIS, vol.1, ch. 2, p. 194; FEIS, vol. 2, ch. 3, pt. 5.3, pp. 399-416. The Forest Service's new position is no more than a change in view based on a desire to increase grazing opportunities and has nothing to do with new or changed information about impacts to permittees.

The Forest Service's argument to increase grazing based on "new information" about population status and distribution of the willow flycatcher and Yosemite toad is similarly flawed. In the FEIS, the Forest Service noted the precarious position of these species. "[T]he willow flycatcher population in the Sierra Nevada is known to have dramatically declined after 1940[,]" and in the last decade, the Yosemite toad has "declined substantially or disappeared from over 50% of the sites where it was known historically." FEIS, vol. 3, ch. 3, pt. 4.4, pp. 162, 218. In

[5]The willowfly catcher is listed by the State as endangered; one subspecies, the southwestern willow flycatcher, is listed by the federal government as endangered. FEIS, vol. 3, ch. 3, pt. 4.4, p. 143.

the FEIS, the Forest Service found that grazing, among other activities and factors, likely had adverse direct and indirect impacts on these species. *See, e.g.*, FEIS, vol. 3, ch. 3, pt. 4.4, pp. 146-147, 152-157, 218-221. The Forest Service's conclusions were reiterated in the Biological Assessment, *see, e.g.*, Biological Assessment at pp. 75, 77, 79-80 (willow flycather), and affirmed in the FS's January 11, 2001 Biological Opinion Biological Opinion (1/11/01) at pp. 55, 79, 104-109, 119, 141-143, 161, 163-164.

In the FEIS, the Forest Service found that grazing, unlike some other risk factors – *e.g.*, severe weather or disease outbreak – was in control of the Forest Service; accordingly, it decided to reduce this specific risk in order to reduce overall risk. *See, e.g.*, FEIS, vol. 3, ch. 3, pt. 4.4, p. 162 (willow flycatcher). The Forest Service acknowledged that there were gaps in the data concerning current populations of the willow flycatcher and Yosemite toad and the impacts of grazing to these species. *See, e.g.*, FEIS, vol. 3, ch. 3, pt. 4.4, pp. 155, 180, 220. It reasonably resolved to address this issue by requiring monitoring and reassessment of management practices based on the information thereby acquired. FEIS, vol. 3, ch. 3, pt. 4.4, p. 180-181.

Two years after it made these findings, the Forest Service has reversed course, minimizing the risk that grazing poses to these species and rejecting the "cautious approach" it took in the Framework. Now the Forest Service emphasizes the certainty that grazing will be impacted and suggests that impacts to aquatic species, in contrast, are uncertain. Management Review and Recommendations ("MR&Rs") at 61. For the willow flycatcher, the Review Team opines that "significant restrictions were placed on grazing to mitigate questionable and, in our judgment, relatively minor risks." *Id.* at 67. And for the Yosemite toad, the Review Team advises that "by attempting to eliminate all risks from grazing, the ROD used an overly cautious approach . . . ." *Id.* at 71.

A review of the materials cited by the Forest Service in the DSEIS shows that there is in fact little new information, and none of the information establishes that grazing does not pose a risk to these species. For example, the DSEIS states summarily that the "recently completed conservation assessment for the willow flycatcher includes updated information about the status of the species and possible refinements to managing and restoring suitable habitat." While the 2003 "conservation assessment" is mentioned in passing in the DSEIS, *see, e.g.*, pp. 2, 3, 29 (references to Bombay and Morrison 2003), and is cited in the references DSEIS, p. 361, how the document and its findings support the Forest Service's proposal to increase grazing in willow flycatcher habitat is not discussed. Indeed, the cites to Bombay and Morrison 2003 appear to undermine, rather than support, the Forest Service's proposal. In the DSEIS, Bombay and Morrison 2003 is cited for the proposition that there is an "alarming" downward trend in the number of willow flycatcher territories in the north central Sierra and that there has been a recent "increase in cowbird parasitism" of this species. DSEIS at pp. 116-117. The conservation assessment specifically discusses livestock grazing as one of several activities (including water developments, recreation and pesticide use) that could directly impact willow flycatchers. Bombay and Morrison 2003 at p. 36. Specifically, these authors state that "[c]urrent grazing schemes that allow grazing within willow flycatcher breeding habitat may upset flycatcher nests . . ., alter willow habitat . . ., facilitate cowbird parasitism, and exacerbate chronic conditions

(gullies)." *Id.* at p. 37. Further, impacts from grazing are not limited to those from past activities; "[p]reliminary results from grazing studies in the Sierra Nevada indicate that there are impacts from contemporary livestock grazing . . . ." *Id.*[6] Plainly, the conservation assessment in no way supports the Forest Service's proposal to continue the grazing status quo.

The Forest Service also states, somewhat cryptically, that new information "supports the need to consider local data and conditions . . . ." DSEIS at 29. The Forest Service's argument cannot be that allocation-specific data is not relevant under the existing Framework. As discussed, the Framework requires extensive monitoring and collection of data which, through adaptive management, inform future management decisions. In truth, the argument appears to be a restatement of what the Review Team euphemistically refers to as "flexibility" – or reservation of local management control. MR&Rs at 61. In the Framework, the Forest Service specifically rejected an emphasis on local management control as ill-advised. In the FEIS, the Forest Service found that where "bioregional standards . . . default to local management control, they may be widely interpreted and will have . . . higher potential risks for focal species." FEIS, vol. 3, ch. 3, pt. 4.4, p. 163. The Forest Service has not here explained why its previous decision was in error and has failed to justify its reversal on this fundamental issue.

For these reasons, the Forest Service's proposal to risk the long-term health of aquatic ecosystems and survival and recovery of their associated species in order to benefit grazing interests is arbitrary and capricious.

3. Fire and Fuels

According to the Forest Service, the following new information and changed circumstances compelled the proposed Revision Plan with respect to fire and fuels:

a. The National Fire Plan was issued, and changes need to be made to the Framework to make it consistent with the Fire Plan. DSEIS at 30;
b. There is a need to make more money from timber sales to allow more fire hazard treatments. DSEIS at 30;
c. Framework imposed Standards and Guidelines are too restrictive to ensure sufficient fire hazard treatment. DSEIS at 30.

a. National Fire Plan

According to the Forest Service, the original Framework is consistent with the National Forest Plan. In response to an administrative appeal of the Framework, the Chief of the Forest Service specifically stated,

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[6]Not surprisingly, the DSEIS does not discuss these aspects of the conservation assessment.

> [A]fter my review of the ROD, FEIS and the Administrative Record, I find that the standards and guidelines for fuels treatments are consistent with the National Fire Plan and the Cohesive Strategy. The standards and guidelines offer managers broad discretion in implementation of fuels reduction projects. They apply to the entire forest and allow managers to set priorities in each land allocation, be it mapped or unmapped. The scale and pace of fuel treatments comply with national direction and strategy.

Appeal Decision at A-12. The Forest Service cannot now contend, just months after its appeal decision, that the same National Fire Plan is inconsistent with the same Framework. Even current Regional Forester Jack Blackwell recently admitted that "the FEIS is pretty good in conforming to the NTP [National Fire Plan] . . . ." Notes of Meeting with CA Spotted Owl Scientists, June 28, 2003 at p. 4. Clearly, this is a change in policy rather than circumstance or information.

b. Insufficient Funds

The Forest Service identifies the lack of funds available to do the number of fuel treatments recommended as a new or changed circumstance requiring a change in direction. It then determines that timber harvesting is the manner in which to increase funding for fuel treatment. In fact, the lack of funds is not new. The Forest Service faces a longstanding shortage of funds to do all of its proposed fuel reduction work, its watershed maintenance and restoration, its monitoring, or a whole host of other items, usually related to ecosystem health. The information and issue are is not new and were considered in the Framework. In addition, while the Forest Service determined for purposes of the Revision that increased funds from increased timber harvesting is to be spent on fuel treatments, it could just as easily be spent on watershed improvement or monitoring or other underfunded programs on the forests. It could also be spent dealing with problems resulting from increased sedimentation caused by increased timber harvesting and road building. The DSEIS discusses none of these tradeoffs. With respect, insufficient funds – an on-going issue on all national forests – does not amount to new information or changed circumstances.

c. Standards and Guidelines

Once again the Forest Service seeks to alter the Standards and Guidelines approved earlier this year, not based on new information or changed circumstances, but because of a change in management direction. In this instance, the Forest Service actually acknowledges the point. It states in the DSEIS that "[t]he potential for this problem was recognized in the FEIS with a statement that 'Modified 8 would have stand level structural requirements that could preclude full implementation of the fuels strategy.'" DSEIS at 30. By so stating, the Forest Service recognizes that the issue was identified and considered in the Framework process and was part of the information available when the Framework was approved.

4. Implementation of Quincy Library Project

According to the Forest Service, the following new information and changed circumstances compelled the proposed Revision Plan with respect to the implementation of the Quincy Library Project:

a. The Framework Plan prevents the Project from proceeding in a meaningful manner. DSEIS at 31;
b. The Quincy "goal of commodity production" was "compromised" by the original Framework Plan. DSEIS at 31.

The Forest Service presents no new information with respect to Quincy. The Framework decision was made knowing that it would likely preclude full implementation of Quincy. The Quincy law recognizes that the Framework Plan and other Forest Service actions could limit implementation of Quincy. This is, plain and simple, a change in management direction, a political decision with no basis in science. In fact, as discussed in more detail below, the change calls into question the determination not to list the spotted owl as a threatened or endangered species under the Endangered Species Act, raises issues concerning species viability under the National Forest Management Act, and violates NEPA by failing to discuss the environmental impacts of the management change on the owl, the habitat, and the related resources.

5. General Inability to Implement the Plan

The Forest Service states that, based on surveys of district rangers, it has determined that the Framework creates substantial problems for implementation and too severely limits flexibility at the local level. DSEIS at 28. The following chart reflects the projects implemented – and not implemented – under the Framework:

AS OF SEPT. 2002

Ranger Districts that had not implemented projects

6B, 6D, 3B, 11B, 11A, 2C, 1B, 2B, 3A, 3C, 9C, 9B, 8B, 7A, 4D, 4B, 4E

Ranger Districts that had implemented projects	# Modified Pre-Framework Projects	# Post-Framework Projects	Post-Framework Project Issues
6A	3	0	
6C	1	0	
2A	4	0	
1A	1	0	
9D	2	0	
9A (several small projects)	?	?	canopy cover requirement no problem, but some difficulties w/ RCA and owl/goshawk survey costs
8A	several	0	
7D	3	0	
7C	several	several	problems w/ PAC fuel reduction limits, SPLAT

			implementation, diameter limits, lwd requirements, and funding
7B	several	0	
4A	several	0	
4C	several	1	mostly smooth; problem interpreting/applying 20" dbh limit for projects outside of old forest emphasis areas

key:
1. Modoc
   - A. Devils Garden
   - B. Warner Mountain
   - C. Big Valley
2. Lassen
   - A. Hat Creek
   - B. Almanor
   - C. Eagle Lake
3. Plumas
   - A. Mt. Hough
   - B. Beckworth
   - C. Feather River
4. Tahoe
   - A. Downieville
   - B. Truckee
   - C. Sierraville
   - D. Forest Hill
   - E. Nevada City
5. LTBMU
6. Eldorado
   - A. Placerville
   - B. Georgetown
   - C. Amador
   - D. Pacific
   - E. Eldorado "I" Team
7. Stanislaus
   - A. Calaveras
   - B. Summit
   - C. Miwok
   - D. Groveland
8. Sierra
   - A. Bass Lake
   - B. High Sierra
9. Sequoia
   - A. Hume Lake
   - B. Tule River - Hot Springs
   - C. Greenhorn
   - D. Cannell Meadow
10. Inyo
    - A. Mammoth/Lee Vining
    - B. White Mtn/Mt. Whitney
11. Humboldt -Toiyabe
    - A. Carson
    - B. Bridgeport

A full 17 of the 29 district ranger stations have implemented no projects whatsoever under the Framework. Of the 12 district ranger stations that have implemented projects under the Framework, only one project (other than at Stanislaus–MiWok) was proposed and implemented under the Framework. All other projects were proposed before the Framework took effect and modified to proceed after the Framework was approved. In the words of the Forest Supervisor for the Tahoe National Forest, "[w]e can't show you where it didn't work because we didn't go very far . . . ." Notes of Meeting with CA Spotted Owl Scientists, August 7, 2003 at p. 11. The Forest Service cannot reasonably argue that these projects reflect a meaningful attempt to implement the Framework. Instead, it appears that the Forest Service determined not to implement the Framework and not give the Framework any chance of success. The number of projects implemented under the Framework does not give rise to "new information." From this data set, the Forest Service cannot determine whether the Framework can be implemented or not.[7]

Additionally, it is not surprising and not new that the district rangers (1) are resistant of change, and (2) want more, rather than less, flexibility for local project implementation. It is hard to imagine that district rangers would not have such a reaction. District rangers expressed

[7]It is interesting to note that with respect to the Quincy Project, the Forest Service states that it was given only 17 months before it was superceded by the original Framework, and that, as a result "the opportunity to fully test the original design for [the Project] is foregone." Framework Review at 54. Apparently, the Forest Service cannot evaluate fully the Quincy Project in 17 months but can make its determination about the far larger and more complex Framework in less than 12.

similar views during the Framework process. *See, e.g.*, FEIS Administrative Record ("AR") 1126, 1129, 45; e-mail 2/21/03 from D. Yasuda, Assistant Resource Officer/Wildlife Biologist to Sam Wilbanks, FS R5 ("a lot of the concern from Rangers collectively seems to be based upon the hypothetical rather than through IDTs trying to actually work on a piece of new ground and apply the ROD from scratch"). Nothing in the district ranger letters reflects new information.

Third, a careful reading of the district ranger letters reflects that in conjunction with concerns about local flexibility and normal resistance to change, the rangers identify economic issues as the most basic issue. There is not enough money to fully implement the Framework. This is not new information and it should not be presented as such. It led the Forest Service in its proposed Revision Plan to increase timber harvesting in order to raise funds for fuel load reductions and other action on the Forests. In fact, there are any number of other ways to fund fuel treatments and other projects, none of which (1) impact the environmental health of the Forests and (2) are discussed in the DSEIS as alternatives (or in any other way). Certainly, the Forest Service was aware of its economic issues and funding problems when it approved the original Framework. Once again, the Forest Service has failed to identify new information or changed circumstances.

II. The Forest Service's DSEIS is Misleading and Fails to Fully and Adequately Disclose the Nature of the Revision Plan and its Impacts in Violation of NEPA

A. NEPA: Legal Standard

The purpose of NEPA is to ensure that the agency is well informed before it takes action that may impact the environment, and to involve the public and other government agencies in the decision making process. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 371 (1989). Environmental documents, *e.g.*, the EISs and SEISs, are central to NEPA's purposes. Accordingly, such documents must contain "a reasonable, good faith and objective presentation" of the issues. *Animal Defense Council v. Hodel*, 840 F.2d 1432, 1439 (9th Cir. 1988) (internal quotation omitted). "[T]he comprehensive "hard look" mandated by Congress and required by the statute . . . must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made." *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000).

As discussed below, the Forest Service excluded the public from the decision making process by failing to engage in scoping. Moreover, the Forest Service is attempting to cloak its wholesale revision of the Framework as a mere fine-tuning, thereby misleading the public. Accordingly, the DSEIS does not satisfy the purposes of NEPA.

B. The Forest Service Inexplicably Failed to Engage in Scoping for the Revision Plan

For unknown reasons, the Forest Service chose to draft and issue the proposed Revision Plan and DSEIS without a scoping process under NEPA. As the Forest Service Handbook states, scoping is "an integral part of environmental analysis." Forest Service Handbook, § 1908.15, ¶

11. That point is underlined here by the Forest Service's failure to evaluate and analyze a meaningful range of alternatives to the Revision Plan. (See subsection D.2. below). The California Resource Agency's on-going request, for example, that the Forest Service seriously consider and evaluate particular adaptive management approaches was ignored. A public scoping process would have led the Forest Service to pay closer attention to alternatives and concerns of the public. As discussed extensively below, the Revision Plan radically alters the Framework; it does not simply supplement it. Under these circumstances, the issuance of an environmental document without a scoping process is a serious failure.

C. The Revision Plan Is A Wholly New Project Requiring A New EIS

The NEPA regulations require an agency to supplement a previously-prepared EIS where "the agency makes substantial changes in the proposed action . . . ." 40 C.F.R.§ 1502.9(c)(1)(i). The Framework became final in January 2001 and was affirmed on appeal in November 2001. As of that date, it was in no respect "proposed"; as a regulatory decision, there was nothing left for the Forest Service to do but implement the Framework. Accordingly, if the Forest Service now proposes to reverse course, jettisoning the "cautious approach" adopted in the Framework and its supporting EIS and adding consumptive uses as an additional purpose and need, it cannot simply supplement the previous document, but must prepare a new EIS, justifying its abrupt about-face. The Plan Revision includes new issues, including timber harvesting for purposes of project funding and grazing to protect the industry. These and other issues have not been subject to scoping.

A new EIS is required not only by the language of the regulations, but is consistent with its purposes. By utilizing the SEIS process, the Forest Service is misleading the public that the Plan Revision is a mere fine-tuning of the Framework. It is not, and the Forest Service should be required to disclose in good faith the scope and magnitude of the changes it proposes to the current management plan.

D. Even if a DSEIS Is Procedurally Appropriate for the Revision Plan, the DSEIS Prepared Is Inadequate

Even if the Forest Service could, consistent with NEPA, jettison the Framework through the SEIS process, the document that the Forest Service has prepared fails to fully and fairly disclose the Revision Plan's attributes and potential impacts. As discussed below, the SEIS fails to disclose and analyze the nature and purpose of the Revision Plan, alternatives to the Revision Plan and their consequences.

1. The DSEIS Does Not Contain an Adequate Project Description

The FEIS focused on five problem areas – addressing these areas was the FEIS's purpose and need. FEIS, vol. 1, Summary at p. 3. The DSEIS for the Revision Plan in effect adds new "purposes and needs" – *e.g.*, forest products extraction as source of funding for projects and the

need to maintain grazing. These new purposes and needs are not disclosed or properly discussed in the DSEIS.

2. The DSEIS Does Not Discuss A Reasonable Range of Alternatives or Compare the Predicted Impacts of Those Alternatives

The DSEIS fails to evaluate an adequate range of alternatives and rejects reasonable alternatives that deserve consideration. Although the DSEIS purports to analyze ten alternatives (DSEIS at 6), in reality, the SEIS seriously considers only two: S1 (the no action alternative) and S2 (the proposed action) and rejects or fails to consider other reasonable alternatives which do not propose as dramatic a revision of the existing Framework FEIS, but which still meet the Forest Service's purpose and need.[8]

NEPA requires that federal agencies prepare a detailed statement disclosing the environmental impact of a proposed action and present alternatives to the proposed action. 42 U.S.C. § 4332(c). The alternatives must "present the environmental impacts of the proposal and the alternatives in comparative form [in order to] sharply defin[e] the issue," and are considered "the heart of the" EIS. *See* 40 C.F.R. § 1502.14. A fundamental goal of the NEPA process is to "identify and assess reasonable alternatives to proposed actions" in order to "avoid or minimize adverse impacts on the environment." 40 C.F.R. § 1500.2(e); *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1310 (1990) (Forest Service required to analyze alternative that would have yielded less commercial timber). Finally, NEPA requires agencies "to the fullest extent possible" to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E).

While an agency is not required to analyze alternatives that do not meet its proposed goal, an agency cannot narrowly define its purpose in order to exclude reasonable alternatives. *Border Power Plant Working Group v. Department of Energy*, 260 F. Supp. 2d 997, 1030 (S.D. Cal. 2003) (DOE improperly confined scope of its action and thus failed to consider reasonable alternatives that considered actual nature of project). In addition, an EIS is rendered inadequate by the existence of a viable but unexamined alternative. *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1520 (9th Cir. 1992)("an agency must look at every reasonable alternative, within the range dictated by the nature and scope of the proposed action"); *Blue Mountains Biodiversity Project v. U.S. Forest Service*, 229 F. Supp 2d 1140, 1147 (D. Or. 2002), *Oregon Natural Desert Association v. Singleton*, 47 F. Supp. 2d 1182, 1195 (D. Or. 1998); *League of Wilderness Defenders v. Marquis-Brong*, 259 F. Supp 2d 1115, 1124 (D. Or. 2003) (EA unreasonably excluded consideration of any alternative that provided for restoration of the burned area without salvage logging).

[8] Alternative S3 is not given comparable level of scrutiny throughout the DSEIS contrary to CEQ guidance. *See* 40 C.F.R. § 1502.14(a). It is obvious from a review of the document, that only S1 and S2 were given any serious consideration.

The alternatives considered in the FEIS are, for the most part, irrelevant to the potential impacts of the project proposed by the Plan Revision. The Forest Service must evaluate alternatives *to the Revision*, based on the purposes identified in the DSEIS. In the DSEIS, the Forest Service's stated purpose and need is: "to adjust existing management direction to better achieve the goals of the SNFPA." DSEIS at 2. Although this purpose is articulated broadly, and despite the fact that the original FEIS evaluated nine alternatives in detail, the supplemental EIS only analyzes essentially one – other than the no action proposal. The Forest Service merely sets up a straw man and knocks it down, allowing the public only the choice between no action and the Forest Service's preferred action. This is essentially no choice at all. *See Oregon Natural Desert Association v. Singleton*, 47 F. Supp. 2d 1182, 1195 (D. Or. 1998) (court held BLM did not take "hard look" at its Owyhee River Plan EA where it evaluated only alternatives at odds with the Wild and Scenic Rivers Act policy objectives, its preferred alternative and a "no action" alternative). Incorporating by reference the alternatives considered in the prior NEPA process which resulted in the Framework FEIS, (DSEIS, at 6, 38), the Forest Service improperly avoids taking a comprehensive look at these forest-wide "changed" circumstances.

Thus, the Forest Service could have considered any number of alternatives that address the purposes identified by the DSEIS. For example, the DSEIS identifies insufficient funds for fuel treatments as a basis for the Revision. The Forest Service did not consider sources of funding other than increased timber harvesting and cattle grazing. It could seek a special appropriation from Congress in conjunction with the Healthy Forests Initiative; it could re-prioritize other funding; it could alter its fuel treatment program; it could seek foundation and state funding. The DSEIS identifies the need for local flexibility in implementing projects as a new or changed condition and proposes eliminating Standards and Guidelines. It does not consider, for example, addressing the issue through adaptive management; through a specific process for obtaining relief from particular Standards and Guidelines on a project basis, or through a pilot project for a section of the Sierras. For each and every issue the Forest Service identifies as "new" or "changed circumstance," and for the purposes of the Plan Revision identified more broadly, the Forest Service needs to consider alternatives that could achieve the same goals with different – often lesser – environmental consequences in order to give the reader a real sense of the environmental tradeoffs and impacts of the Plan Revision. The Forest Service has completely failed to do so. [9]

The existing alternatives discussion, even on its own terms, falls far short. In addition to the fact that the FEIS alternatives are essentially irrelevant to the impacts of the proposed Plan Revision, the discussion of alternatives is confusing and uninformative. For example, because alternatives F2 through F8 were carried over from the Framework FEIS, they were not analyzed using the new analysis, assumptions, data and methodology applied in this DSEIS. As a result,

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[9] The Forest Service's decision not to receive public input on its scoping process directly contributes to the lack of meaningful alternatives in the DSEIS. Through these comments the California Attorney General is alerting the agency to the existence of viable, yet unexamined alternatives. *See City of Angoon v. Hodel*, 803 F.2d 1016, 1021-1022 (9th Cir. 1986).

only S1 and S2 were analyzed in light of the information identified as "new" (forest inventories, PAC boundaries, WUI boundaries, and completed treatment units) and "new"methodologies (SPLAT locations, watershed analysis, and treatment costs and values). DSEIS at 304-05. In addition, because the DSEIS uses a different method of comparison for S1 through S3 for impacts of grazing, any comparison to the original alternatives in the FEIS is meaningless. DSEIS at 77-78. Further, the Forest Service compares S1 to S2, but considers F1 through F8 separately. To make matters worse, the Forest Service has apparently changed its basis of comparison from the FEIS to the DSEIS. For example, the "effect of wildfire" table appears in both documents. In the DSEIS, Alternative S1 will result in only a 2% decrease in annual wildfire in the first decade to the fifth decade. DSEIS at 23. In the FEIS, Mod 8 (the identical alternative to DSEIS S1), is predicted to result in a 15% decrease. Similar inconsistencies exist for forest products tables (which use different time frames, making comparison extremely difficult) and economic impacts, which lists different numbers of jobs for the same alternatives in the different documents. These inconsistencies call into question the entire analysis.

3. The DSEIS Fails to Analyze the Impacts of and Justify the Revision Plan's Fundamental Shift in Addressing Uncertainty

The proposed Revision Plan radically alters the use of the concepts of "risk" and "uncertainty" from their use in the original Framework and FEIS. In the Framework, the Forest Service adopted a cautious approach, which seeks to avoid short-term losses to irreplaceable species and habitat while working toward long-term recovery and improvement. In the DSEIS, in contrast, the Forest Service has elected to favor long-term, hypothetical gains over certain short-term losses. The Forest Service now argues that decades in the future, species such as the California spotted owl will benefit from increased timber harvesting and other actions. Under the DSEIS, the Forest Service proposes to proceed with the assumption that risk and uncertainty are equivalent to a determination of no harm. But the DSEIS contains no analysis of the potential impacts of its rejection of the cautious approach. This change profoundly alters the Framework's relation to the environment, and the Forest Service's failure to address the impacts of the change violates the basic tenets of NEPA.

Nor has the Forest Service justified its rejection of the cautious approach adopted in the Framework. In fact, the Forest Service fails to mention that the longer term of the projection, the less reliable is the result. *See, e.g.*, M.A. Bergman, et al., *Risk Assessment in Conservation Biology*, 3-4 (1993) (discussing need for short-term evaluations and concerns about long-term projections); S.R. Beissinger and D.R. McCullough, *Population Viability Analysis*, 71-72 (2002) (time frame of evaluation is important). Because of increased uncertainty in long-term modeling, in the area of environmental protection, the cautious approach is generally-accepted. *See, e.g.*, K. Shrader-Frechette, "Methodological Rules for Four Classes of Scientific Uncertainty," *Uncertainty and Environmental Problem Solving*, 20 (1996) ("[I]n situations of statistical uncertainty affecting human and environmental well-being, we should be reluctant not to posit effects such as serious harm. Therefore, in a situation of statistical uncertainty in which we cannot adequately assess effects, we should place the burden of proof on the persons who create these potentially adverse effects. . . .") Accordingly, the Forest Service's rejection of the cautious

approach is not consistent with "the best available science . . . ." *See* 36 C.F.R. § 219.22(a); *see also Earth Island Institute v. Evans*, 256 F. Supp. 2d 1064, 1074 (N.D. Cal. 2003) (holding that Secretary of Commerce's decision to decline to find significant adverse impacts to dolphin population caused by purse seine fishing based on absence of "conclusive evidence" not consistent with "best available scientific evidence" required by Dolphin Protection Consumer Information Act); FEIS, vol. 3, part 4.4 at 87 (Forest Service acknowledges, in the context of evaluating effectiveness of fuel treatments that "confidence in these longer-term future projections is further lowered due to additional uncertainty regarding future conditions.")

4. The DSEIS Fails to Analyze the Impacts of Substantially Increasing Timber Harvesting and Logging Intensity

Under the proposed Revision Plan, green timber harvesting and salvage harvesting each triple in the first decade as compared to the Framework, and quadruple in the second decade. DSEIS at 82. In fact, timber harvesting levels could be higher, as the Revision Plan does not limit the amount of "forest health" treatments allowed, which translate to additional logging. DSEIS at 187. Yet, the DSEIS contains *no* discussion of the impact of that tripling and quadrupling on the forest or its resources, including sedimentation impacts, aquatic and watershed degradation, soils. Further, the DSEIS contains no discussion of the need for additional timber roads and the impact of additional roads, and no discussion of the impact on wildlife, from any aspect of the increased harvesting, or even from the increased disturbance of mechanical entry.

The Revision Plan expands the scope of logging, limited in the original Framework to a means of reducing risk of catastrophic wildfire, to now, inter alia, generate revenues through commercial forest products. DSEIS at 45. The Revision Plan increases logging intensity by removing the diameter limits on trees to be cut and reducing the canopy cover. DSEIS at 53. The Revision Plan eliminates Standards and Guidelines for old growth stands, allowing more logging in old growth forest. DSEIS at 53. The DSEIS contains no discussion of the impacts of these proposed actions on the forests or the forest resources. The absence of meaningful discussion violates NEPA.

5. The DSEIS Fails to Analyze the Impacts to the Spotted Owl.

The Revised Plan promises to fragment and disturb spotted owl habitat. "The best scientific information available indicates that high survival of spotted owls is achieved by maintaining large unfragmented areas of suitable habitat." USFWS listing decision, 68 Fed. Reg. at 7,595. The DSEIS fails to discuss the impact of the fragmentation of habitat on the spotted owl caused by full implementation of the Quincy Project, squarely in prime owl habitat. This failure makes the DSEIS facially deficient under NEPA. In fact, the original Framework FEIS reported that "in the central Sierra Nevada (represented as Plumas, Tahoe, Eldorado and Stanislaus National Forests, which contain about 46 percent of the owl sites in the Sierra), 58 percent of the home ranges contained less than 60 percent suitable habitat." *See id.* at 7,596.

Yet, the Revision Plan allows the large-scale Quincy Project in the middle of this prime habitat without discussion of impacts on the owl beyond the concept of "uncertainty."

In the original Framework ROD, the Forest Service identified "ensuring the long term protection and recovery of old forest conditions and the spotted owl and other species" as of greatest concern. It would accomplish that goal, inter alia, through protection and management of spotted owl home range core areas, including in the Plumas National Forest and by managing the "general forest outside of the owl core areas to maintain and increase the amount of suitable spotted owl habitat." *See id.* at 7598. Virtually every action identified in the Revision Plan undermines or calls into question those protections, including the full implementation of the Quincy Project in prime owl habitat, the reduced canopy cover goals, the increased timber harvest, the decreased protection for trees between 24 and 30 in dbh, and the overhaul of various Standards and Guidelines. The impact of these changes on the owl and on owl habitat is not addressed in the DSEIS in violation of NEPA.

6. The DSEIS Fails to Analyze the Impacts of Implementing the Quincy Library Project

Under the Revision Plan, the large-scale Quincy Project in the Plumas and adjoining national forests will proceed, exempted from certain harvesting limitations and Standards and Guidelines in the original Framework. This will substantially enlarge the Project, increase timber harvesting and fragment wildlife habitat, which are a key feature of the Framework. The DSEIS states that the Quincy project "may lead to increases in fragmentation and habitat patchiness. The increases in fragmentation and patchiness are likely to isolate subpopulations [of spotted owls] and limit the opportunity for interactions across NFS lands." DSEIS at 193. The Forest Service then states that the impacts on the owl from this fragmentation are "ambiguous" and "uncertain." This conclusion is entirely at odds with the findings of the USFWS, which states unambiguously that "the best scientific information available indicates that high survival of spotted owls is achieved by maintaining large, unfragmented areas of suitable habitat." 68 Fed. Reg. at 7,595. "Important habitat components, especially large trees, large snags, and large down logs, are currently in short supply across the range of the California spotted owl." *Id.* The DSEIS neglects to note that the Quincy project area contains these important habitat components.

In fact, the DSEIS fails entirely to address the potential impacts of fully implementing the Quincy Project. Its statements of "ambiguity" and "uncertainty" are wholly inappropriate for the environmental review document. Unquestionably there is uncertainty in projecting possible environmental impacts. Any environmental impact projection faces such uncertainty, but NEPA, nonetheless, requires the evaluation. We express no opinion concerning whether and how the Quincy Project should be implemented, but the lack of discussion of projected impacts for the full implementation of the Quincy Project underlines the importance of comparative analysis of meaningful alternatives. What are the comparative impacts of a small scale Quincy Project? Of a different configuration? Of different Standards and Guidelines? Of different corridor routes? Of specific owl protections? Any number of reasonable alternatives could be evaluated. It is not of any value to simply state that impacts are "uncertain," particularly where the USFWS has

identified continuous, unfragmented habitat and the presence of large trees as essential to the survival of the spotted owl.

The proposed Revision Plan creates two exceptions to the Quincy Project set forth and approved in the Quincy ROD: (1) the mitigation measure to avoid conducting resource management activities in suitable owl habitat is dropped and (2) certain construction can now proceed in old growth areas. DSEIS at 53. First, there is no explanation for these changes. Second, there is no discussion of the environmental impact of these changes. And, third, there is no discussion of the fact that the DSEIS for the Revision Plan is making a substantive change to the Quincy Project – duly approved by ROD and EIS – without going through any NEPA or public review process. All of these deficiencies violate NEPA.

7. The DSEIS Fails to Analyze the Impacts of Removing Prescriptive Standards and Guidelines and Reversion to Pre-Framework "Local Control"

The Forest Service proposes to delete certain Standards and Guidelines from the Framework because of their "prescriptive nature." The Forest Service proposes to replace them with "local flexibility." The DSEIS states that the change will not impact the environment because the "management direction is unchanged." *See, e.g.*, DSEIS at 160-61. In fact, the Standards and Guidelines were established in the original Framework as a floor, to create a bright line rule and to ensure a level of environmental protection that could not be altered. By deleting that floor and creating local discretion, the Revision Plan alters the nature of decision making and precludes the bright line. This approach almost certainly has potential substantial environmental impacts, particularly in light of the fact that the DSEIS does not identify ways, other than a general management direction, that discretion will be limited. For example, "forest health treatments"– a form of timber harvesting – are identified in the DSEIS for use on 1,000 acres per year, but there are no actual limits in the proposed Revision Plan, and the harvesting could actually take place on hundreds of thousands of acres a year. Without standards and guidelines as baseline protection, the environmental damage could be very large.

8. The DSEIS Fails to Analyze the Impacts of Increased Grazing and Timber Harvesting

The Revision Plan increases grazing and timber harvesting. Despite these changes, the Forest Service concludes that, even though timber harvesting is tripling and quadrulping and grazing will increase, the effects on the aquatic resources *are not changed from the Framework* because the management goal is the same. DSEIS at 160-61. The Forest Service fails to discuss impacts on, *inter alia*, aquatic resources, of increased timber harvesting, mechanical entry, and road building. With respect to grazing impacts, the DSEIS states that there is an "alarming" downward trend in the number of willow flycatcher territories in the north central Sierra and that there has been a recent "increase in cowbird parasitism" of this species. DSEIS at 116-117. Livestock grazing is one of several activities (including water developments, recreation and

pesticide use) that could directly impact willow flycatchers. These impacts and issues are not addressed in the DSEIS, as required by NEPA.

9. The DSEIS Fails to Analyze the Cumulative Impacts of "Healthy Forest" Initiatives

The DSEIS identifies the potential for cumulative impacts from related projects in the national forests as an issue for consideration. The discussion of in the DSEIS of cumulative impacts, however, completely misses the point and the legal requirements. Under NEPA, a federal agency is required to evaluate whether a project's impacts, though individually limited, are cumulatively significant. 40 C.F.R. § 1502.16; *City of Carmel-by-the Sea v. DOT*, 123 F.3d 1142, 1160 (9th Cir. 1997). A cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. 40 C.F.R. § 1508.7. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.7. "Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment." 40 C.F.R. § 1508.27(7).

The Forest Service identifies the proposed revisions to the NFMA regulations as well as the various proposals set forth under the rubric of the "Healthy Forest" Initiative as relevant to the discussion of cumulative impacts. DSEIS at 141-44. Then, inexplicably, the Forest Service fails to discuss the potential cumulative impacts of the Revision Plan in combinations with the revisions and the Initiative. Instead, the Forest Service simply states that the Revision Plan will be implemented consistent with the revisions and Initiative. Actions proposed under the revisions and initiatives could have significant environmental impacts that will be exacerbated by the Revision Plan. As just one example, the proposed rules limiting project appeals act in conjunction with the Department of Agriculture's proposal to create a categorical exemption for projects related to fire suppression on national forest lands. The proposed appeal rules preclude comment on and appeal of projects categorically exempted from the NEPA process. As a result, massive projects may proceed without any right to public input, review or appeal. The proposed Revision Plan increase both green and salvage logging and increase fire treatments. The combination of appeal rules, categorical exemptions, and increased logging and fire suppression activities could have large-scale cumulative impacts. The Forest Service fails to properly address these and many other potential cumulative impacts. This is a major deficiency that must be addressed.

IV. The Revision Plan Places in Jeopardy Both Habitat and Species Including the Spotted Owl and Violates Both the Endangered Species Act and the National Forest Management Act

1. The Forest Service's Rejection of a "Cautious Approach" to Species and Ecosystem Protection Violates the Endangered Species Act and the Forest Service's Own Regulations

In the Framework and FEIS, the Forest Service took a cautious approach to risk and uncertainty. If data suggested or were consistent with possible decline in population of particular species, the Forest Service assumed that, in fact, the species – such as California spotted owl, willow flycatcher, Yosemite Toad, and great grey owl – were at risk and took measures to reduce that risk. *See, e.g.*, FEIS at 93. The Forest Service was particularly concerned with short term risk and uncertainty, both because short term risk could lead to irreparable population declines and because long-term modeling is notoriously less accurate. As the Forest Service acknowledged in the Framework, banking on long-term benefits to a species in the face of a known short-term increase in risk is itself a risky proposition. *See, e.g.*, FEIS, vol. 3, part 4.4, at 87.

In the Revision Plan and DSEIS, the Forest Service has fundamentally altered its approach to risk and uncertainty. The Forest Service now assumes that where the data do not compel a finding that a species is suffering a decline or is at risk, it will simply assume that there is no decline or risk. *See, e.g.*, DSEIS at 39, 67. The Forest Service also relies heavily on long-term projections, which show hypothetical benefits to certain species in the Nth decade. This allows the Forest Service to propose increased logging in the habitat of many proposed, threatened and endangered species associated with old growth forests, continued grazing in habitat associated with proposed, threatened and endangered species dependent on aquatic ecosystems, and the unfettered implementation of the Quincy Pilot Project in the middle of habitat for the at-risk spotted owl.

The Forest Service's rejection of the cautious approach violates the ESA and related NFMA regulations requiring maintenance of species viability. *See* 36 C.F.R. § 219.20. "'Congress has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities, thereby adopting a policy which it described as 'institutionalized caution.'" *Pacific Rivers Council v. Thomas*, 30 F.3d 1050, 1055 (9th Cir. 1994) (quoting *TVA v. Hill*, 437 U.S. 153 194 (1978)). Caution is inherent in section 7 of the ESA, which requires federal agencies to insure that its actions are not likely to jeopardize the continued existence or result in the destruction or adverse modification of listed species. 16 U.S.C. § 1536(a)(2). The section does not allow an agency to claim that it is "innocent" of section 7 violations simply "because it is not aware of any data that confirms" jeopardy; such a "head-in-the-sand attitude" is "in conflict with the underlying philosophy of the ESA." *Greenpeace Foundation v. Mineta*, 122 F. Supp. 2d 1123, 1134-35 (D. Hawaii 2000); *see also id.* at 1132 (holding that agency "cannot speculate that no jeopardy to monk seals . . . will occur because it lacks enough information regarding the impact of fisheries on seals").

If the Forest Service's scientific conclusions were sufficiently certain at the time of the ROD to say that reduced timber harvesting and restrictions on grazing were necessary to protect old-growth associated species like the California spotted owl and aquatic ecosystem-associated species such as the willow flycatcher, "it cannot now be heard to say that this same evidence is insufficiently certain [in order] to conclude that such harm is unlikely." *See Greenpeace v. National Marine Fisheries Service ("NMFS")*, 106 F. Supp. 2d 1066, 1078 (W.D. Wash. 2000) (holding that NMFS could not reverse its position that commercial fishing posed threat to Stellar sea lion based on argument that scientific analysis previously relied on was "speculative"); *see also Greenpeace Foundation v. Mineta*, 122 F. Supp. 2d at 1132 (rejecting NFMS's no jeopardy opinion as in conflict with its earlier determination that impacts to monk seal were uncertain, noting that agency was improperly "emboldened by its ignorance").

Neither can the Forest Service simply ignore short terms risks to listed species, focusing instead on hypothetical, long-term gains to species predicted by its new models – which, coincidentally, would allow increases in timber harvesting and grazing. *See Greenpeace Foundation v. Mineta*, 122 F. Supp. 2d at 1133 ("The conclusion of 'not likely to adversely affect' does not square with NMFS's admission that the existing model grows increasingly uncertain"); *see also Idaho Dept. of Fish and Game v. NMFS*, 850 F. Supp. 886, 899 (D. Or. 1994) (holding that "NMFS's failure to adequately explain why it prefers uncertain favorable model results and rejects other equally uncertain model results tending to undermine a no jeopardy conclusion" rendered NMFS's decision arbitrary and capricious).

The Forest Service cannot proceed with the proposal set forth in the DSEIS, consistent with the ESA.

2. The Revision Plan Cannot Proceed Until the USFWS Completes a New Biological Assessment and Opinion for the Numerous Potentially Impacted Species Listed as Threatened or Endangered Under the Endangered Species Act

The Revision Plan could harm listed and candidate species under the Endangered Species Act. The Forest Service, therefore, is required to obtain a biological assessment and biological opinion concerning the impact on those species of the Revision Plan. The assessment and opinion must fully and fairly analyze the impacts of substantial changes to the Framework that the Forest Service proposes. We look forward to reviewing those documents.

3. The Revision Plan, if Adopted, Would Require a New Listing Decision For the California Spotted Owl Under the Endangered Species Act and Would Subject Each and Every Project Proposed Under the Amended Framework to Injunction For Potential Harm to the Owl

The USFWS listing decision under the Endangered Species Act for the California spotted owl is explicitly based on the specific protections of the owl and its habitat set forth in the original framework. The listing decision, further, explicitly states that significant changes to the Framework will necessitate further evaluation for listing. 68 Fed. Reg. at 7,604. The proposed

Revision Plan, as set forth above, radically alters the Framework, and takes particular aim at specific protections for the owl, including the size of trees to be cut, the nature and extent of the Standards and Guidelines, the change in use of the concept of risk and uncertainty, and the promotion of the full Quincy Project in the middle of California spotted owl habitat. The changes proposed in the Revision Plan each have implications for the California spotted owl and its habitat. Approval of the Revision Plan will require full re-evaluation of the listing decision. That listing re-evaluation must proceed before the Forest Service pursues any projects under any changed version of the Framework to ensure protection of the owl.

4. Under the National Forest Management Act, the Forest Service Must Ensure the Viability of Species; the Revision Plan Fails to Do So, in Violation of the Law

NFMA and Forest Service regulations mandate that the Forest Service 1) maintain viable populations of Forest Service-designated sensitive species, 2) analyze the adverse effects of a proposed action that may impact sensitive species habitat, populations and viability prior to taking such action and 3) avoid actions which may move a sensitive species towards threatened or endangered status. *Idaho Sporting Congress, Inc. v. Rittenhouse*, 305 F.3d 957, 961 (9th Cir. 2002); 16 U.S.C. § 1604(g)(3)(B); Forest Service Manual §§ 2670.12, 2670.22, 2672.1. Unfortunately, as reflected in the Forest Service's own scientific findings regarding the adverse effects of its proposed action on certain sensitive species, the Forest Service places sensitive species' habitat, populations and viability at significant risk, thus moving sensitive species towards federal listing under the ESA. The Forest Service's DSEIS also lacks the requisite analysis of adverse impacts on habitat, population and viability for certain sensitive species.

The NFMA directs the Forest Service to "comply with [NFMA's] substantive requirements designed to ensure continued diversity of plant and animal communities and continued viability of wildlife in the forest." *Idaho Sporting Cong., Inc. v. Rittenhouse*, 305 F.3d 957, 961 (9th Cir. 2002); 16 U.S.C. § 1604(g)(3)(B)(2003). The agency's duty to ensure the continued viability of wildlife "applies with special force to 'sensitive' species." *Inland Empire Public Lands v. U.S. Forest Service*, 88 F.3d 754, 759 (9th Cir. 1996) (citing *Oregon Natural Resources Council v. Lowe*, 836 F. Supp. 727, 733 (D. Or. 1993)); *see also* Forest Service Manual, Title 2600 – Wildlife, Fish, and Sensitive Plant Habitat Management §§ 2670.22, 2672.1 (1995). Forest Service regulations further preclude the Forest Service from adopting management decisions or actions that may cause a sensitive species to become threatened or endangered, *i.e.* to cause the federal listing of sensitive species. Forest Service Manual at §§ 2670.12, 2672.1.

Although the Forest Service's DSEIS contains broad statements about the possible risks the proposed project, Alternative S2, poses to sensitive species habitat, it offers little or no discussion of the impacts the proposed alternative may have on the *viability* of certain sensitive species *populations* and it fails to show how risks posed to species habitat are linked to impacts on species *viability*. This lack of analysis violates Forest Service sensitive species regulations, which state:

> There must be no impacts to sensitive species without an analysis of the significance of adverse effects on the *populations, its habitat, **and** on the viability* of the species as a whole. It is essential to establish population viability objectives when making decisions that would significantly reduce sensitive species numbers.

Forest Service Manual § 2672.1 (emphasis added).

For instance, although the DSEIS acknowledges that dense canopy closure is a component of California spotted owl habitat correlated with greater owl reproductive output and that Alternative S2 would reduce canopy closure as compared to the Framework, the DSEIS includes no discussion of the possible impacts that such a canopy reduction may have on the viability of owl populations. DSEIS at 187. The DSEIS also identifies the disruptive effect Alternative S2 would have on the continuity of owl habitat (*i.e.* increased fragmentation, patchiness, and isolation of subpopulations), yet proffers no information or credible scientific evidence regarding the consequences that such a disruption would have on owl populations and viability. DSEIS at 193.

Similarly absent in the DSEIS is a discussion of Alternative S2's environmental consequences for the Foothill yellow-legged frog. DSEIS at 214-15. Although the DSEIS concedes that "the primary difference between [Alternative S1 and the Framework] for this species is in regard to management of livestock grazing," the document is silent on the impacts such a shift in allowable management activities would pose to frog populations, habitat, and viability. DSEIS at 214. The Forest Service acknowledges that "mechanical treatment to reduce hazardous fuels may change the microclimate of upland stands utilized by Foothill yellow-legged frogs during period of movement and ... will reduce the amount of large woody debris used by Foothill-yellow frog for resting or hiding cover." DSEIS at 215.

The Revision Plan potentially undermines the viability of numerous species and move species closer to listing under the ESA, thereby violating the NFMA and related Forest Service Regulations. The Revision Plan and DSEIS fail to address these issues in any meaningful manner.

5. Under the National Forest Management Act, the Forest Service Must Ensure the Best Available Science is Use For Decision-making; the Revision Plan Fails to Do So, in Violation of the Law

When undertaking a decision-making and planning effort for the national forests, the NFMA directs the Forest Service to use the best science available. 36 C.F.R. § 219.22. While the NFMA does not require an agency to adopt the most prudent course, it does charge the responsible agency with adopting a plan in the most-informed manner. Accordingly, where it advances management strategies that are unsupported by scientific information and merely cites scientific studies without showing any logical link between such data and its conclusions, the Forest Service fails to comply with NFMA's mandate requiring that an agency utilize the best science available for planning and decision-making. 36 C.F.R. § 219.22. Many of the examples

set forth in this comment letter, *e.g.*, deficiencies concerning science and analysis for, inter alia, the California spotted owl, the willow flycatcher, the Pacific fisher, and the Yosemite toad, reflect incomplete and insufficient analysis. We believe that the Forest Service can do better, and that the NFMA requires that it do so.

CONCLUSION

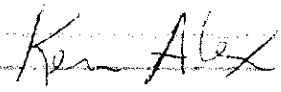
In the Forest Service's own words, "if participants trust the organization presenting the . . . information, they are more likely to accept the characterization. And the level of trust is a byproduct of the decision process. Experience in a variety of settings suggests that such trust is easily damaged and difficult to restore." DSEIS, at 37.

By jettisoning the Framework, a product of more than ten years of study, hard work, and extensive public participation, by changing direction without sufficient basis in science or rigorous evaluation and review, by characterizing its overhaul of the Framework as mere fine-tuning, the Forest Service appears set to cause irreparable damage not only to our forests, but to the public's trust of the agency as well. The DSEIS is legally and scientifically deficient, and does not support the Forest Service's proposed radical change in direction from the Framework.

We strongly urge the Forest Service to proceed with implementation of the Framework as drafted, and as approved in 2001. Such action will go a long way in restoring California's Sierra national forests and in rebuilding public trust in the agency.

Thank you for the opportunity to present our comments.

Sincerely,



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For BILL LOCKYER
Attorney General

ken.alex@doj.ca.gov
(Ken Alex)

09/09/2003 09:43 AM

To: <snfpa@fs.fed.us>
cc:
Subject: Framework Revision Comment Letter

Please find attached the comments of the California Attorney General Bill Lockyer concerning the USFS proposed revisions to the Sierra Nevada Framework Plan. The comments have also been sent by regular mail.

 comment letter final.pdf

COUNTY OF NEVADA

SN-934

STATE OF CALIFORNIA

950 Maidu Avenue • Nevada City • California 95959-8617

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August 27, 2003

Mr. Jack Blackwell, Regional Forester
US Forest Service
1323 Club Drive
Vallejo, CA 94592

Dear Mr. Blackwell:

At our regular meeting yesterday, the Nevada County Board of Supervisors agreed by a vote of 4 to 0 (VanZant-absent) to support amending the Sierra Nevada Framework as outlined by the June 2003 Sierra Nevada Forest Plan Amendment Draft Supplemental Environmental Impact Statement (SEIS).

In addition, we support the recommendations of the Regional Council of Rural Counties for the following additional modifications to the Draft SEIS:

- Expand the wildland urban interface to protect rural communities
- Maintain the historical management objectives of the national forests with short-term emphasis on fire, insect and disease reduction
- Expand the treatment authority consistent with the National Fire Plan and pending forest health legislation
- Restore historical vegetative species diversity
- Adopt the favorable elements from other alternatives that would provide the greatest decline in wildfire acres, greatest increase in old forest conditions and the greatest economic benefit

We want to extend our gratitude and acknowledgment for all the hard work and dedication of your staff and Review Team in working to protect the health of our forests and the safety of our communities. Thank you.

Sincerely,

Sue Horne

Sue Horne
Chair, Board of Supervisors

cc: Congressman J. Doolittle
Steve Eubanks, TNF
Brett Harrington, RCRC

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Emailed to snfpa@fs.fed.us

September 9, 2003

Sierra Nevada Forest Plan Amendment DSEIS
P. O. Box 221090
Salt Lake City, UT 84122-1090

Attention: Content Analysis Team

Gentlemen:

Thank you for giving us the opportunity to respond to the Draft SEIS. The Inyo County Board of Supervisors supports the comments made by the Regional Council of Rural Counties' (RCRC) to the Sierra Nevada Forest Plan Amendment DSEIS and which are being sent to you via RCRC. This DSEIS is a necessary improvement over the Final EIS issued in January 2001 and we hope that our comments will assist the Forest Service in resolving our remaining concerns.

The County of Inyo is specifically very concerned with the defense zones as specified. The record of decision defines intermix "as the area surrounding one structure for five acres." A quarter mile defense zone is authorized only for such qualifying communities. Defense zones extend approximately one-quarter mile from areas that have the density of one structure for five acres. The threat zone normally buffers the defense zone and it extends approximately one-quarter mile out from the defense zone. In some cases where structure density is less than one structure for five acres and greater than one structure for 40 acres a threat zone maybe delineated in the absence of a defense zone. As a general rule, if the structure density is less than one structure per five acres a defense zone is not established and therefore neither is the threat zone. Modeling was based upon one structure for forty acres. The record of decision reduces the available acres for protection by 50%. It would be Inyo County's recommendation to improve the network by redefining the wildland-urban interface to one structure per forty acres. To improve the network by establishing the defense zone from the point that would trigger community evacuation and where national forest system lands are contiguous enough to provide an effective fuel break. Also permit SPLATs on both sides of the defense zones where applicable and prioritize treatments on condition class two and three. The National Fire Plan specifies a network of defensible space be in place within the first decade. The DEIS states, "both the community protection and landscape fuel treatments are accomplished over a twenty to twenty-five year period." (pg. 39) Therefore Inyo County would be in support of adjusting the pace and scale of the fuel reduction strategy to be in place within the first decade.

In addition to the County's specific comments and those comments submitted by the Regional Council of Rural Counties, Inyo County remains committed to the long-range goals established through our very successful Inyo 2020 Forum, which are reiterated below and should be reflected and considered in the final EIS.

- Provide opportunities to obtain local consensus and support for any changes to public land designations, uses and/or access in Inyo County and address the concerns of local residents and public land users;

- Ensure, through prior economic analysis, that Inyo County's communities and business will not be adversely impacted by changes to public land management;

- Protect existing recreation, grazing, packing, mining, research, archeological and cultural uses on Forest Service lands, including access;

- Protect private property rights, including vested water rights, and access to private land inholdings and other lands that may be affected by adjoining lands;

- Ensure there is no net loss of revenues to local governments necessary to provide and maintain essential public facilities and services.

In conclusion Inyo County (a) welcomes the opportunity to comment and provide input into the Draft SIES and recognizes that it is a substantially better document than the original EIS; (b) recognizes and appreciates the Regional Forester's willingness to hear local issues and look forward to collaborating on those important local issues, which remain unresolved; (c) supports the comments submitted by RCRC in general; and (d) specifically urges the development of processes, which allow for local input and impact assessments prior to management changes in the Inyo National Forest.

Sincerely,

Michael A. Dorame

Michael A. Dorame
Chairperson, Inyo County Board of Supervisors

pg

Pat Gunsolley
<inyobos@qnet.com>

09/10/2003 05:43 PM

To: snfpa@fs.fed.us
cc:
Subject: Sierra Nevada Framework Draft SEIS Comments

Comment Letter Sierra Nevada Draft SEIS.doc

Fire Department

SN-1106

TOWN OF PARADISE

September 10, 2003

Sierra Nevada Forest Plan Amendment DEIS
P.O. Box 221090
Salt Lake City, UT 84122-2090

The SNFD DEIS is a comprehensive look at the condition of the Sierra Nevada Forests and provides an excellent analysis of the impacts various management options might have on the future health of this magnificent area.

As a Fire Chief responsible for the protection of 27,000 people who live on the edge of the Sierra Nevada Forest, I am greatly concerned about the impacts of wildland fires on the resident and homes and other values at risk in our community. As a citizen, I am also concerned about the health of the forest now and in the future.

The USFS preferred alternatives, A-S-2, appears to address the impacts of wildland fire while promoting a healthy forest. The emphasis on fuel treatment in WUI areas followed by area treatments that will reduce the intensity and size of wildland fires will greatly improve the safety of residents in the affected forest. This alternative will also improve the economic condition of forest dependant communities.

It appears that the best science available today indicates that the altered status of the Sierra Nevada Forests needs to be addressed proactively in an effort to restore historically natural forest ecosystems. The preferred alternatives utilize all methods available to create a more natural fire resistant forest that serves the ecological, safety and economic needs of the forests and the communities that they encompass.

Thank you for the opportunity to comment on this very important issue. Please feel free to contact me at (530) 872-6266.

Sincerely,

Jim Broshears
Fire Chief

767 Birch Street • Paradise, California 95969-4834 • Telephone (530) 872-6264 • Fax (530) 877-5957

767 Birch St., Paradise, CA 95969 (530) 872-6265
FAX: (530) 877-5957

Town of Paradise Fire Department

Fax

To: Sierra Nevada Forest Plan **From:** Jim Broshears, Fire Chief

Fax: 801 517-1014 **Sender:** Jan Gray

Phone: **Date:**

Re: **CC:**

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments: You should receive** 2 **page(s), including this cover sheet.** If you do not receive all the pages, please call (530) 872-6265.

SN-1179

Bob Dale
<bobdale@fseee.org>
09/12/2003 04:51 PM

To: snfpa@fs.fed.us
cc: bobdale@fseee.org
Subject: comments on Sierra Nevada forest plan amendment

<fontfamily><param>Geneva</param>September 12, 2003

Sierra Nevada Forest Plan Amendment DSEIS

PO Box 221090

Salt Lake City, UT 84122-1090

[Transmitted via e-mail]

Dear Content Analysis Team:

Forest Service Employees for Environmental Ethics (FSEEE), a nationwide citizen-employee partnership with more than 10,000 members, is submitting these comments regarding the Draft Supplemental Environmental Impact Statement (DSEIS) for the Sierra Nevada Forest Plan Amendment.

1. <bold>FSEEE supports the goal of having a regional plan for the Sierra Nevada national forests that ensures flexibility for land managers to consider local conditions and site-specific variables and how they should enter into decision-making at landscape and project levels.</bold> In 1999, FSEEE presented a detailed alternative to the Forest Service that emphasized using watershed analysis and other site-specific analyses as the primary analysis tools for decision making and the avoidance of one-size-fits-all prescriptions. This alternative was presented to the Forest Service in a publication,<bold> Restoring Our Forest Legacy: Blueprint for Sierra Nevada National Forests</bold>.

2. On February 12, 2003, FSEEE sent a letter to the regional forester Jack Blackwell at the suggestion of agency staff in the Regional Office asking that we be involved in the formulation of a new alternative that emphasizes flexibility and site-specific analysis in decision making. Our letter never received the courtesy of a reply. We can only assume that our further input was either not welcome or not desired.

Therefore, we now refer the agency back to the input we provided in 1999.

3. On pages 100-106 of <bold>Restoring Our Forest Legacy</bold>, we presented an eight-pronged fire and fuels management strategy that we would like to recommend again to the agency. We would like to point out that the fire and fuels management strategy in <bold>Restoring Our Forest Legacy</bold> emphasized, among other things, fuels treatments (where needed) that truly reduced fuels levels and treated activity fuels. The preferred alternative (S2) presented in the DSEIS fails in this regard because it provides for fuels reduction treatments that would include the cutting of trees up to 30 inches in diameter. <bold>The cutting of trees in the 20- to 30-inch diameter class has no place in a fuels reduction project worthy of the name.</bold> Typically, the only purpose in cutting trees of this size is to provide wood products and support economic activity on national forest lands. Providing wood products and fostering economic activity are legitimate goals for public lands but these goals should be clearly articulated as such. They should not confused with or hidden behind the equally legitimate fuels reduction goal emphasized in the DSEIS. There should be no pretending or misrepresentation that the cutting of trees in the 20- to 30-inch diameter class serves any legitimate fuels reduction purpose in most cases.

4.<bold> </bold>The DSEIS points out on page 150 of chapter 4 that trees in the 20- to 30-inch diameter class provide the most immediate and important pool of trees for recruitment into the 30-inch and greater diameter classes that are characteristic of old forest ecosystems. The DSEIS also points out that larger diameter classes are particularly rare in eastside ecosystems and that "[r]emoval of trees in this recruitment pool could delay the restoration of old forest conditions in the eastside by at least several decades." <bold>This clearly indicates that the cutting of trees in the 20- to 30-inch diameter class will have extremely significant and negative ecological effects in old forest ecosystems.</bold> The DSEIS does not clearly articulate how these effects will be mitigated.

5. If these significant ecological effects associated with the cutting of trees in the 20- to 30-inch diameter class were offset by significant benefits related to (1) fuels reduction and/or (2) reduced risk of high severity fires in areas where high severity fires are not part of the natural fire regime, then the significant, negative effects on old forest ecosystems might be deemed acceptable, at least in some cases. However, it is well understood that fuels reduction activity

should necessarily focus on brush and trees in smaller diameter classes; no genuine fuels reduction benefit is associated with the cutting of larger trees. The only real benefit is economic. <bold>The DSEIS does not clearly articulate or disclose this significant trade-off between economic benefit and significant ecological harm. Instead, the DSEIS pretends a fuels reduction benefit associated with the cutting of larger trees that will not or does not exist in most cases. </bold>The cutting of smaller trees and larger trees has been incorrectly and inappropriately lumped together in assuming fire and fuels benefits associated with the mechanical thinning of trees.

Thank you for the opportunity to submit these comments.

Sincerely,

/s/

Bob Dale

Field Director

FSEEE

PO Box 11615

Eugene, OR 97440

</fontfamily>

Sierra Nevada Forest Plan Amendment
Supplemental EIS Comments
Addendum

The Regional Council of Rural Counties previously filed comments on behalf of its twenty-nine county membership. Please accept the following comments as addendum to the previously submitted comments.

Issues Outside the Scope of this Document

The Purpose and Need of the Sierra Nevada Forest Plan Amendment was to address five issue areas: 1) Old forest Ecosystems and Associated Species, 2) Aquatic, Riparian, and meadow Ecosystems, 3) Fire and Fuels Management, 4) Noxious Weeds, and 5) Lower Westside Hardwood Forest Ecosystems.

The Regional Council of Rural Counties maintains its disappointment in the Forest Service for not identifying recreation, grazing, timber production, and cultural, demographic and socioeconomic effects as "significant issues" throughout the Sierra Nevada Conservation Framework EIS process, including the development of the draft SEIS. All reviews have concluded the impact associated with theses issue areas has been significant. As declared in the National Environmental Policy Act, "it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." (Emphasis added.)

The Council on Environmental Quality (CEQ) implementing regulations specify "the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality." (Sec. 1508.27) "'Human environment' shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment…When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment." (Sec. 1508.8) These effects include significant reductions in recreational access, grazing allotments and timber harvest. The regulations further direct agencies to determine "the significant issues to be analyzed in depth in the environmental impact statement and identify and eliminate from detailed study the issues which are not significant." (Sec. 1501.7) Failure to address recreation, grazing, timber production, and cultural,

demographic and socioeconomic concerns as separate and distinct issues can only be justified if there are no significant changes to cultural, demographic and socioeconomic conditions.

Please keep in mind, based upon Stewart's (1996) detailed analysis for the Sierra Nevada Ecosystem Project, personal income earned is concentrated primarily in the goods-producing sector. In four of the six economic regions of the Sierra, commodity-based wage income was greater than service-based wage income. Recreation-related jobs as significant contributors to local wage income occur in the Lake Tahoe Basin and east-side communities. Any reduction in federal timber harvest will also cause significant fiscal impacts in many Sierra counties.

Laws, such as the Organic Act, the Multiple-use Sustained yield Act, the Forest and Rangeland Renewable Resources Planning Act and the National Forest Management Act, establish recreation, grazing, and timber production as primary management objectives. Neither the FEIS nor the SEIS have the authority to negate the laws. Holding a blind eye to the impacts does not absolve the agency from its obligation to mitigate the impacts to an insignificant level or initiating public involvement.

Recreation

Recreational impact of the direction in the FEIS and DSEIS remains confusing. The DSEIS acknowledges that the FEIS placed some restrictions on recreation and recreational infrastructure development. The Forest Service admits the proposed modifications under the SEIS will have minimal practical affect on reducing the impacts.

The impacts arise primarily out of the goals established for special land allocations. These goals become rules by virtue of the fact that any inconsistency between the project and the goals result in a discontinuance of the activity according to the standards and guides. An attempt was made to limit the application of the standards and guides to vegetative management, but the biological evaluations for the activity will still determine the impact of the activity based on the goals of the land allocation. For example, a recreational facility affected by winter blowdown and breakage would likely not be allowed to open in the spring until after the limited operating period that governs the cleanup expires.

The DEIS states only "Alternatives F4 and F7 would maintain the current level of RVDs" (pg. 80). As the Chief of the Forest Service stated in his response to our appeal, "the FEIS indicates that Alternatives 4 and 7 would pose only an intermediate risk to aquatic and riparian habitat, and shows no indication of risks being at an unacceptable level." (Letter dated November 16, 2001). We would again point out that the intermediate risk is the result of an acknowledged bias that mechanical treatment provided greater uncertainty than the effects of wildfire. With an intermediate or lower risk to the aquatic and riparian habitat, we ask the Forest Service to reconsider the conflicting goals and guides and adopt the goals and guides from Alternative 4 or 7.

Cattle Grazing

Grazing has been an established use of national forest system lands that outdates the existence of the Forest Service. Through the years, forest management has decreased grazing capacity. Fire exclusion has largely allowed trees to replace grasses and brush. Decreases in forage result in

decreases in grazing. The DSEIS further limits the available grazing by 20 percent (83,000 animal unit months). Twenty percent is significant and cannot be declared outside the scope of this EIS.

Cattle grazing has a minor impact on the Yosemite toad yet the Yosemite toad has a significant impact on grazing. The major impact on the Yosemite toad occurs from predation from introduced non-native fish species. Most nonnative fish species are desired introduced species, maintained in many locations through planting programs. Desired nonnative species are provided protection on national forest lands through the Forest and Rangeland Renewable Resources Planning Act of 1974 and National Forest Management Act of 1976 implementing regulations. The implementing regulations governing existing forest plans require the Forest Service to "maintain viable populations of existing native and desired non-native vertebrate species in the planning area (36 CFR Part 219.19)." The new planning regulations issued November 9, 2000 requires the Forest Service to "provide for ecological conditions that ...are capable of supporting over time the viability of native and desired non-native species well distributed throughout their ranges within the plan area (§ 219.20 (b)(2)(i))."

Before determining to remove cattle from Yosemite toad habitat, the Forest Service must first determine the extent to which nonnative fish species are desired. The Fish and Wildlife Service noted in the 90-day finding on the petition to list the species, "there is ample evidence to suggest that Yosemite toads cannot coexist with introduced fish." Clearly, the removal of cattle cannot be effective without a simultaneous decision to eliminate non-native fish populations. The standards and guides should reflect that a decision to remove cattle from Yosemite toad habitat must be conditioned on an absence of introduced fish.

Grazing deserves a separate analysis. The decline in grazing capacity can and must be reversed. Restoration of grazing capacity would include restoration of meadows, reduced forest fuels, restoration of fire-adapted ecosystems and open forests sufficient to grow grasses. Management to increase grazing capacity would benefit multiple national forest purposes.

In the interim, we recommend the Forest Service adopt the standards and guides of Alternative F4 or F7. The DSEIS states, "Alternatives F4 and F7 would cause the least reduction in grazing use... [and] ... have more suitable rangeland (acres available for grazing..."(pg. 77). As previously noted, Alternative 4 and 7 shows no indication of unacceptable risk. Additionally, Alternative 4 provides for long-term protection for wildlife and other resources. (See Chief's letter to RCRC dated November 16, 2001)

Timber Production

The commercial production of forest products results as both a by-product and primary purpose of forest management. This EIS address only the by-product production portion. The DSEIS states, "with the exception of the HFQLG Pilot Project Area, the widespread production of commercial forest products is outside the scope of this SEIS and the Purpose and Need" (pg. 67). If the production of commercial forest products as a primary purpose is outside the scope of the DSEIS, the DSEIS cannot amend the primary production of commercial forest products established in forest plans. The standards and guides developed for fire and fuels must not be applied to timber sales where the primary purpose is to produce forest products. The direction in DSEIS only applies to fuels treatment projects.

This rationale makes considerable sense when one considers, for example, there is minimal need to treat forest fuels in riparian areas if forest fire risk is reduced to a low level adjacent to the riparian areas. However, there may be other reasons to treat riparian areas that are outside the scope of fire and fuels and perhaps this EIS. In this example, treatment of riparian areas may be appropriately addressed under the Aquatic, Riparian, and Meadow Ecosystems section.

The urgency to reduce forest fuels may appropriately require the entire resources of the Forest Service, such that during an interim period timber sales for the primary purpose of timber production are foregone. However, this must be explicitly stated in the amendment to avoid the misperception that timber production, as a primary purpose has been eliminated.

The legally questionable elimination of timber production as a primary management purpose would at least trigger a forest plan revision. Elimination has far reaching impacts to forest communities, educational institutions, national and international trade, and the justification for certain lands to remain part of the national forest system. A forest plan revision process differs from an amendment process. The Forest Service was barred from forest plan revisions when the EIS process began and therefore did not follow a forest plan revision process.

Please clarify that the production of commercial forest products remains a primary purpose of national forest management and is thereby unchanged by this EIS.

We believe the record is clear. The FEIS and this SEIS will have a significant effect upon the cultural, demographic and socioeconomic conditions of the human environment. The Forest Service must prominently acknowledge this conclusion and mitigate the impacts or prepare the appropriate analysis of the effects.

Thank you again for your consideration of our concerns.

Sincerely,

John

John B. Hofmann
Director, Natural Resources

"John Hofmann"
<johnh@rcrcnet.org>

09/12/2003 05:12 PM

To: <snfpa@fs.fed.us>
cc:
Subject: Draft SEIS on Sierra Nevada

Attached is an addendum to our earlier comments.

Addendum.doc

STATE OF CALIFORNIA
resources
AGENCY

GRAY DAVIS, Governor
MARY D. NICHOLS, Secretary

SN-1187

September 11, 2003

Mr. Jack Blackwell
Regional Forester
USFS, Pacific Southwest Region
c/o Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

Dear Jack:

Thank you for the opportunity to comment on the Sierra Nevada Forest Plan Amendment Draft Supplemental Environmental Impact Statement (DSEIS) of June 2003.

Let me preface my comments on the DSEIS with an assurance that the State of California remains steadfast in its desire to work with Region 5 of the United States Forest Service (USFS) on wildland fuels management and wildlife habitat in the Sierra Nevada. Our evident disagreements with the proposed direction, summarized below and detailed in the attachment, do not obviate the need for on-going cooperation between our agencies in the Sierra Nevada, particularly in the wildland-urban intermix. The proposal I made to you in my recent letter dated August 25 stands and is in no way changed by my comments on the DSEIS.

These are the major areas of concern with both the need and process involved in the DSEIS:

1. While the Resources Agency of the State of California has participated in the Review and offered significant input, we have seen little evidence to date that USFS has in fact considered our concerns and modified its approach accordingly.

For instance, early in the Review Team process we asked for a detailed list of all the projects implemented under the 2001 Record of Decision (ROD) that served as the evidentiary basis for changing the ROD. Though we asked for this list repeatedly, the USFS never produced this most basic part of the record. Both the Resources Agency and the Office of the Attorney General were forced to

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analyze the letters of the District Rangers in order to discern those projects, which as we suspected, were extremely limited.

Even in the absence of an empirical basis for revision, we were willing to consider detailed modeling of fire behavior and fuels as a basis for describing "the problem" as perceived by the USFS. We provided suggestions to Region staff regarding both the conduct of the modeling and the measures by which one could reasonably assert that a problem even existed. So far as we can tell, none of those suggestions were ever heeded, and indeed the very modeling effort nearly expunged from the record, again perhaps because the results did not unequivocally confirm the conclusions already apparently reached by the Region.

2. The purpose and need for the action you are undertaking in rewriting the Framework remain unsubstantiated. We refer you to the comments of the Attorney General of the State of California for a detailed analysis of the considerable legal shortcomings of the DSEIS. We are concerned about the factual basis for the purpose and need, particularly with respect to fire.

The DSEIS appears to predicate changes in forest management on the basis of the Review Team's analysis of the ROD with respect to the National Fire Plan, with particular emphasis on treatment effectiveness and cost. Yet when one examines the Review Team report, one finds a spatial analysis of one fire in one 50,000 acres watershed in the Central Sierra, with a conclusion that the treatments allowed under the ROD will in fact reduce the extent of burning. Setting aside the dubious practice of reconfiguring prescriptions for 11 million acres of land on the basis of single fire behavior analysis, the very results referenced by the DSEIS do not, in fact, support its central tenet. (The attachment details our concerns related to fire and fuels management.)

The near absence of significant fuels management in the defense zone in the two and a half years since the promulgation of the current ROD belies this concern with fuel treatment effectiveness and cost. California Department of Forestry (CDF) analyses of the public and private defense zone within the wildland urban intermix of the Sierra show nearly 50 percent to be in mature conifer stands. The USFS defense zone which covers 364,000 acres certainly has a higher than average incidence of mature timber, meaning that more than 182,000 acres of timberland could have been treated with commercial timber sales of trees up to 30"dbh since January 2001, generating considerable revenues for fuels treatment elsewhere in the forest. To our knowledge, few if any such sales have occurred. The inability of the USFS to execute timber sales not unlike those it now proposes for much larger areas far beyond the defense zone leads us to believe that the factors limiting the USFS response are not, as you claim, treatment effectiveness and cost.

These examples, when combined with the repeated assertion, despite our best attempts to highlight them, of conclusions without proof, indicate to us that you are employing not science or analysis, but instead a preconceived management direction, to be imposed on the Sierra Nevada—and California—by ministerial fiat. [This entire exercise has been extremely frustrating as we have seen considerable time, staff energy and resources consumed in an effort to return to a status quo ante, even as the situation regarding the need to reduce fuels especially around Sierra communities worsens though the lack of resources and management attention.

3. The preferred alternative constitutes a major change in direction with unexamined assumptions and significant unanalyzed impacts. Once again we refer you to the comments of the Office of the Attorney General of the State of California, which find that such a large shift in direction and spirit of the Framework requires something other than an SEIS. Our concerns involve the open-ended nature of the proposal and the uninformative of its impacts. For instance, in addition to strategically-placed area treatments, which were part of the 2001 ROD, the preferred alternative includes a new category of activity not included in the ROD or the Final Environmental Impact Statement:" forest health treatments". The DSEIS offers no guidance regarding the criteria to be used for engaging in forest health treatments which can be implemented using the same, presumably revenue-generating, prescriptions for fuels treatments. The DSEIS notes that up to 3.2 million acres of timberland, much of it with stand conditions conducive to owls, could be the target of such treatments. While the text suggests that only a small amount will be treated due to budget limitations, if the treatments are revenue generating, why would the budget limit forest health treatments? Moreover, what prevents forest health treatments from becoming a very large program, even as its impacts are entirely unexamined?

Lastly, though we will leave to others the detailed assessment of the preferred alternative's impact on the California spotted owl, we remind you that the decision by the United States Fish and Wildlife S in February, 2003 not to list the owl was based as much on an assessment of the likely impacts of USFS management on habitat features important to the owl as on a review of demographic information. The demographic picture remains murky – not being able to prove a decline is not equivalent to proving that populations are stable – yet the preferred alternative removes nearly all the safeguards established in the 2001 ROD that the USFWS singled out in its decision not to list. The preferred alternative seems to guarantee another petition to list, one which will be difficult to deny on the basis of logic already employed by the USFWS.

4. The USFS analysis alternatives fail to address the real resource and institutional challenges of the Sierra Nevada. After years of involvement in the Sierra, it appears to us that real solutions to the management of the Sierra

Nevada must include a) flexibility coupled with accountability, b) continuous monitoring and development of new understanding, and c) financial linkages to the multiple beneficiaries of the Sierra.

Sustainable management certainly requires the ability to alter regional prescriptions to fit local conditions. But it also requires a mechanism that ensures that those local changes, taken together, still achieve the regional goal. Unfortunately, the preferred alternative creates license rather than flexibility by relaxing Standards and Guidelines over millions of acres of land with no mechanism to ensure that desired future conditions, especially those that are best expressed at a regional scale, will ever be achieved.

In our experience, the fundamental scientific problem in Sierra forest management is our continuing ignorance regarding the status of old forest species and particularly their response to fuels treatments The solution therefore requires a systematic attempt to understand how different fuels treatment affect **both** fire and species' behavior. Yet the preferred alternative fails to outline a robust strategy for the development, application and inclusion of new knowledge and changing conditions.

Finally, we find that the cost of fuel management in the Sierra is the central implementation issue. Indeed we could imagine a range of alternatives that epitomizes options in the extent of needed fuels treatments and the variety of funding sources. Such a range of alternatives would allow the public to consider, and agency managers to pick, an optimal level of timber harvest needed to achieve fuels management goals in the light of other funding opportunities. Yet the EIS fails to illuminate the options available to deal with funding. Instead, it promotes a single silvicultural option as the answer to a complex administrative issue.

As you see, California has deep reservations on a number of grounds regarding the SEIS. As I began, however, I want to reiterate our desire to work with the USFS on the development and implementation of projects in the wildland-urban intermix of the Sierra Nevada. We are confident that, should we succeed with collaborative adaptive management in the WUI, the path to sustainable management of the entire Sierra Nevada will become clearer.

Yours sincerely,

Mary D. Nichols
Secretary for Resources

Attachments

cc: Dale Bosworth, Chief, USDA, Forest Service
Mark Rey, Undersecretary, USDA
Senator Diane Feinstein
Senator Barbara Boxer

Comments of the California Resources Agency on the Sierra Nevada Forest Plan Amendment Draft Supplemental Environmental Impact Statement June, 2003

In January 2001, after more than 10 years of planning and review, all supported by millions of dollars of taxpayer money, the Pacific Southwest Region of the U. S. Forest Service issued its final Sierra Nevada Forest Plan Amendment Record of Decision (the Framework ROD). It employed a cautious approach to fuels management in areas thought to be important to sensitive species and authorized a science-based process for changing that approach when necessary. The result represented a balance in which no single forest value trumped the others, with the possible exception of fuels management immediately adjacent to private lands. The Standards and Guidelines (S&Gs) in the Framework ROD were certainly not perfect for every site in the Sierra – an impossible standard – but the decision incorporated the best thinking of hundreds of dedicated scientists and forest planners along with enormous public input and contained within it methods for its own refinement.

The USFS commitment to the Framework ROD was shallow and short-lived. On November 16, 2001, the Chief of the Forest Service completed his review of the appeals on the SNFPA. The Chief affirmed the SNFPA but directed the Pacific Southwest Region to review three elements of the SNFPA along with concerns raised in the appeals. On December 31, 2001, in response to the Chief's appeals decision, the Pacific Southwest Regional Forester proposed an action plan for conducting the review of the ROD to implement the SNFPA. The SNFPA Review Team concluded its review in March 2003 with a final set of recommendations for "improvements" to the Regional Forester. While the correspondence associated with these events repeatedly stresses "refining the decision", it has become clear that the "certain aspects" targeted by the review constituted nearly the entirety of cautious approach established by the Framework. Under the guise of a supplement, the USFS is proposing an entirely new approach.

The Attorney-General of the State of California has submitted comments which detail our shared concerns regarding the legality of the proceedings pursued by the USFS since January, 2001. The comments of the California Resources Agency complement those of the Attorney-General and of other state agencies by focusing on the factual basis of the purpose and need, the rigor and credibility of the environmental analysis and the existence of management options that promise to solve the problems of the Sierra Nevada, yet remain unexamined by the USFS.

1. The purpose and need for the action remain unsubstantiated.

We refer you to the comments of the Attorney General of the State of California for a detailed analysis of the considerable legal shortcomings of the DSEIS. In our comments we address the factual basis for the purpose and need, particularly the empirical basis for judging the performance of the Framework ROD, the interpretation of demographic data on the spotted owl, the basis for assertions regarding fire behavior and other concerns.

a. The empirical basis for review is virtually non-existent

Early in the Review Team process the State of California asked for a detailed list of all the projects implemented under the 2001 ROD that could serve as the evidentiary basis for changing the ROD. Though we asked for this list repeatedly, the USFS never provide to us this most basic part of the record. Both the Resources Agency and the Office of the Attorney-General were forced to analyze letters sent by the District Rangers to the Regional Forester in order to quantify the nature and number of projects implemented by the USFS during the two and a half years of Framework implementation.

From the letters, we could determine only two Ranger Districts that had begun implementing projects under the S&Gs of the Framework ROD with perhaps three other Districts that had adapted previously planned projects to meet the new decision. While this lack of activity is troubling in itself, particularly in light of the Framework ROD's approval of aggressive fuels treatment in the defense zone, the paucity of projects simply provides no empirical basis for assessing the feasibility of the ROD.

The letters nonetheless provide important insights in the origins of the review and the subsequent DSEIS. As one Ranger wrote,

> *"Although we have not yet implemented a Framework project, my experience crafting alternatives to address fuels, forest health and wildlife habitats (pre-Framework) tell me that ... we will have difficulty meeting the intent of more old forest."*

While we respect the professional judgment of the Rangers, an assessment of "difficulty" hardly compels one to conclude that the Framework cannot be implemented and therefore requires wholesale revision, as the Review Team and the DSEIS ID Team simply assumed throughout their work.

b. The new information on spotted owls does not markedly change the decision environment for the USFS.

The DSEIS draws the wrong message from the little new information that exists with respect to the demographics of the California spotted owl. Since the cautious approach authorized by the Framework ROD is predicated principally on the precarious status of the California spotted owl, adopting a less cautious approach requires some proof that the California spotted owl is in less dire straits than previously believed.

The DSEIS proposes new demographic data as providing that proof. The table below (taken from the DSEIS) shows the rate of population change for five study areas, as estimated by two different methods:

Table 3.2.2.3a. Comparison of Lambda (λ) Utilizing two methods, Projections Matrix and Capture-Recapture.

Study Area	Years	Projection Matrix		Capture-Recapture		
		λ	95% CI	λ	SE	95% CI
Eldorado	1986-1998	0.93		1.042	0.047	0.950-1.133
Lassen	1990-1998	0.923	0.888-0.958	0.985	0.026	0.934-1.036
San Bernardino	1986-1998			0.978	0.025	0.929-1.026
Sierra	1987-1998	0.898		0.961	0.024	0.915-1.008
Sequoia/Kings	1988-1998	0.94		0.984	0.047	0.892-1.076

In contrasting the two different analysis methods, the DSEIS states (p.112)

> *" ...both methods show a declining trend in populations. The capture-recapture method indicates that the rate of decline may not be as great as originally predicted. However the capture-recapture method is not statistically different than λ = 1."*

That the population is not declining as fast as previously thought hardly seems a firm basis for dumping a cautious approach to owl habitat.

Similarly the inclusion of 1 within the 95% confidence interval for λ is not a strong basis for eschewing caution. The 95 % confidence interval simply means that given the variation in the data, we have a 95% chance of including the real λ within that range. It is plausible that λ could be greater or equal to one (meaning a stable or increasing population), but given that most of the CI lies below 1 it is certainly as plausible the true value for λ is less than 1.

Given the management situation one ought to ask if it is more likely that the populations are declining, stable or increasing. If we accept as a null hypothesis that λ = 1, then the t statistic and associated α and β levels for the four populations that are likely to be declining (the Eldorado population appears more likely to be stable or increasing) are

Study Area	T statistic	1 - α	α	1-β
Lassen	0.577	~0.7	~0.3	0.26 (|λ= .975)
San Bernardino	0.880	~0.8	~0.2	
Sierra	1.625	~0.95	~0.05	
Sequoia/Kings Canyon	0.340	~0.6	~0.4	0.10 (|λ= .984)

If we assume that the populations were stable (λ= 1) then the likelihood that the observed λ, all of which are less than 1, occurred simply by chance is given by α. That is to say, the likelihood that the Lassen study area really has a stable population and that the estimated λ (0.985<1) just occurred by chance is around 30%. Thus it is relatively unlikely (30%, 20%, 5%) that we would have found these estimated lambdas for the Lassen, San Bernardino and Sierra study areas if in fact the populations were stable. While we cannot assert unequivocally that the populations are declining (that assertion, more typically the goal of research, requires α's in the range of 0.025 or less), the data suggest that it is relatively improbable to have found these lambdas if the populations were stable.

In addition, although we are deeply interested in detecting declining populations, it is relatively unlikely that these data and tests would have permitted us to detect them. The ability of a statistical test to correctly reject a false hypothesis (in this case, to reject the hypothesis that λ = 1, thereby detecting a declining population) is labeled the power of the test (1 – β). The generally desired power of a test is 0.80 – one has an 80% chance of correctly rejecting a false hypothesis. If in fact the true λ for the Lassen, San Bernardino and Sierra study areas were the average of the three (0.975), the typical test for significance (i.e. what the USFS was doing with the CI) has a very low power of 25%, that is, has only a one in four chance of correctly labeling as declining a population that is in fact declining.

Thus the data seem to us ambiguous and therefore do not markedly change the decision environment of the USFS from what it was prior to the Framework ROD: while we cannot assert that the populations are unequivocally declining, the estimates that indicate decline are relatively unlikely to have occurred by chance alone in 3 of the 5 study areas. Furthermore, should the populations truly be declining, the data and tests used would have been unlikely to detect them. A cautious approach still is warranted.

As so much depends on these data, with considerable social costs associated with errors in either direction, we wonder why the reduction of scientific uncertainty itself was not raised within the purpose and need, with alternatives created expressly to reduce that uncertainty over time, thereby allowing more finely-tuned management to emerge over time. We will return to this theme later in our comments.

A final note on the owl: citing the decision of the USFWS not to list the California spotted owl as a basis for relaxing forest management constraints, when in fact that decision is in large measure based on the existence of those very constraints, is the height of sophistry, bordering on deception.

c. The analysis cited by the DSEIS as indicating the ineffectiveness of Framework ROD's fuel treatments in fact shows quite the opposite.

The DSEIS predicates changes in forest management by citing p. 45-51 of the Review Team's analysis of the ROD which purportedly showed incompatibility with National Fire Plan, manifested by supposedly high costs and low effectiveness of fuels treatments.

With respect to the first NFP goal (which involves reducing acres burned by wildfire), the Review Team report states (pp. 46 - 47)

> *"One of the measures of success…in attaining this goal is the number of high severity acres burned by unplanned and unwanted wildland fires. The analysis of the Middle Fork Cosumnes landscape provides evidence that the current direction will perform poorly under this measure since successful performance is predicated on reducing the number of acres burned."*
>
> *"…the Review Team's spatially explicit analysis of the Middle Fork Cosumnes landscape…provides clear evidence that implementing the fire and fuels strategy under the existing suite of ROD standards and guidelines will not significantly reduce wildfire size and intensity across the bioregion.*

However, when one examines the Middle Fork results given earlier in the Review Team document (pp.28-29) no such clear evidence appears. The results, such as they are, support quite the opposite conclusion, that the current direction WILL reduce the numbers of acres burned. The analysis cited consists of one ignition modeled with and without fuels management as dictated by the ROD within one 50, 000 acre watershed, chosen explicitly because it, unlike many other watersheds in the Sierra, had not seen a major fire in recent years.

Without the ROD fuels treatments the modeled fire burned 11,781 acres in three periods while with the ROD treatments it burned 8,593 acres. The extent of area burned with lethal and mixed lethal results also declined with the ROD treatments.

Thus the evidence cited contradicts the assertion regarding the ineffectiveness of the ROD's fuels strategy made by the Review Team which did not however prevent that assertion from being carried on in the DSEIS. Furthermore, even if the results had supported the assertion, modeling one ignition within a single watershed covering less than one-half percent of the land area of the National

Forests in the Sierra and chosen exactly because it was NOT representative is meaningless as a basis for assessing the ROD's impact on the bioregion over any span of time.

Yet this entirely unsubstantiated claim of ineffectiveness has become an article of faith within the USFS and has been carried on through subsequent analyses that seek to estimate the extent of burning at the regional level. Estimates of the acres burned by wildfire under the Framework ROD have inexplicably shifted upward between the analysis of the FEIS in support of the Framework and the current DSEIS.

In the FEIS analysis, the preferred alternative (PREF) trends up from ~62,000 acres per year for the first decade, then drops below 60,000 acres per year for the next 6 decades, in contrast to the ever increasing number of acres burned under the no-action alternative (MLV) (see figure 1).

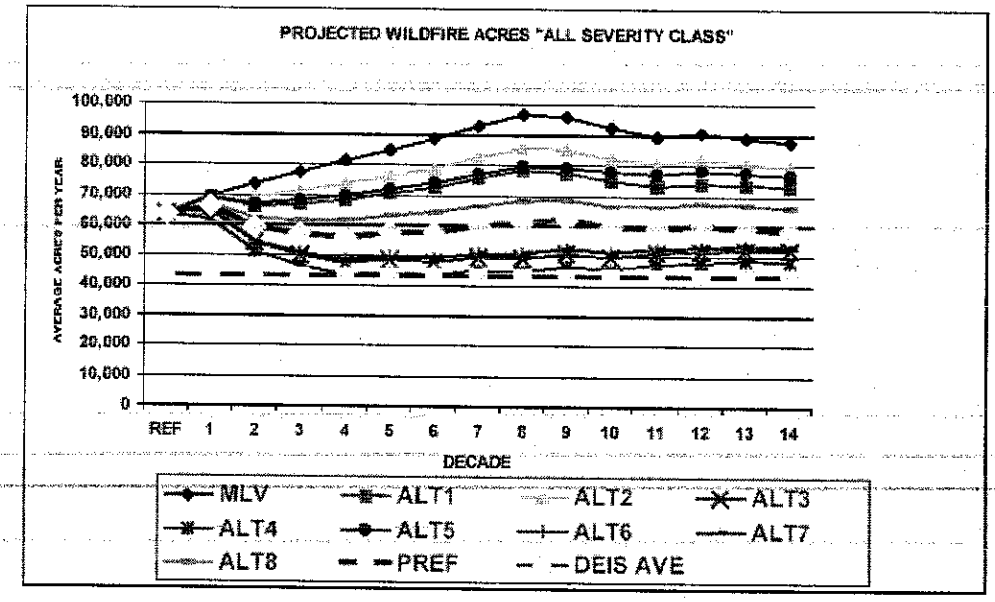


Figure 1 taken from FEIS Vol. 2, Chapter 3, p. 293.

Yet the comparable analysis in the DSEIS shows quite a different result. In this analysis the number of acres burned under the ROD's preferred alternative, now labeled S1, increases and then stays above 60,000 acres over the entire planning horizon.

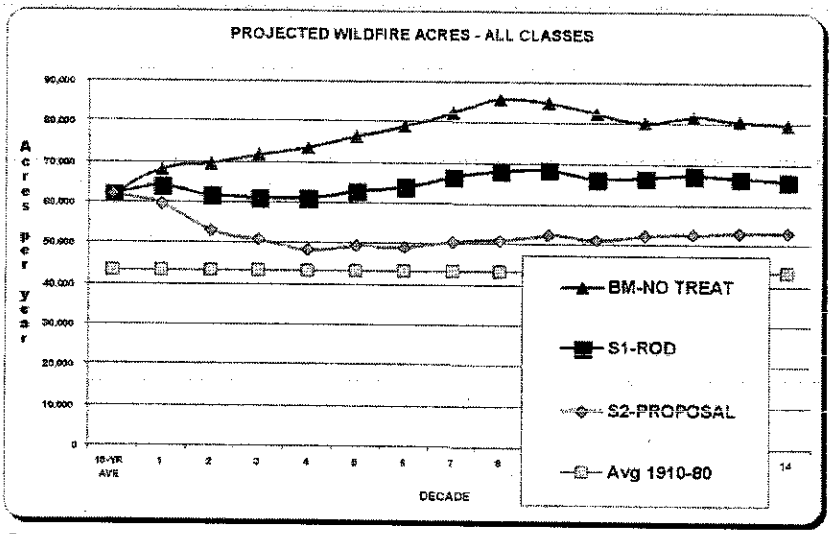


Figure 2 taken from SEIS p.162

This change in assessment of the ROD is clearly reflected in the assertion by the Review Team (p. 47) that

> *"on the Eldorado National Forest the number of acres burned by wildfire is projected to increase to over 30,000 acres within 30 year under the current direction."*

Setting aside for the moment the issue of how a single NF could possibly have nearly half of all the acres projected to burn within the Sierra, it remains unclear why the DSEIS changed the overall estimate of acreages burned under the ROD. It appears again that the ROD was simply declared ineffective and linear programming did the rest.

It should be noted that regardless of which analysis one uses – that of the FEIS or that of the DSEIS - the ROD is clearly effective in reducing the extent of area burned when compared to no action whatsoever. The FEIS found that it would be effective in reducing burned acres below current levels as well. The DSEIS clearly asserts that it will not reduce burned acres below current levels but it does so without presenting any evidence, the Review Team report notwithstanding. Consequently we see no basis for asserting that the ROD does not meet the first goal of the NFP.

We accept as self-evident that other prescriptions may be more effective than the ROD is dealing with wildland fuels. The treatments called for in the ROD for the Defense zone are certainly more effective than the S&Gs for areas outside the defense zone. But the burden of proof is on the USFS to show that those more effective fuels treatments do not at the same time jeopardize sensitive species.

d. The assertion that the Framework ROD is inconsistent with Goal 2 of the NFP is unfounded.

Goal 2 on the National Fire Plan is to reduce hazardous fuels. Its implementation outcome is

> *Hazardous fuels are treated, using appropriate tools, to reduce the risk of unplanned and unwanted wildland fire to communities and to the environment.*
>
> *From http://www.fireplan.gov/reports/11-23-en.pdf*

Performance measures include:

> *a) Number of acres treated that are 1) in the Wildland Urban Interface or 2) in condition classes 2 or 3 in fire regimes 1, 2, or 3 outside the wildland urban interface, and are identified as high priority through collaboration consistent with the Implementation Plan, in total, and as a percent of all acres treated.*
> *b) Number of acres treated per million dollars gross investment in Measures a. 1) and a. 2) respectively.*

The Review Team says nothing regarding the Framework's program in the wildland urban intermix but does however take aim at treatment costs (p.47, Review Team report):

> *"outside [the defense zone] the current standards and guidelines result in higher cost treatments….. treatment costs approximately doubled under current SNFPA direction."*

We see no evidence of any such doubling of costs.

- The FEIS (vol. 2/cptr 3 p. 300-301) lists per acre costs as $700 for manual and $400 for mechanical

- The Review Team report (p. 43) list regional average per acre costs as
  -$344 for mechanical service contract with wood removal
  -$445 for mechanical service contract without wood removal
  -$600 for manual
  -sets out a range of costs for ROD prescriptions in the Middle Fork analysis as ranging from $361 to $787 per acre.

- The SEIS (p. 165) list costs as
  -S1 (current direction) - mechanical , >35% slope - $600
  -S1 - mechanical, <35% slope - $350 acre
  -S2 - mechanical, >35% slope - $550 ("greater operability')
  -S2 - mechanical, >35% slope -$350

Despite the rather unnerving tendency of the USFS to use different numbers each time it considers the problem even though very little has happened in the field to justify any changes in estimated costs, the per acre costs for mechanical treatment do not appear to differ greatly from the FEIS to the Review Team report to the DSEIS.

When the entire fuels management program costs are considered, the data again contradict the assertion that costs doubled. In the FEIS the preferred alternative, modified 8, treats 68,928 acres mechanically each year in the first decade (p. 297) for a total cost of $30,982,470 per year (vol. 2/cptr 3 p. 301), for an average cost of $450 per acre. The DSEIS S1 (which is purportedly the same formerly preferred alternative) mechanically treats 1,566,382 acres and uses prescribed fire on 675,830 acres (DSEIS p. 164) over some unspecified time frame (presumably a decade) at total cost of $54 million/year.

Note that the annual acres treated mechanically almost doubles from the FEIS to the DSEIS, even though they are both presumably analyzing the same alternative. The DSEIS gives no indication of why these numbers changed so dramatically. This total cost works out to $240/ac if one assumes a 10 year horizon. If one uses the Review Team estimate for prescribed fire of $175/acre, the costs for the mechanical treatments alone are around $42 million per year. Indeed, $42 million per year for mechanical treatments is more than $31 million per year, but it 1) poses an increase of 35 % not 100% as claimed by the Review Team, 2) is the result of a near doubling of the estimated annual acres treated (from 68,928 to 156,638), resulting in 3) an even lower per acre cost ($269/acre).

Yet the Review Team, using the single Middle Fork Cosumnes analysis, states (p. 43-44)

> *"average costs were projected at $361 to $787 per acre. While this is only one analysis, we believe it supports the information provided by the rangers. That is, that the SNFPA standards result in higher average treatment costs."*

These statements are simply unsupportable on the basis of the evidence: the average costs used by the USFS have not changed dramatically from the ROD through the Review and into the DSEIS. It is quite true that the revenue that would be generated with more aggressive timber harvest would offset more completely the costs, but that offset was known at the time of the ROD. Nothing indicates that the USFS found out upon implementation (which has not occurred) that the costs for the ROD were higher per acre than estimated at the time of the ROD.

The Review Team goes on to explain (p. 47) that if the costs per acre go up, the number of acres that can be treated goes down. This statement is of course

obvious, but in no way proves that the Framework ROD is inconsistent with the National Fire Plan. The NFP performance measures set no standard regarding the cost per acre of fuels treatment but simply requires that they occur, with lower costs per acre, all other things (such as species habitat protection) being equal, presumably better.

While we find the performance and cost analyses of Framework ROD fuels treatments muddled and contradictory, we nonetheless concur that the extent, performance and cost of fuel treatments constitute a central implementation issue. We wonder, instead of responding to the issue of cost, however ineffectively raised, with a silvicultural solution, the fiscal performance of which is mentioned only once in the DSEIS (p. 165), why did the USFS not raise cost directly within the purpose and need and develop a range of alternatives to cover the costs? All parties to the conflict over the management of the Sierra Nevada would have benefited enormously from an honest and wide-ranging exploration of the costs of fuels management and the various funding options. The DSEIS missed a key opportunity by focusing on a narrow, single silvicultural answer to a complex institutional issue.

e. Experience with the Defense Zone over the past two and a half years indicates that something other than S&Gs or costs is limiting USFS action.

The Review Team did not contest that the Framework ROD was in compliance with the National Fire Plan with its aggressive fuels treatments within the wildland urban intermix (WUI). It found as well that the ROD allowed for technically and economically effective treatment in the defense zone.

We agree, and wonder why so little has happened within that zone over the past two and a half years, even as the NFP has funneled $40 and 44 million into the USFS in California during FY 2001 and 2002? Beyond the availability of appropriated funds, the ROD S&Gs for the Defense can be implemented with commercial timber sales. CDF analyses of the public and private defense zone within the wildland urban intermix of the Sierra show nearly 50% to be in mature conifer stands. The USFS defense zone which covers 364,000 acres certainly has a higher than average incidence of mature timber, meaning that more than 182,000 acres of timberland could have been treated with commercial timber sales of trees up to 30" dbh since the ROD, generating considerable revenues for fuels treatment elsewhere in the forest.

To our knowledge, few if any such sales have occurred. The inability of the USFS to execute timber sales not unlike those it now proposes for much larger areas far beyond the Defense zone leads us to believe that the factors limiting the USFS response are not treatment effectiveness and cost. We wonder if the true constraints on USFS action, that is, the true purpose and need in the Sierra, are not something other than those factors listed in the DSEIS.

2. The preferred alternative is a major change in direction with significant unexamined assumptions and unanalyzed impacts.

Once again we refer you to the comments of the Office of the Attorney General of the State of California which find that such a large change in direction requires something other than an SEIS. Our concerns involve the open-ended nature of the proposal and the absent or uninformative analysis of its impacts.

a. It is not a refinement but a replacement of the Framework ROD.

The new preferred alternative, S2, maintains the land allocations established by the Framework ROD but erases nearly all distinctions in the S&Gs that the Framework ROD created to reflect the different emphases of the land allocations. Under S2, the same S&Gs apply to all lands except PACs and Defense zone. Arguing that this approach maintains the important distinctions in the Framework ROD is akin to arguing that you can get any color car you want, so long as it is black.

Beyond that, the new desired future conditions (DFCs) recently promulgated by the ID Team for those lands still labeled as Old Forest Emphasis Area (OFEA) and General Forest, which together total millions of acres, are taken from those listed for Alternative 6, not modified 8, in the FEIS. Thus for a large portion of the NF in the Sierra, the DSEIS would establish different DFCs that those established by the ROD. This is akin to stating that we are going on the same trip but to a different destination.

Other recent communications from the ID Team regarding silvicultural S&Gs in Old Forest Emphasis Areas and General Forest indicates a willingness to change S&Gs even beyond that which was done between the FEIS and DSEIS. For instance, the ID Team appears to be considering the use of group selection in SPLATs associated with OFEA, which by the definition of group selection logically entails the harvest of trees greater then 30 in dbh, a limit heretofore considered sacrosanct. At this point we cannot confirm that the ID Team is in fact going to propose the harvest of trees greater than 30 in dbh in group selection harvests, but should the ID Team do so in the FSEIS it is inconceivable that such management could be considered a refinement of the ROD.

b. The DSEIS analysis mischaracterizes S1.

Beyond the issues noted above regarding fuels management, we find that the DSEIS analysis mischaracterizes the Framework ROD in at least three ways.

First we have serious concerns regarding the data used to categorize management options in the Middle Fork Cosumnes model. This concern is

relevant in that the results of the Middle Fork Cosumnes model form (inappropriately, in our view) the basis for many of the conclusions reached by the Review Team and memorialized by the DSEIS. The canopy closure and average dbh within stands determine the allowable prescriptions. The allowable prescriptions then determine the overall physical, biological and fiscal performance of the activities. Different vegetation datasets would necessarily lead to different estimated outcomes for the same alternative. We are concerned that potential inaccuracies of the vegetation dataset used for Middle Fork Cosumnes model may have introduced a systematic bias into the results which has subsequently skewed all regional scale analysis.

Second, we have serious concerns regarding assumptions by the Review Team that within stands with 40-60 % canopy closure in which the Framework ROD prescription that allows removal of 12 dbh trees, with incidental harvest of trees up to 20 in, this allowable prescription collapses back to a biomass treatment with removal limited to trees less than 6 in. This single assumption eliminates the commercial component of treatments over large areas of the forest, yet is based on an assumption that line officers cannot distinguish differences in canopy closure within the 40-60% class. This assumption elevates a transient technical difficulty involving quantification of canopy closure to the level of a fundamental determinant of USFS management over millions of acres.

Third, we strenuously object to the assumption by the Review Team and carried on by the DSEIS that any change from the S&Gs under the Framework requires inordinately expensive research. The Framework ROD (p. 15) states

> *"Projects that seek variances form the standards and guidelines will be permitted if they are part of a formal adaptive management research project or administrative study done in conjunction with the Pacific Southwest Research Station or another recognized scientific research institution."*

While the FEIS devoted some considerable text to adaptive management, the governing legal decision document, the ROD, provides no further guidance regarding the nature of a formal adaptive management research project. It appears to us that the Region has had considerable latitude since January 2001 to define the nature of formal adaptive management but has chosen instead to pursue widespread relaxation of S&Gs as a quicker route to flexibility. Through the narrow pursuit of agency prerogative, we believe that the USFS continues to miss important opportunities to define and implement adaptive management, an innovation that is seen as central by nearly all the stakeholders in the Sierra.

c. The DSEIS proposes wholly new categories of activity but fails to analyze their impacts.

In addition to strategically-placed area treatments, which were part of the Framework ROD, the preferred alternative (DSEIS, p. 47) includes a new category of activity not included in the ROD or the FEIS:"forest health treatments". The DSEIS offers no guidance regarding the criteria to be used for engaging in forest health treatments which can be implemented using the same, presumably revenue-generating, prescriptions for fuels treatments. The DSEIS notes that up to 3.2 million acres of timberland, much of it with stand conditions conducive for owls, could be the target of such treatments (DSEIS, p. 187). Although the text suggests that only a small extent will be treated due to budget limitations, if the treatments are revenue-generating (which is presumably the reason for their use in lieu of S1), why would budget limit forest health treatments? And if budget ceases to be a constraint, no guidance contained within the DSEIS sets any bounds on the scale of a forest health treatment program.

We do not disagree with the assertion that forest health is a critical issue. However, the purpose of an EIS is to provide guidance for the implementation of the program based in part on an assessment of its potential impacts Neither guidance nor impact assessment related to forest health treatments are presented in the DSEIS.

d. The DSEIS increases the risk experienced by a state-list endanger species, the willow flycatcher.

While our comments focus on forest fuels and wildlife species, the preferred alternative impacts other values as well. We specifically refer you to the comments of both the California Department of Fish and Game and Partners in Flight, regarding the heightened risk posed by S2 to the willow flycatcher.

e. The DSEIS systematically eliminates all the S&Gs that the USFWS found protected owl habitat to such an extent that listing was not warranted.

Lastly, though we will leave to others the detailed assessment of the preferred alternative's impact on the California spotted owl, we remind you that the decision by the USFWS in February, 2003 not to list the owl was based as much on an assessment of the likely impacts of USFS management on habitat features important to the owl as on a review of demographic information.

The demographic picture remains murky – not being able to prove a decline is not equivalent to proving that populations are stable – yet the preferred alternative removes nearly all the S&Gs established in the 2001 ROD that the USFWS singled out as safeguards in its decision of February, 2003 not to list the species. The preferred alternative seems to guarantee another petition to list,

one which will be difficult to deny on the basis of logic already employed by the USFWS.

The key elements of the USFWS assessment (taken from the Federal Register Vol. 68, No. 31):

The prescriptions for the Defense zone under the Framework ROD are likely inimical to owls (p. 7600):

> *"The primary area where fuel treatments would remove large trees and reduce canopy cover to the point of unsuitability for owls would be the Defense zone of the wildland/urban interface."*

In the proposed preferred alternative , S2, the forest-wide prescriptions (i.e. for all lands other than PACs, including old forest emphasis areas and home range core areas; pp. 307-309 of the DSEIS) are more aggressive than the prescription for the Defense zone under the ROD. It is difficult to imagine how an analysis using the precepts of the USFWS would not find the DSEIS prescriptions extremely threatening to the owl as these more aggressive treatments, once confined to 0.25 miles around settled areas in the ROD, now apply to fuels treatments across most of the land base.

The USFWS found merit in the Framework ROD's S&Gs outside the defense zone (p. 7600):

> *"The primary aspects of fuels treatments that would potentially affect spotted owl habitat are (1) removal of trees larger than 51 cm (20 in.) diameter which may reduce the number of existing and potential nesting trees and large diameter snags and logs with an accompanying reduction of canopy closure; and (2) removal of trees 30 – 51 cm (12 to 20 in.) in diameter, with resultant reduction in canopy closure and perhaps to a lesser degree, reduction in numbers of existing nest trees and recruitment of potential nesting trees and large diameter snags and logs."*
>
> *"Throughout the area of the SNFPA, a general S&G precludes the removal of any tree over 76 cm (30 in.) dbh. The prescriptions that would allow any extensive harvest of trees over 51 cm (20 In.) dbh… are confined to the Defense zone….most of the effects of the SNFPA on large trees are confined to the Defense zone…*

The forest-wide prescription of S2 conserves the 30 in dbh limit, but allows the harvest of trees up to 30 in dbh throughout the forest, provided that one leaves those larger trees that contribute 40 % of the pre-treatment basal area. The DSEIS presumes that the basal area constraint would frequently lower the effective harvest limit to a dbh smaller than 30 in. but the margin of safety

provided by the Framework ROD certainly disappears under S2. Impacts on large trees under S2 will occur throughout the forest.

> *"Therefore, since the effects on large trees are limited, most of the effects of the SNFPA would be anticipated to result from the harvest of trees in the 30 to 51 cm (12 to 20 in.) size class….As a result of the [nesting site and PAC] protections, the primary effect of removal of trees 30 to 51 cm (12 to 20 in.) dbh will be in foraging areas, rather than at nest sites. [Because of the prescriptions associated with home range core areas] effects on the spotted owl of removal of trees 30 to 51 cm (12 to 20 in.) are expected to be limited."*

This conclusion cannot apply to S2 are the removal of trees 30 to 51 cm (12 to 20 in.) is clearly allowed in foraging areas.

The USFWS further states (p. 7601):

> *"Another important effect of fuel treatments may be reduction in canopy closure…*
>
> *"As a result of the [range of forest wide canopy reduction constraints] opportunities for reduction of canopy closure by more than 10 percent outside the Defense zone would be limited to areas outside home range core areas…*
>
> *"The analyses of the data by both Hunsaker et al. (2002) and Lee (2001) found that canopy cover of at least 50 percent was desirable [for foraging]; that level would be maintained by the S&Gs in all areas but the Defense zone."*

The forest-wide prescriptions of S2 allow reductions of up to 30 percent in canopy closure with a lower limit of 40 percent. Thus virtually all of the S&Gs of the Framework ROD that the USFWS deemed as protection for key habitat elements for the spotted owl are eliminated in S2.

Even the DSEIS anticipates the potential negative impacts on owl habitat: the DSEIS (pp. 186) shows declines in owl habitat over the next twenty years. It anticipates an increase in habitat in year 130 – a result we find both suspect - we have serious doubts regarding the assumed ineffective of Framework ROD fuels treatments – and irrelevant – climate change and random chance render projections 130 years in the future absurd as a basis for a decision today. What remains clear is that S2 will likely destroy owl habitat over the next twenty years.

3. <u>The USFS should include in its analysis alternatives that meet the real resource and institutional challenges of the Sierra Nevada.</u>

After years of involvement in the Sierra, it appears to us that real solutions to the management of the Sierra Nevada must include a) flexibility coupled with accountability, b) continuous monitoring and development of new understanding, and c) financial linkages to the multiple beneficiaries of the Sierra. S2 creates license at the local level (i.e. flexibility without accountability), make no programmatic commitment to monitoring and adaptive management and relies entirely on the forest to pay for a century of fuels buildup. If the USFS insists on pursuing the current NEPA analysis (which would not be our choice) we believe that a variety of other options would provide a better return on investment than S2.

a. <u>The USFS should fully develop Alternative 2.2.6 – Make Minor Changes to Individual S&Gs – as it is a logical response to the problems highlighted by Review Team analysis.</u>

The Middle Fork Cosumnes modeling framework provided a credible and transparent means of investigating the performance of the Framework ROD on a specific landscape. While we have serious concerns regarding the extrapolation of Middle Fork Cosumnes results to the larger Sierra region, we found the analysis of that particular waterscape extremely illuminating. It had the potential to highlight the impacts of spatially-explicit management proposals on subsequent fire behavior, stand development, wildlife habitat and revenue.

The results of the Middle Fork Cosumnes analysis, at least as far as the Review Team staff was able to pursue it, indicated several S&Gs that could have problematic in that watershed (pp. 33-35, Review Team report). Among these were S&Gs - specifically those that the Review Team contended caused threat zone prescriptions to collapse from commercial timber harvest to biomass treatments with severe financial consequences – which if changed would have led to entirely different conclusions regarding revenue shortfalls. At the same time the modeling procedure provided a mechanism to test alternative prescriptions (such as altering problematic S&Gs) which could either have been considered non-significant amendments to the forest's plan or, should they have been more controversial, the focus of a formal adaptive management project. Had the ID Team used the Middle Fork methodology on a range of representative watersheds across the Sierra, it is at least possible that it could've developed a substantive case for the alteration of several specific S&Gs across the whole region.

The reason given by the DSEIS for not considering Alternative 2.2.6 – that it does not respond to the purpose and need – is without basis as the purpose and need are largely unsubstantiated. The DSEIS cites the "prescriptive nature of existing management direction" as a problem yet we find no evidence indicating that "prescriptive-ness" is a generically bad thing when speaking of guidance. It cites "economic inefficiencies" when in fact no standards for efficiency can be

located, and in face of the possibility that small changes in S&Gs could have a large positive impact on revenue. It cites "complications with implementation" which are nowhere explained in the Purpose and Need of the DSEIS. Finally it cites "questionable effective of fuels treatments", a conclusion for which we can find little support within the DSEIS.

b. The USFS should formalize the Middle Fork analysis process as an alternative focused on developing locally appropriate management prescriptions

Formalizing the Middle Fork analysis procedure and applying it wherever local managers suspected that Framework ROD S&Gs were inappropriate appeared to us to be an extremely promising route for the USFS in that it linked flexibility to rational analysis process. Despite numerous suggestions to the USFS regarding the wider use of this analysis as a solution to its problem (e-mails of 11/18/02, 11/22/02, 12/10/02), the USFS persisted in considering the Middle Fork Cosumnes analysis as a means to demonstrate the existence of systemic problem (which we contend it failed to do) to be solved by reliance on local professional judgment, instead of as a powerful tool by which local interests could examine and adopt changes to the Framework ROD S&Gs.

c. The USFS should investigate a renewed commitment to adaptive management in order to attack the fundamental scientific problem in Sierra forest management: continuing ignorance regarding the status of old forest species and particularly their response to fuels treatments.

The emphasis of the DSEIS is on relaxing S&Gs and returning prerogative to local management and therefore it decreases the emphasis places on adaptive management by the Framework ROD (p. 56, DSEIS):

> *"Under Alternative S2 standards and guidelines consider local conditions, which reduces the need to change management direction through adaptive management projects. However, an adaptive management project is still possible in Alternative 2."*

As the science regarding species response to treatments is ambiguous at best, we are at lost to imagine how local managers will able to craft management appropriate to local conditions with a high degree of certainty that they are not jeopardizing species at the regional scale.

As noted above, we find that the underlying uncertainty regarding the response of sensitive species to fuels management remains as prominent as ever. We also

agree that one should not wait until experiment station-type research reduces that uncertainty to the vanishing point as inaction now carries with it potentially large social costs. The solution therefore requires a systematic attempt to learn-while-doing. Such a wide-spread and systematic linkage of management and monitoring is indeed novel and not a likely choice of an institution that relies on a set of hierarchically tiered decision documents and guides. Yet it is what is required to lower uncertainty and to discover management that is both locally appropriate yet likely to achieve region-wide goals related to habitat.

Collaborative adaptive management provides a framework within which to resolve the "prescriptiveness" that so vexes line managers:

> *"I've stressed the need ...to place more emphasis of the desired condition over a landscape and be very limited on prescribing how to achieve that desired condition....When you try to apply standard prescriptions across a vast area as such as the Sierra Nevada, you're bound to run into problems"*

While conceptually appealing, this approach is of course based on the shaky assumption that we can unequivocally describe for all sites the forest structures that will achieve all our multiple goals. In fact our uncertainty regarding owl habitat requirements, post-treatment stand response and fire behavior is why the Framework ROD used a combination of generalized DFCs and specific prescriptions. We know with great certainty that we wish owls to persist and damage from wildfires to decline. We believe that certain forest structures are conducive for owls and others for lower wildfire intensity but we rely on best management practices as tactics that promise to move us toward our objectives and goals.

Collaborative adaptive management however offers the opportunity to make explicit alternate management proposals regarding the linkage from tactics to objectives to goals, and to treat those management proposals as hypotheses to be tested on the ground. As we noted repeatedly to the Review Team, we did not expect the Framework ROD's preferred alternative to be perfect everywhere. The solution to that problem however was not to relax standards everywhere, but rather to create a process that offered a rational method for assessing and then approving changes to the ROD's S&Gs.

The Resources Agency has invested considerable time and energy in proposing a workable adaptive management program (attached) for the wildland-urban intermix, a relatively large zone within the Sierra where the costs of failure are quite high in terms of both habitat and public safety and where there appears to be the greatest willingness on the part of all parties to experiment. USFS staff has appeared reluctant to adopt this or any other clearly delineated program, though the goals and objectives of the program appear in the DSEIS. While the

USFS would like to achieve the goals and objectives outlined by the State, it appears reluctant to invest the resources needed to obtain the benefits.

d. The USFS should develop a range of alternatives specifically directed at the funding issues associated with fuels management.

The Review Team bases much of it critique of fuel treatments on cost (p. 47, Review Team report) and the DSEIS references " appropriated funds" as a key constraint for both fuels management (p. 165) and forest health treatments (p. 187). Since cost as a major factor, the USFS would have done well to quantify the amount of fuel treatment required to achieve different degrees of control over fire behavior, specify the amount of funding already programmed for the Region under the National Fire Plan and other programs, then outlined a range of alternatives designed to cover the shortfall. In its most stark form such an analysis would have made clear, in the absence of any additional funding, the scale of commercial forest harvest needed outside of the Defense zone to achieve different levels of fuels treatment with their concomitant potential threat to wildlife. At least in that form, we would have found that the three issues of fire protection, habitat protection and cost were honestly and thoughtfully investigated.

We are however convinced that other options exist to cover some, if not all, of the shortfall. First of all, we would quite interested in seeing if the NFP funds allocated to the USFS for California are not in fact sufficient to cover the shortfall. The DSEIS lists the additional revenue generated by S2 over that of S1 to be $26 million per year. The NFP allocated $40 million to California in FY01 and $44 million in FY02. It is not unreasonable to expect an alternative that investigates the degree to which the NFP funding can achieve the goals established for the program in the Sierra.

In addition, the federal Secretaries of Agriculture, Interior and Energy recently signed an MOU

> *"to demonstrate a commitment to develop and apply consistent and complementary policies and procedures across three Federal departments to encourage utilization of woody biomass by-products that result from forest, woodland, and rangeland restoration and fuel treatments when ecologically, economically, and legally appropriate, and consistent with locally developed land management plans"*

While the MOU does not obligate new money, it does commit the three Secretaries to

- *Encourage the production and marketing of electric energy generated from woody biomass resulting from restoration or hazardous fuels treatment…*

- *Explore biomass transportation cost subsidies from the forest to point of use, where doing so saves or avoids higher costs of treatments or fire-fighting in the future.*

Thus it appears to us that due diligence would require the USFS to investigate the opportunities created by the MOU, particularly in light of California's recent adoption of a Renewable Portfolio Standard (SB 1078) which mandates 20% of investor-owned utility electricity to be generated from renewables sources by 2017.

In addition, California voters recently passed Proposition 50 which provides funding for, among other things, watershed management planning and implementation. Section 30945 of the California Public Resources Code establishes a program for integrated watershed management to

> *"improve water quality, protect and restore habitat and fisheries, reduce flooding, control erosion and sedimentation, and improve local water supply reliability through better ground water monitoring, river corridor recreation,* ***forest land and fuel management*** *[our emphasis added], and hydropower management."*

These state-level initiative present yet another way to cover the shortfall. While the USFS could not unilaterally implement an alternative based on these options, it could certainly investigate the development of such an alternative in collaboration with state agencies.

In conclusion, our experience to date with the Review and now the development of the SEIS indicates to us a preconceived management direction to be imposed on the Sierra Nevada and Californians by fiat. This entire exercise has been extremely frustrating as we have seen considerable time, staff energy and resources consumed in an effort to return to a status quo ante, even as the situation the effort purports to address deteriorates though the lack of resources and management attention.

Proposal
From the State of California
for Collaborative Adaptive Management of Fuels and Wildlife Habitat in the Wildland Urban Intermix of the Sierra Nevada

Background

The Resources Agency, State of California, together with the Departments, Boards and Commissions it represents, wishes to support a balanced program for fuels reduction and wildlife habitat management on National Forest System lands in the Sierra Nevada, especially those in the wildland-urban intermix (WUI). Such management is essential for the social, economic and ecological sustainability of the Sierra. The Agency is supportive of the direction in the January 2000 Record of Decision that guides national management for these resources in the Sierra Nevada today. However, the Agency has concerns with some of the changes proposed by the Framework Review Team and now being evaluated in a supplemental EIS project.

We believe that this approach ignores the advice of Drs. Walters, Stewart et al., solicited by the Region, by failing to craft a science-informed participatory process, which they advocated as the best option for the USFS in dealing with the "wicked problem" of managing the Sierra Nevada. The State of California fears that a reliance on the EIS process without a commitment by the USFS to a collaborative adaptive management (CAM) approach will hamper our collective ability to define ecologically and socially sustainable forest management in the Sierra.

To address these concerns, Agency staff has been working with staff from the Forest Service and U.S. Fish and Wildlife Service for several months. While staff has found agreement on the goals and objectives of CAM, considerable disagreement remains about the structure and function of a CAM program, or even the necessity of a program. While the Agency believes that CAM must exist as a program, with the organizational structure and management priority that that implies, Region staff appears unwilling or unable to support CAM in that manner. Our experience with Fire Plan indicates to us that an ad hoc approach to CAM will ensure its failure. Furthermore, for reasons unclear to us, interest in negotiating a mutually satisfactory program to achieve the goal upon which we all apparently agree, appears to be waning. The following four pages describe the current proposal, upon which we appear to agree, and then outline the remaining issues and our proposed next steps.

The Current Proposal

1. The Resources Agency of the State of California proposes that vegetation management associated with the values found within the wildland urban interface (i.e., the "defense and threat zones") identified in the Sierra Nevada by the US Forest Service be managed through a collaborative adaptive management program that includes communities of interest and of place.

2. The public land component of the wildland urban interface (WUI) as currently defined in the ROD consists of approximately 2.5 million acres in the Sierra Nevada, with 340,000 acres in defense zone immediately adjacent (within ¼ mile) to settled areas and the rest in the threat zone (1 ¼ miles beyond the defense zone).
    a. These areas provide important habitat (approximately 200,000 acres of California spotted owl protected activity centers) and other ecologically important values, yet they pose real wildfire threats to life and property in nearby communities.
    b. The wildland urban interface is the focus of the National Fire Plan, the California State Fire Plan and is the area with the greatest degree of consensus on management direction.

3. The goal and objective for CAM are:
    a. Goal: treat vegetation that poses a wildfire threat to communities in a manner that allows, where needed, testing and evaluation of different means proposed to balance wildlife habitat needs with reduction of expected losses to wildfire.
    b. Objectives:
        i. To create prior to the 2004 fire season, a five-year program of action (as defined in section 4) for the WUI associated with at least one at-risk community), and for as many other at-risk communities as is feasible with the resources provided by the agencies
        ii. To fund, implement and monitor the programs of action;
        iii. To use monitoring results to
            1. adjust annually the first five year program of action, and
            2. develop an improved program of action for remaining areas of the WUI for subsequent implementation

4. Programs of action for the WUIs:
    a. will include spatially explicit specification of management prescriptions for both highest-priority and other projects over the WUI.
    b. will be developed with stakeholders in an iterative manner that seeks to locate and quantify potential impacts, uncover potential

conflicts and resolve those conflicts through deletion or redesign of particular projects, the use of mitigation measures, or the development of experimental treatments.

c. will be stored digitally and evaluated in a spatially-explicit, real-time data system to
    i. evaluate thresholds that would be crossed if the program were implemented
    ii. evaluate both individual projects and cumulative effects at multiple spatial scales (landscape/watershed, administrative unit, sub-bioregion, and bioregion).
d. will include post-project implementation monitoring needed to
    i. evaluate achievement of desired future conditions
    ii. assess thresholds and cumulative effects
    iii. inform revision of management plans

Remaining Issues and Proposed Next Steps

Agency and Region staffs appear to agree on the preceding proposals but several serious issues remain. I describe those issues as we perceive them along with proposals for their resolution.

1. Need for a concerted program, not just a set of goals and objectives

While there appears to be agreement on the overall purpose and the need, the Resources Agency finds that the current fuels situation, when coupled with the uncertainties entrained by the SEIS process, demands a high visibility, high priority program, a campaign if you will, to address significant amounts of the WUI as part of implementation of the current ROD. This campaign should of course be consistent with whatever new ROD may be forthcoming. It appears to us that this urgency is not shared by Region staff, who perhaps believes that the SEIS will automatically lead to appropriate management of the WUI. We are considerable less sanguine about those prospects and consequently see a need for an aggressive program now. Unless this program is viewed as a priority by both headquarters and field staff, the refinements needed to make it work will not receive the attention needed.

Proposed Action: The Resources Secretary and the Regional Forester launch a Sierra Nevada Wildland Urban Intermix Program by publicly endorsing the goals and objectives developed by staff and committing to the articulation of a mutually acceptable structure for the program before the end of this fire season.

2. Choosing priority areas

Staff could not find common ground on the structure needed to achieve the objectives. Resources Agency staff proposed a two-tiered system of interagency teams which Region staff found to be too prescriptive. The Region staff proposed to develop structures on an ad hoc basis, an alternative that the Agency staff believed provided no accountability and would not achieve the objectives. All agreed however that focusing on specific parts of WUI was the quickest way to define the appropriate structure and to estimate the resources needed.

Proposed Action: Direct CDF Unit Chiefs, Forest Supervisors and Fish and Game Regional Managers to specify the priority areas of the WUI to be covered in this first campaign and to quantify the resources needed to develop collaboratively a five-year program of work.

3. Need for tools

The Resources Agency is convinced on the basis of long experience with stakeholders that collaborative planning, particularly that which seeks to balance multiple objectives, requires a serious commitment to technical support. The iterations in the design of programs of action are driven by the discovery of impacts of proposed actions and their redress through mitigation prior to the formal NEPA process. Once again, Walter et al. stressed this "iterative analytic-deliberative process" in their report to you. The Region itself has made great strides in developing the tools needed by such collaborative planning, such as the Middle Fork Cosumnes GIS analysis at the District level, and the rapid feedback adaptive management system for regional cumulative effects assessment, yet Region staff appears equivocal about the necessity of widespread implementation and support. While the tools must be embedded within a larger collaborative process to be effective, the collaborative process itself needs those tools and the staff to run them if it is to succeed.

Proposed Action: Direct implementation funds toward the provision of all appropriate tools for project and cumulative effects analysis to the collaborative planning actions in each priority area of the WUI.

4. Need for funding

All agree that funding is the key to the policy dilemma confronting the management of the public lands. The Resources Agency is concerned that the Forest Service sees only one solution – sale of commercial timber – to the funding issues confronting fuels management in the WUI. However, the funding opportunities are much wider: state bond funds, National Fire Plan appropriations, Department of Energy biomass program grants, etc. A collaborative adaptive management approach to the WUI fuels and habitat

issues has a much greater chance of exploring the full range of funding opportunities, including but not limited to commercial timber sales.

Proposed Action: Direct state and federal staff to quantify the amount of funding needed to achieve the objectives in the WUI and the nature and amounts of funding potentially available from state and federal sources.

5. The role of adaptive management

Because uncertainty remains regarding the best way to balance fuels management and wildlife habitat on particular sites, the Resources Agency believes that cooperative research and monitoring of alternative treatment programs is an attractive option to the never-ending legal and political challenges to current management direction, whatever it may be. As we find this problem of uncertainty to be pervasive, the Resources Agency proposes to establish a method of adaptive management that allows all parties to learn, rather than argue, about how the natural system responds to management. We believe that this direction actualizes what Walters et al. proposed to the Region in the face of its "wicked problem": "a significant dialogue between scientists, stakeholders and policy makers."

The Region, while perhaps agreeing with the sentiment, appears to us to consider cooperative research and monitoring an open-end fiscal drain as it has sought consistently to reduce the nature and scope of experimental design, data collection and analysis within implementation. This approach conflicts not just with our assessment of what is needed but also with the advice the Region solicited from Walters et al.

These differences can perhaps only be reconciled by beginning collaborative planning of the WUI and determining early in that process the extent to which adaptive management must be hooked to it.

Proposed Action: Request the University of California to organize scientific participation in the collaborative planning of the priority areas in order to determine the potential nature and scope of adaptive management.

"Cyndy Paulsen"
<cyndy.paulsen@resources.ca.gov>

09/12/2003 03:41 PM

To: <snfpa@fs.fed.us>
cc: "Greg Greenwood \(E-mail\)" <greg_greenwood@fire.ca.gov>, <camille.valencia@resources.ca.gov>
Subject: Letter on DSEIS and Attachments

Please see attached letter and documents.

If you have any difficulties opening these documents, please contact Camille Valencia 916.654.1885 or via e-mail at the above address. Thank you.

Cynthia J. Paulsen
Assistant to the Secretary for Resources
California Resources Agency
(916) 653-7310
cyndy.paulsen@resources.ca.gov


blackwell0903b.pdf


DSEIS_comments.pdf


Proposal for Collaborative Adaptive Management_v95.pdf

SN-1190

September 11, 2003

Jack A. Blackwell, Regional Forester
U.S. Forest Service, Region 5
1323 Club Drive
Vallejo, CA 94592

RE: Draft Supplemental Environmental Impact Statement (DSEIS) for the Sierra Nevada Forest Plan Amendment

Dear Regional Forester Blackwell:

Thank you for the opportunity to review the Draft Supplemental Environmental Impact Statement (DSEIS) for the Sierra Nevada Forest Plan Amendment. We note that the plan for the Sierra Nevada Forests includes the Stanislaus National Forest, which has more than 600,000 acres located within Tuolumne County. The amendment to the Sierra Nevada Forest Plan was developed a few years ago to address the following five very controversial areas of forest management in the Sierra, which had generated public conflict and nearly crippled land use decision making on the National Forests in the Sierras: old forest ecosystems; aquatic, riparian and meadow ecosystems; fire and fuel management; noxious weeds; and lower west side hardwood ecosystems.

In developing the existing amended Sierra Nevada Forest Plan, the U.S. Forest Service set a goal to integrate old forest and hardwood ecosystem conservation with fire and fuels management. The adopted Sierra Nevada Forest Plan was to emphasize moderately active ecosystem restoration, with moderate levels of local flexibility. Old forests were to be managed in a network (about 30 percent of Sierra Forests) of old forest emphasis areas, with prescribed fires to reduce fire hazards and limited mechanical harvest treatments, with the highest priority for commitment of Forest Service resources to fuel reduction in high fire hazard areas. Aquatic and riparian areas were to have setbacks based on the stream type (perennial, intermittent, or ephemeral stream zones, or water body over 1 acre or less than 1 acre in size). Timber harvesting and mechanical fuels treatments were to be prohibited in perennial and intermittent streamside zones. Watershed analysis was to occur in emphasis watersheds. Critical aquatic refuges were to have high priority for watershed restoration, with specific grazing utilization standards in critical aquatic refuges for such threatened species as the Yosemite Toad, Mountain Yellow-legged Frog and Willow Flycatcher. Fire and fuels were to be managed to reduce fire hazards by placing strategic area treatments in large blocks where fuels were to be substantially reduced by prescribed fire and some mechanical treatments in a mosaic pattern on upper south facing and west facing slopes to interrupt fire spread, to mimic natural fir patterns, while meeting the structural standards for California Spotted Owl Habitat. Noxious weed control was a high priority and such weeds were to be eradicated in old forest emphasis areas, emphasis watersheds and critical aquatic refuges. Hardwoods were to be managed to restore blue oak woodlands by limiting fuelwood collection to areas with a crown canopy cover greater than 60 percent. The general public perceived these new policies as positive forest management efforts.

Tuolumne County's interests are best served by a plan that continues to provide for the following:

- to continue to offer the greatest protection for water quality on the Sierra Forests, since Tuolumne County provides clean water for a multitude of water purveyors in 14 water supply reservoirs supplied by U.S. Forest lands, which provides water not just to the County, but to a large area of central California, the San Joaquin Valley and the San Francisco peninsula;

- to continue the highest priority for commitment of U.S. Forest Service resources to accomplish fuel reduction in high fire hazard areas adjacent to the wildland/urban interface, rather than for remote forest areas. This commitment is needed in order to protect the people of the Sierra Nevada and their property, since the total acreage burned by wildfire has been increasing in Sierra Forests since 1982;

- to provide the least possible impact on air quality from particulate emissions (smoke) from burning wild lands, whether set as controlled burns or from uncontrolled causes, because the smoke can especially affect the respiration of the elderly, infirm and small children;

- to protect the remaining rare habitats, such as the 12 percent of the Stanislaus National Forest that is classified as old growth forest. Otherwise more pressure will be placed on working private forest lands in Tuolumne County for the needed preservation of old growth forest as habitat for special status species;

- to offer adequate levels of sustainable forest employment for all forest careers, important to the job base for Tuolumne County;

- to offer an adequate timber supply for the local timber products industry, important to the economy of Tuolumne county;

- to provide stable annual payments from forest receipts in the near future, that are so important to the maintenance of County roads and schools;

- to offer tourists a quality experience for the local tourism industry, which employs more County residents than any other private economic sector;

- to offer tourists and County residents continued opportunities for a variety of recreational uses, including camping, boating, swimming, hiking, riding, biking, snowmobiling, skiing, off-highway vehicle use, and sight seeing;

- to protect cultural materials and sacred sites for our Native American population and County history; and

- to offer summer green-feed for the local livestock industry, when irrigated pasturage is not available in lower elevations on private lands.

The County recognizes that if the Forest Service cannot adequately manage dense forest tangles for fire safety by cutting and constructing fire breaks (including the use of controlled

burns), then the hot, dry summers, steep slopes and summer dry-lightening storms of the central Sierra will take their toll through a pattern of complex fires that destroy critically important wildlife habitat, valuable timber stands and grazing land, leaving important watersheds bare to erode into public drinking water reservoirs, diminishing water quality, reducing the capacity of the reservoirs to hold the public's water, and creating an unaesthetic landscape rejected by tourists and devoid of recreational value.

The County also recognizes that if the Forest Service cannot adequately protect its remaining habitats, including old growth forest ecosystems, lower elevational hardwood forests, meadow systems, aquatic sites, riparian corridors, and the species associated with and dependent upon these habitats, then special status species that depend on these habitats may decline to the point that they become listed as Threatened or Endangered. Thus, they may become a problem for private development, grazing and timber harvesting activities on private lands with similar habitats.

The five main issues chosen by the U.S. Forest Service to address in the alternatives for the Sierra Nevada Forest Plan Amendment have conflicting needs and conflicting advocates. It seems that the adopted amendment to the Sierra Nevada Forest Plan was never fully implemented by the U.S. Forest Service, because lawsuits filed by several groups effectively stalled resource management activities in the Sierra Nevada forests. Likewise, any further amendments to the existing plan may precipitate another round of lawsuits and further stall forest management activities. This is not a healthy situation for the Sierra Nevada forests or for the interests of Tuolumne County, since it prevents both resource conservation and resource utilization. I urge the U.S. Forest Service to look for compromise positions on the most contentious issues, to try to avoid furthering the lawsuit gridlock on these forests.

Tuolumne County has a significant interest in the management of Forest Service lands within our County and places a high value on its working relationship with the Forest Service in planning management strategies to benefit all social, recreational, economic and ecological interests. It is our hope that the management changes planned would be fair and equitable to all the County's interests and that the decision making process will be swift and decisive, to move forest planning projects ahead as soon as possible. Please include our office in the distribution of any Final EIS released for this project.

Respectfully,

Robin Wood, AICP, Senior Planner
County of Tuolumne

cc: C. Brent Wallace, County Administrator
Board of Supervisors

Robin Wood
<RWOOD@co.tuolumne.ca.us>

To: "'snfpa@fs.fed.us'" <snfpa@fs.fed.us>
cc:
Subject: DSEIS for Sierra Nevada Forest Plan Amendment

09/12/2003 04:29 PM

Please see attached comments from the Tuolumne County Planning Division.

Robin Wood, AICP, Senior Planner
County of Tuolumne

<<USFS SNFPAmendLtr.doc>>

USFS SNFPAmendLtr.doc

SN-1276

RESOLUTION NO. 93-2003

RESOLUTION OF THE TEHAMA COUNTY BOARD OF SUPERVISORS

Requesting Regional Forester Blackwell to immediately analyze and select a sustainable alternative for the Sierra Nevada Forest Plan Amendment that meets the social, economic, environmental and fire protection concerns of the citizens and businesses in Tehama County

WHEREAS, The January 2001 Record of Decision for the Sierra Nevada Forest Plan Amendment Final Environmental Impact Statement was appealed by 250 individuals, organizations, Counties and the Quincy Library Group because of its failure to meet the sustainability requirements of the Organic Act, the National Forest Management Act, the Multiple Use Sustain Yield Act and the Herger-Feinstein Quincy Library Group Forest Recovery Act; and

WHEREAS, On November 16, 2001 Forest Service Chief Dale Bosworth affirmed the SNFPA ROD, and directed Region-V Regional Forester Jack Blackwell to commence a review of the ROD for:

- Additional flexibility for aggressive fuel treatments
- New information associated with the National Fire Plan
- Harmonization between the goals of the SNFPA and the H-FQLG Pilot Project; and

WHEREAS, On December 31, 2001 Regional Forester Blackwell appointed the review team and broadened the scope of the review to include the assessment of the ROD on grazing, recreation, and ***impacts to local communities*** and further directed that the review achieve:

- The reduction of "lethal" wildfires for the first decade
- Minimize the risk of escaped-fire effects to communities
- Meet NFP time frames for decreasing the acres at extreme risk to fire
- Develop a defensible space network at the appropriate pace and scale so that the network will be in place within the first decade of the NFP
- Develop defensible space network in cooperation with Fire Safe Councils, communities and private landowners; and

WHEREAS, On May 23, 2002 Department of Agriculture Secretary Veneman and Department of Interior Secretary Norton met with the Governors of the Western Governors' Association in the joint release and adoption of the 10-Year Comprehensive Strategy Implementation Plan for A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment which ***requires close collaboration*** between the citizens and governments at all levels and stipulates that key ***decisions should be made at the local level***; and

WHEREAS, On February 20, 2003 President George Bush signed the FY-2003 Omnibus Appropriations Bill which included Senator Feinstein's amendment that "Congress reaffirms its original intent that the Herger-Feinstein Quincy Library Group Forest Recovery Act of 1998 ***be implemented***, and hereby ***extends the expiration of the Quincy Library Group Act by five years" through 2009***; and

WHEREAS, On March 6, 2003 the SNFPA review team released their findings and recommendations to Regional Forester Blackwell: and

WHEREAS, On March 11, 2003, the Quincy Library Group and Plumas County filed a Petition for Writ of Mandate seeking to vacate the January 12, 2001 ROD and to prepare a legally sufficient EIS using authorized regulatory procedures under the National Forest Management Act; and

WHEREAS, On March 18, 2003 Regional Forester Blackwell announced the schedule for initiating the Supplemental Draft EIS to the SNFPA with a timeline that basically eliminated any meaningful and effective implementation of QLG Pilot Projects during FY-2003 and FY-2004 operating seasons; and

WHEREAS, On April 15, 2003, the Forest Service released the FY-2003 Program of Work for the QLG Pilot Project area which ***continues the substandard implementation*** of the Pilot Project for the fourth consecutive season and ***furthers the negative social and economic impacts to the citizens, businesses and local governments***:

- Accomplished acres @ 92,200 acres (38% of plan)
- Merchantable sawlog volume @ 106.2 million bdft (9% of the plan)
- Bio-mass volume @ 594,000 bdtons (54% of the plan)
- Economic activity @ $152 million (9% of the plan); and

WHEREAS, On June 2, 2003 the Forest Service published the Draft SEIS for the SNFPA providing three alternatives for public review and comments by September 12, 2003:

S-1 No Action Alternative
S-2 Proposed Action and Preferred Alternative
S-3 Staged Implementation Alternative; and

WHEREAS, The Tehama County Board of Supervisor's ***concur*** with the Regional Forester that Alternative S-2 is a significant improvement over the FEIS ROD and appears to provide for a higher level of implementation of the ***resource management activities*** specified in the H-FQLG Act in the ***short term***. However, we ***do not concur*** with the Regional Forester that Alternative S-2 is environmentally sustainable over the ***long-term*** and will provide the critically important social, economic and fire protection benefits to the citizens, businesses and local governments of Tehama County.

NOW, THEREFORE, BE IT RESOLVED, That the Tehama County Board of Supervisors urgently request that Regional Forester Blackwell work with the Quincy Library Group for the immediate development, analysis and selection of a sustainable Alternative for the SNFPA-DSEIS, that corrects:

- The arbitrary Desired Future Condition in S-2, that mandates that 70% of the National Forest landscape will be managed towards a closed canopy forest with predominantly big old trees, is not sustainable and is inconsistent with the goals and objectives of the NFP. A more appropriate and sustainable vision for the forest of the future is the "all aged, multi-story, fire resistant forest ..." that is envisioned in the QLG Community Stability Proposal.

- The annual pace, scale, location and methods of proposed fuel reduction treatments are not sufficient to provide a sustainable solution to the hazardous fuel crisis that is threatening the communities and watersheds throughout the QLG Pilot Project area and the balance of the Sierras. The treatment schedule and strategy presented in S-2 is woefully inadequate and fails to meet the fuel reduction and fire protection objectives of the NFP and the WGA's 10-Year Comprehensive Strategy and Implementation Plan.

- The illegal premise in the Final EIS and Draft SEIS that timber management and/or production is no longer a legitimate use on the National Forests but simply a "byproduct" of other (more important) multiple use management objectives is a major shift in the management policies of the National Forests and a violation of the Organic Act, the Multiple Use Sustain Yield Act and the National Forest Management Act as well as a major threat to the social and economic sustainability of the communities in Tehama County.

The foregoing Resolution was duly passed and adopted by the Board of Supervisors of the County of Tehama, State of California, at a regular meeting of said Board held on the 9th day of September 2003, by the following vote:

AYES: Supervisors Willard, Turner, Borror, McIver and Russell

NOES: None

ABSENT OR NOT VOTING: None

Bill Borror
Chairman of the Board of Supervisors

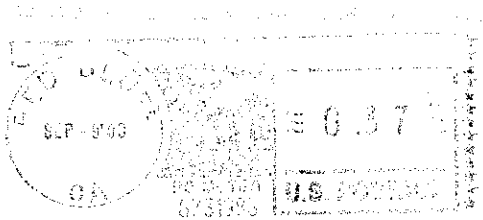
Dated: SEP - 9 2003

Mary Alice George, County Clerk and
ex-officio Clerk of the Board of Supervisors,
County of Tehama, State of California

By Angela L Ford
Deputy

Tehama County Clerk of the Board of Supervisors
P.O. Box 250
Red Bluff, CA 96080

MARY ALICE GEORGE
TEHAMA COUNTY CLERK & RECORDER
P. O. BOX 250
RED BLUFF, CA 96080



Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

84122#1090

SN-1277

BOARD OF SUPERVISORS
COUNTY OF BUTTE, STATE OF CALIFORNIA

Resolution No. 03-143

RESOLUTION OF THE BUTTE COUNTY BOARD OF SUPERVISORS

Requesting Regional Forester Blackwell to immediately analyze and select a sustainable alternative that meets the social, economic, environmental and fire protection concerns of the citizens and businesses in Butte County

WHEREAS The January 2001 Record of Decision for the Sierra Nevada Forest Plan Amendment Final Environmental Impact Statement was appealed by 250 individuals, organizations, Counties and the Quincy Library Group because of its failure to meet the sustainability requirements of the Organic Act, the National Forest Management Act, the Multiple Use Sustain Yield Act and the Herger-Feinstein Quincy Library Group Forest Recovery Act; and

WHEREAS On November 16, 2001 Forest Service Chief Dale Bosworth affirmed the SNFPA ROD, and directed Region-V Regional Forester Jack Blackwell to commence a review of the ROD for:

- Additional flexibility for aggressive fuel treatments
- New information associated with the National Fire Plan
- Harmonization between the goals of the SNFPA and the H-FQLG Pilot Project; and

WHEREAS On December 31, 2001 Regional Forester Blackwell appointed the review team and broadened the scope of the review to include the assessment of the ROD on grazing, recreation, and ***impacts to local communities*** and further directed that the review achieve:

- The reduction of "lethal" wildfires for the first decade
- Minimize the risk of escaped-fire effects to communities
- Meet NFP time frames for decreasing the acres at extreme risk to fire
- Develop a defensible space network at the appropriate pace and scale so that the network will be in place within the first decade of the NFP
- Develop defensible space network in cooperation with Fire Safe Councils, communities and private landowners; and

WHEREAS On May 23, 2002 Department of Agriculture Secretary Veneman and Department of Interior Secretary Norton met with the Governors of the Western Governors' Association in the joint release and adoption of the 10-Year Comprehensive Strategy Implementation Plan for A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment which ***requires close collaboration*** between the citizens and governments at all levels and stipulates that key ***decisions should be made at the local level***; and

WHEREAS On February 20, 2003 President George Bush signed the FY-2003 Omnibus Appropriations Bill which included Senator Feinstein's amendment that "Congress reaffirms its original intent that the Herger-Feinstein Quincy Library Group Forest Recovery Act of 1998 ***be implemented***, and hereby ***extends the expiration of the Quincy Library Group Act by five years" through 2009***; and

WHEREAS On March 6, 2003 the SNFPA review team released their findings and recommendations to Regional Forester Blackwell: and

WHEREAS On March 11, 2003, the Quincy Library Group and Plumas County filed a Petition for Writ of Mandate seeking to vacate the January 12, 2001 ROD and to prepare a legally sufficient EIS using authorized regulatory procedures under the National Forest Management Act; and

WHEREAS On March 18, 2003 Regional Forester Blackwell announced the schedule for initiating the Supplemental Draft EIS to the SNFPA with a timeline that basically eliminated any meaningful and effective implementation of QLG Pilot Projects during FY-2003 and FY-2004 operating seasons; and

WHEREAS On April 15, 2003, the Forest Service released the FY-2003 Program of Work for the QLG Pilot Project area which ***continues the substandard implementation*** of the Pilot Project for the fourth consecutive season and ***furthers the negative social and economic impacts to the citizens, businesses and local governments***:

- Accomplished acres @ 92,200 acres (38% of plan)
- Merchantable sawlog volume @ 106.2 million bdft (9% of the plan)
- Bio-mass volume @ 594,000 bdtons (54% of the plan)
- Economic activity @ $152 million (9% of the plan); and

WHEREAS On June 2, 2003 the Forest Service published the Draft SEIS for the SNFPA providing three alternatives for public review and comments by September 12, 2003:

S-1 No Action Alternative
S-2 Proposed Action and Preferred Alternative
S-3 Staged Implementation Alternative; and

WHEREAS The Butte County Board of Supervisors ***concur*** with the Regional Forester that a supplemental EIS is warranted and view Alternative S-2 as movement in a positive direction from the FEIS ROD in that they appear to provide for a higher level of implementation of the ***resource management activities*** specified in the H-FQLG Act in the ***short term***. However, we ***do not concur*** with the Regional Forester that Alternative S-2 is environmentally sustainable over the ***long-term*** and will provide the critically important social, economic and fire protection benefits to the citizens, businesses and local governments of Butte County.

NOW THEREFORE BE IT RESOLVED, That the Butte County Board of Supervisors urgently request that Regional Forester Blackwell work with the Quincy Library Group for the immediate development, analysis and selection of a sustainable Alternative, that corrects:

- The arbitrary Desired Future Condition in S-2, that mandates that 70% of the National Forest landscape will be managed towards a closed canopy forest with predominantly big old trees, is not sustainable and is inconsistent with the goals and objectives of the NFP. A more appropriate and sustainable vision for the forest of the future is the "all aged, multi-story, fire resistant forest ..." that is envisioned in the QLG Community Stability Proposal.

- The annual pace, scale, location and methods of proposed fuel reduction treatments are not sufficient to provide a sustainable solution to the hazardous fuel crisis that is threatening the communities and watersheds throughout the QLG Pilot Project area and the balance of the Sierras. The treatment schedule and strategy presented in S-2 is woefully inadequate and fails to meet the fuel reduction and fire protection objectives of the NFP and the WGA's 10-Year Comprehensive Strategy and Implementation Plan.

- The illegal premise in the Final EIS and Draft SEIS that timber management and/or production is no longer a legitimate use on the National Forests but simply a "byproduct" of other (more important) multiple use management objectives is a major shift in the management policies of the National Forests and a major threat to the social and economic sustainability of the communities in Butte County.

PASSED AND ADOPTED by the Board of Supervisors of the County of Butte, State of California, at a regular meeting of said Board held on the 9th day of September 2003, by the following vote:

AYES: Supervisors Josiassen, Yamaguchi, and Chair Beeler
NOES: Supervisor Dolan
ABSENT: Supervisor Houx
NOT VOTING: None

R. J. BEELER, Chair

ATTEST:

PAUL MCINTOSH, Chief Administrative Officer
And Clerk of the Board of Supervisor

By: _____
Deputy

COUNTY OF BUTTE
25 County Center Drive
Oroville, CA 95965
Fax # (530) 538-7120

To: Name Sierra Nevada Forest Plan Amendment Date 9/11/03
Company
Fax Number 801-517-1014

From: Name Kelly Sloan
Department Admin
Phone Number 530-538-7631

Message:

Number of pages including this cover sheet 4

SN-1278

County of Fresno

CHAIRMAN
BOARD OF SUPERVISORS
SUPERVISOR JUAN ARAMBULA – DISTRICT THREE

September 12, 2003

USDA Forest Service
Content Analysis Team
Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090 **VIA FAX: (801) 517-1014**

SUBJECT: Draft Supplemental Environmental Impact Statement (DSEIS)
For The Sierra National Forest Plan Amendment

Dear DSEIS Team Members:

Thank you for the opportunity to comment on the DSEIS for the proposed amendment to the Sierra National Forest Plan. We are pleased that the apparent intent of the Amendment is to provide a more balanced and flexible approach to forest management, to address critical fire and fuel management concerns in the Sierra National Forest, and to focus on community fire protection.

The Fresno County Board of Supervisors has a growing concern with local forest conditions that place not only the forest but also our mountain communities at high risk for catastrophic fire, due to fuels build-up and overgrowth. Policies that severely limited commercial extraction and curtailed local site-specific management flexibility have contributed to this growing risk to our national lands.

We share the concerns of local organizations such as the Sierra Nevada Access, Multiple-Use and Stewardship Coalition (SAMS) that, while a positive direction, the draft Amendment does not go far enough to protect our forest and communities from the very real danger of catastrophic fire. Over 11 million acres in the Sierra Nevada range have been classified at high and very high risk for catastrophic fire. Substantially increased management efforts, including mechanical treatments and commercial extraction sufficient to both reduce the fuel loads and fund the necessary treatment efforts, are necessary. Without such a commitment, the sustainable benefits of the healthy forest lands for wildlife habitat, water quality, and recreation will continue to be degraded, and the safety and livelihood of our mountain communities lost.

Compounding our concern is the disastrous air quality conditions in the San Joaquin Valley. Controlled fire in the Forest, which is managed to some degree to avoid the worst stagnant air conditions, still contributes substantial amounts of particulate matter to our non-attainment air basin. Uncontrolled wildfires would be far worse, increasing health risks to residents throughout the Valley. The risk and occurrence of such fires will continue to increase until the fuels management problem is more fully addressed.

One practical approach that would address both fuels reduction and air quality would be to re-initiate the co-generation plant in the community of Auberry. This would be an opportunity for a partnership between federal and local agencies to address our common concerns, as well as promote economic recovery of a community damaged by closure of businesses dependant on forest resources. However, without a substantial and reliable source of biofuel from fuel reduction programs on federal lands, this opportunity will remain unrealized.

Enclosed for your reference is a resolution of our Board adopted in 2000 on reducing the risk of catastrophic fire. It is our understanding that the SAMS Coalition provided specific comments on the DSEIS for your review earlier this month.

We also concur with a request for a locally-held congressional field hearing on the DSEIS for the Plan Amendment, to increase opportunities for public participation and encourage dialog to develop realistic and practical management strategies. These issues are of vital importance not only to our mountain communities, but to all of our Valley residents who value healthy forests and seek to improve our air quality.

Again, we are pleased to discern a more balanced approach to forest management issues, and hope that we, with the support of the Forest Service, continue to move in a more positive direction to address the sustainable health of our forests, and the safety of residents and visitors to the Sierra National Forest. We would very much appreciate continuing involvement in your planning and decision-making processes that have such a vital impact on our mountain communities. If you need additional information, please contact Lynn Gorman, Department of Public Works and Planning at (559) 262-4091.

Sincerely,

Juan Arambula

Juan Arambula, Chairman
Fresno County Board of Supervisors

Attachments

cc: Fresno County Board of Supervisors
James Boynton, Sierra National Forest Supervisor
Bart Bohn, Fresno County Administrative Officer
Lynn Gorman, Department of Public Works and Planning

File #16144
August 1, 2000
Resolution #00-408

BEFORE THE BOARD OF SUPERVISORS

OF THE COUNTY OF FRESNO

STATE OF CALIFORNIA

IN THE MATTER OF ADOPTING)
A RESOLUTION REDUCING THE RISK)
OF CATASTROPHIC WILDFIRE)
ON NATIONAL FOREST LANDS)
INCLUDING THE SIERRA AND)
SEQUOIA NATIONAL FORESTS)

WHEREAS, the April 1999 General Accounting Office (GAO) Report entitled, Western National Forests, a Cohesive Strategy is Needed to Address Catastrophic Wildfire Threats states, "The most extensive and serious problem related to the health of national forests in the interior West is the overaccumulation of vegetation, which has caused an increasing number of large, intense, uncontrollable, and catastrophically destructive wildfires;" and

WHEREAS, The April 2000 U.S. Forest Service report Protecting People and Sustaining Resources in Fire-Adapted Ecosystems: Cohesive Strategy responding to the GAO report, confirmed the conclusion stated above and further warns, "Without increased restoration treatments...wildfire suppression costs, natural resource losses, private property losses, and environmental damage are certain to escalate as fuels continue to accumulate and more acres become high-risk;" and

WHEREAS, The U.S. Forest Service further acknowledges that 39 million acres of national forest are at significant risk of catastrophic wildfire, including 800,000 acres in Fresno County, and an additional 26 million acres will be at similar risk due to increases in insect and disease mortality; and

WHEREAS, the National Research Council and the Federal Emergency Management Agency (FEMA) recognized catastrophic wildfires among the defining natural disasters of the 1990s; and catastrophic wildfires not only cause damage to the forests and other lands, but risk the lives of firefighters, and pose threats to human

health, personal property, sustainable ecosystems, and air and water quality; and

WHEREAS, accumulation of high-risk forest fuel in combination with reduced fire response capability by federal agencies, is producing catastrophic wildfires that are increasingly difficult and expensive to put out, and placing a disproportionate burden on state and local resources; and recent catastrophic wildfires on National Forest land such as the escaped Cerro Grande Prescribed Fire in May 2000, with losses exceeding $1 billion in Los Alamos, New Mexico, and the escaped Lowden Prescribed Fire in 1999 that destroyed 23 homes in Lewiston, California highlight the unacceptable risks of using prescribed burning as the sole forest management practice of federal land management agencies; and

WHEREAS, of particular significance to the health, welfare and safety of the people of Fresno County are the current planning efforts of the U.S. Forest Service such as the Sierra Nevada Framework, the Roadless Initiative, and the Federal Monument proclamations that rely primarily on extensive use of prescribed fire which will further exacerbate the risk of catastrophic wildfire on federal lands throughout the West.

WHEREAS, Secretary of the Interior Babbitt has now called the prescribed burning approval process, "an unacceptable model for the use of fire, because fire is the most dangerous and unpredictable force that we deal with." Further, he called for a new way of carrying our prescribed fires, "in which forests will be thinned before being ignited."

NOW, THEREFORE, be it resolved that in the interest of protecting the integrity and posterity of our forest and wild lands, wildlife habitat, watershed, air quality, human health and safety, and private property, issues of immediate and significant interest to Fresno County, the U.S. Forest Service and other federal land management agencies must immediately enact a cohesive strategy to reduce the overabundance of forest fuels which place these resources at high risk of catastrophic wildfire; and

Be it further resolved that utilizing an appropriate mix of forest management methodologies, including selective thinning and harvesting, the removal of excessive

ground fuels followed by small-scale prescribed burns, and increased private, local, and state contracts and partnerships for more effective fire suppression and pre-fire management of federal forest lands; and

Be it further resolved that, in the interest of forest protection and rural community safety, the Departments of Agriculture and Interior immediately draft for public review and adoption a national prescribed fire strategy for public lands that creates a process for evaluation of worst case scenarios for risk of escape and identifies alternates that will achieve the land management objectives while minimizing the risk and use of prescribed fire. Such strategy must be completed prior to adoption of regulatory and/or land use planning programs that propose use of prescribed fire as a management practice; and

Be it further resolved that a copy of this resolution be immediately forwarded to President Clinton, Vice President Gore, Secretary of the Interior Babbitt, Secretary of Agriculture Dan Glickman, the western states U.S. Senators and House Representatives, and the U.S. Forest Service, the U.S. Park Service, and the Bureau of Land Management.

THE FOREGOING was passed and adopted by the following vote of the Board of Supervisors of the County of Fresno this 1st day of August, 2000, to-wit:

AYES: Supervisors Koligian, Oken, Arambula, Levy, Case

NOES: None

ABSENT: None

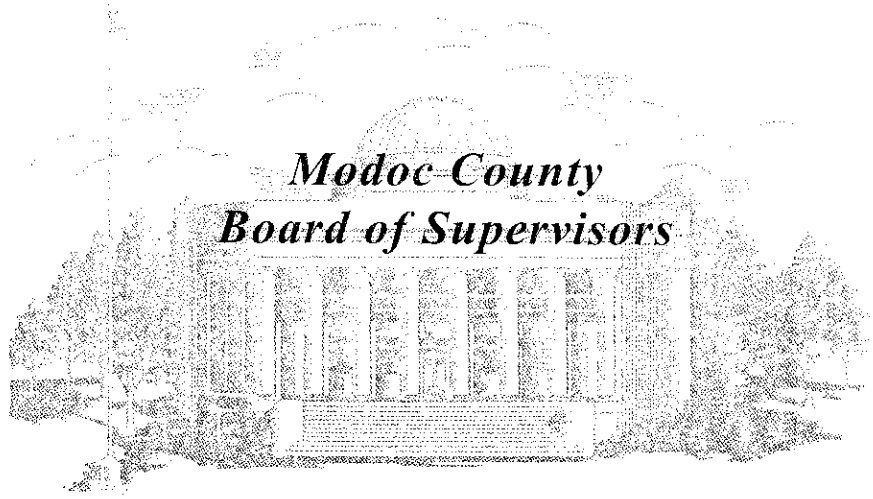
CHAIRMAN, Board of Supervisors

ATTEST:
SHARI GREENWOOD, Clerk
Board of Supervisors

By _____
Deputy

File #16144
Agenda #17
Resolution #00-408

SN-1453



Modoc County
Board of Supervisors

MAXINE MADISON
County Clerk
and
Clerk of the
BOARD OF SUPERVISORS

Box 130
ALTURAS, CALIFORNIA 96101

(530) 233-6201

September 11, 2003

Sierra Nevada Forest Plan Amendment DSEIS
P. O. Box 221090
Salt Lake City, UT 84122-1090

Subject: Comments on the Draft Supplemental Environmental Impact Statement for the Sierra Nevada Forest Plan Amendment

Dear Sirs:

The Modoc County Board of Supervisors (County) appreciates the opportunity to comment on the Draft Supplemental Environmental Impact Statement (DSEIS) for the Sierra Nevada Forest Plan Amendment (SNFPA).

The County has been involved with the Framework since its inception, including the development of an alternative for the original DEIS, and believes this document is a great improvement over the original decision. The movement toward local flexibility for management decisions while maintaining the overall desired future conditions was a necessary step for resource management, especially on the Modoc Plateau.

The DEIS permits local prescriptions for vegetation management that take into account the uniqueness of the landscape of the Modoc National Forest yet still meet the goals under the National Fire Plan. The County also sees great improvement in the options available for meeting grazing utilization standards and guidelines while still providing for wildlife habitat.

The original Record of Decision (ROD) recognized many of the exemplary programs ongoing on the Modoc National Forest by providing for seven exemptions to the Framework standards and guidelines. These are models for local collaboration and resource management and demonstrate both the uniqueness of the Modoc Plateau landscape within the SNFPA and the working relationship that exists between the Forest Service, county government, and the local

communities. The County strongly encourages you to carry these exemptions forward into the new ROD.

One of these exemptions relates to the management of the Big Valley Sustained Yield Unit, one of three in the nation. The Unit has been the subject of significant planning and interaction between the Modoc National Forest and he communities of Big Valley since the SNFPA began. The communities are actively implementing grants obtained through the assistance of the Modoc National Forest. The Forest has intensified their planning to fulfill their sustained yield obligation. Clearer language in the new ROD regarding the Unit exemption would be helpful.

The Sagebrush Steppe Ecosystem makes up a significant portion of the Modoc Plateau. Three million acres of this ecosystem has been encroached by Western Juniper with an estimated expansion of 50,000 acres annually. The land allocations (Attachment 1) and the standards and guidelines contained in the DSEIS preclude the ongoing plans for ecosystem restoration from being implemented effectively. The County strongly urges the exclusion of this major collaborative planning effort from the new decision.

This planning effort began with the Western Juniper Management Strategy Planning Proposal Analysis funded by the Modoc County Cattlemen's Association (Attachment 2). Currently lead by a team consisting of the Modoc National Forest, North Cal-Neva Resource and Development Council, the Alturas Field Office of the Bureau of Land Management and Modoc County, the project has grown to include over thirty supporters including Congressmen Herger and Doolittle (Attachment 3).

To date the data compilation on six million acres is about complete and the preliminary strategy development is ready to begin. The County believes the wholesale loss of this ecosystem to be the overriding resource issue in Northeastern California and through the Modoc County Resource Advisory Committee (RAC) has obligated 155,000 dollars to this project. This money has purchased the high-speed computer needed to process the enormous data load and provides the local match for a grant applied for through the Biomass Research and Development Initiative (Attachment 4).

If the grant application is not successful, the County is prepared to obligate an additional 100,000 dollars through the RAC and work closely with our agencies partners and congressional supporters to obtain the needed funding to finish the plan. This could result in a Forest Plan Amendment to the Modoc National Forest Plan specifically addressing the management of the sagebrush ecosystem. The County believes this direction has the support of the Regional Forester as he reviewed this project as part of the California Biodiversity Counsel's visit to Modoc County in August of 2002.

The benefits of this planning effort are many. The encroachment of this area is destroying the habitat of many sagebrush obligate species, including several being considered for listing such as the sage grouse and pigmy rabbit. Juniper treatment has proven to release additional ground

water in the uplands, thereby benefiting the grazing prescriptions designed to reduce livestock impacts in riparian areas. The potential to establish a biomass industry could have significant economic benefits for the local economy as well as fund some of the juniper treatment costs.

The County encourages the strong consideration of this exemption. We believe it fits closely with the direction given the Regional Forester by Chief Bosworth to pursue more aggressive fuel treatments while protecting species at risk. This effort is also consistent with the direction to accomplish community protection and forest health goals under the National Fire Plan. The County further believes it is a perfect fit for the Regional Forester's goal of reducing the unintended and adverse impacts on local communities.

In conclusion, the County reiterates their two main issues:

1. Clarify the exemptions that are applicable to Modoc County and the Modoc National Forest in the new Record of Decision.
2. Protect the ongoing collaborative planning effort for sagebrush steppe ecosystem restoration through exemption or other direction.

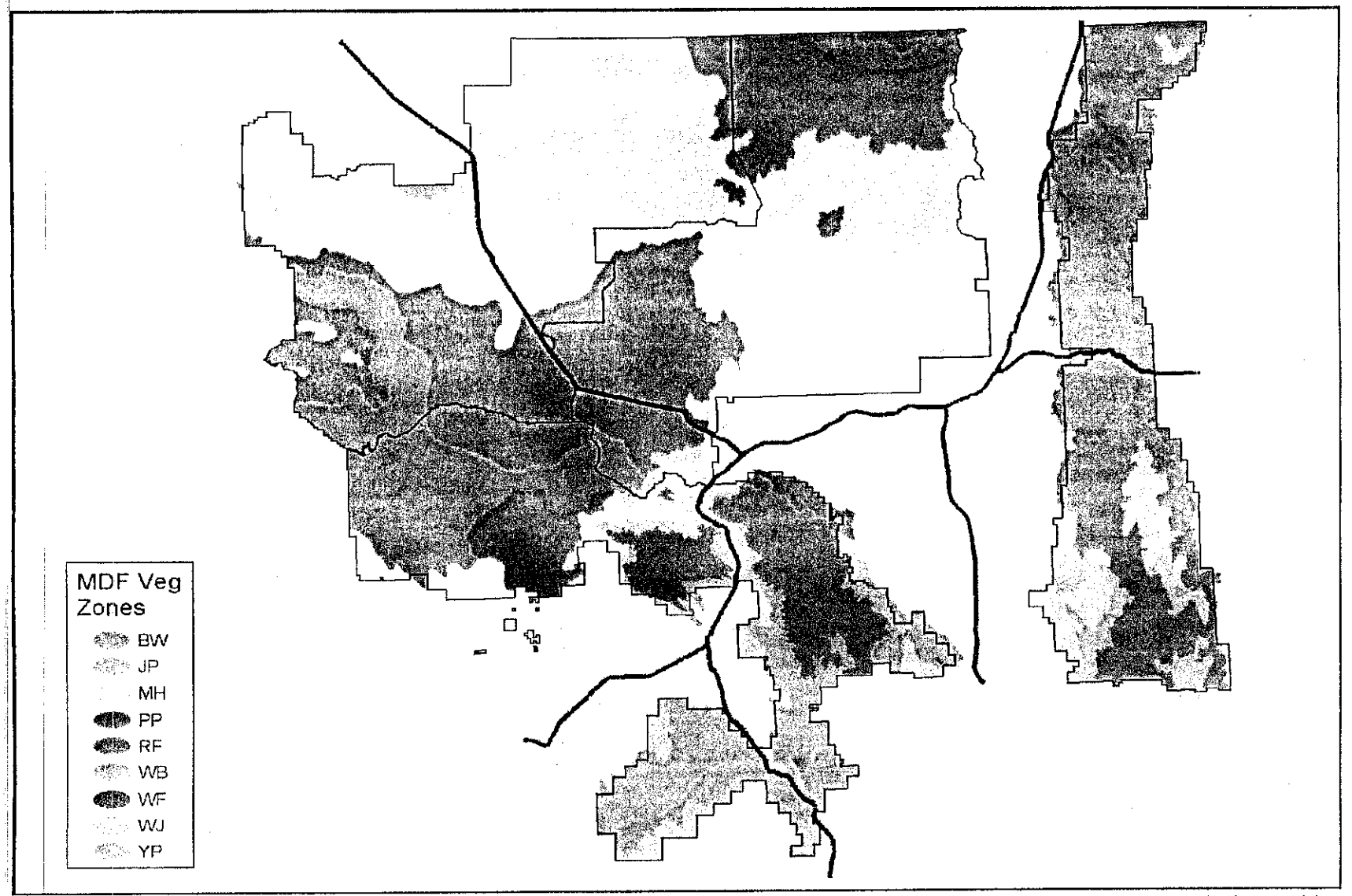
The County has been pleased to participate in this improvement of the original document and looks forward to working with the Forest Service at all levels to implement improvements on the landscape.

Sincerely,

Mike Dunn

MIKE DUNN
Chairman

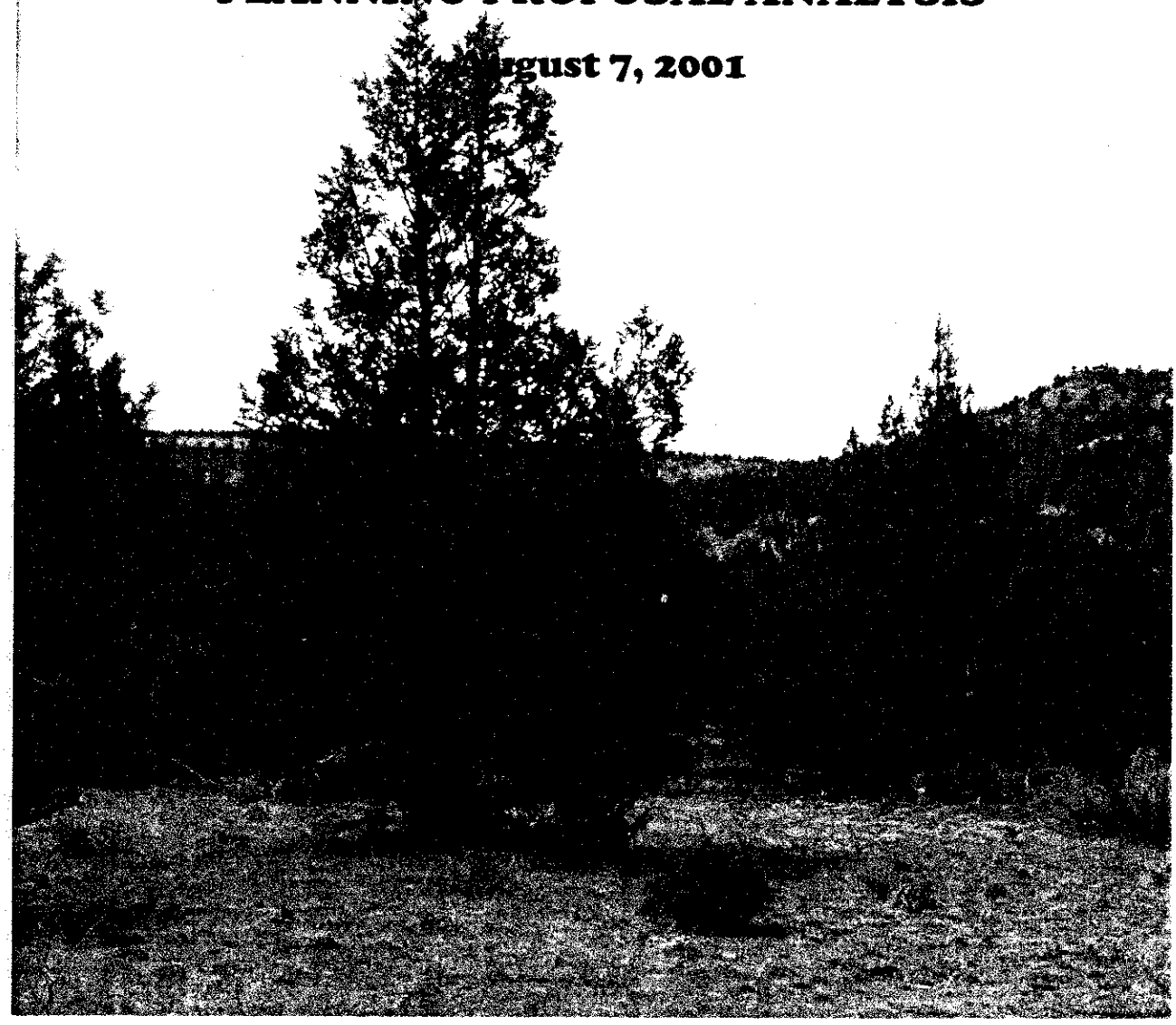
Attachments



Attachment 1. Map showing proposed sage steppe ecosystem land allocation areas. Preliminary areas considered are designated by "WJ".

WESTERN JUNIPER MANAGEMENT STRATEGY PLANNING PROPOSAL ANALYSIS

gust 7, 2001



Requested By:

- North Cal-Neva Resource Conservation & Development Council
- Bureau of Land Management
- United States Forest Service

Prepared By:

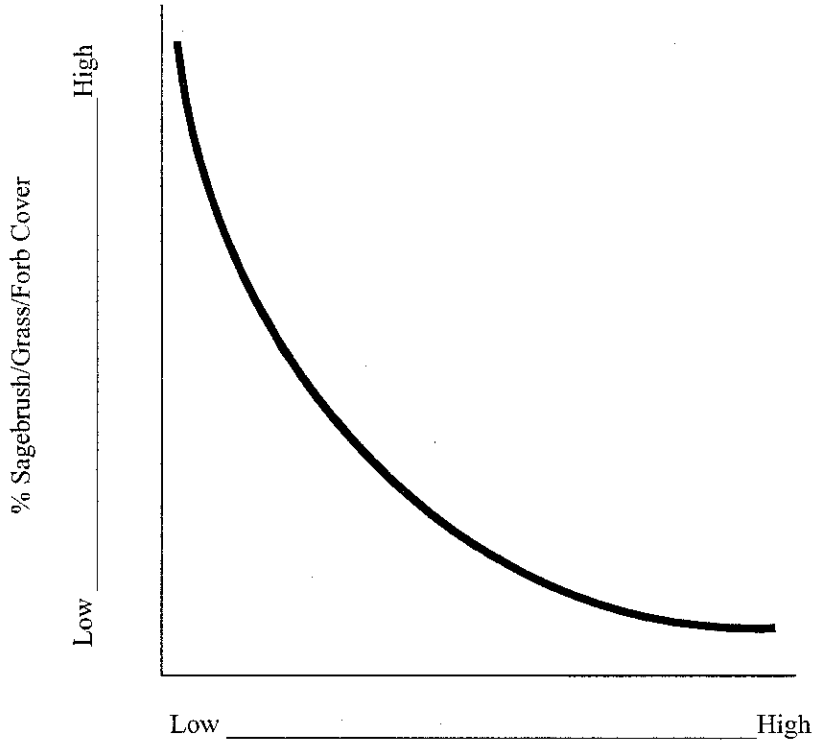
ENGINEERING ✧ PLANNING ✧ RESOURCE MANAGEMENT

RESOURCE CONCEPTS, INC.

340 N. Minnesota St. • Carson City, NV 89703-4152 • (775) 883-1600 • Fax: (775) 883-1656
212 Elkspoint Rd, Suite 41 • Zephyr Cove, NV 89448 • (775) 588-7500 • Fax: (775) 589-6333

The Issue With Western Juniper

It is estimated that western juniper *(Juniperus occidentalis)* currently occupies 2.5 million acres of rangeland in northeastern California and northwestern Nevada. This constitutes a ten-fold expansion of juniper range over the past 130 years. A consequence of this juniper expansion has been a loss of species diversity, productivity and overall rangeland health. As shown in the following graph, sagebrush, grass and forb cover are all reduced as juniper canopy cover increases.



Adapted from Research by Rick Miller

According to Rick Miller, a professor of range science at Oregon State University and recognized expert on western juniper, We have been very successful in reducing the role of fire in the juniper woodland belt in the high desert. Unless additional coordinated western juniper management is undertaken, wildlife habitat, species abundance and diversity, and diversity at the landscape level will continue to decline as juniper woodland canopies close.

Commenting on the vegetative monocultures that seem to be developing over much of our western rangeland, Neil West, a range management professor at Utah State University remarked, We ve moved from the Pleistocene epoch to the Holocene and now we appear to be moving into the Homogecene.

An example of the degree of juniper encroachment that can occur in less than 70 years is shown on the following page.

Western Juniper Encroachment – 67 years

1916 Near West Valley Reservoir, Modoc County, California
(Courtesy McGarva Ranch)

1983 Same Site
(Courtesy McGarva Ranch)

The impact of juniper encroachment on water availability on western rangelands is another area of concern. John Buckhouse, range management professor at Oregon State University and former president of the International Society for Range Management notes that, Western juniper e n-croachment into the shrub-steppe communities can have a significant effect on the water cycle. Buckhouse describes decreased infiltration and increased surface flows on sites dom i-nated by juniper and says, Sites also become drier with i ncreasing juniper dominance because of interception and evaporation, gully erosion, and a lowering of the capillary fringe associated with influent ground water systems and desert streams.

The good news is that juniper encroachment and its effects are reversible. With environmentally sound juniper management, the repressed plant and animal life can be released to flourish again. The overall vibrant and ecologically healthy systems that the sites are fully capable of supporting can be rejuvenated.

Development of a management strategy at this landscape level will allow the agencies and the public to take a holistic look at the juniper-sagebrush steppe ecosystem. The planning will result in an integrated approach to juniper management, matching treatment options to landscape type. Some areas will be identified where mechanical treatment such as shearing and chipping is appropriate. Hand treatment, prescribed fire or herbicide use may be the best options elsewhere. Other juniper stands will be identified which should just be left alone.

Much of the information needed for this type of strategy development is already on hand. Remote sensing data depicting juniper canopy cover can be combined with soil survey information and digital elevation models in a Geographic Information System (GIS) to provide a broad picture of juniper management opportunities.

Once an initial management strategy is formulated, it would be presented to the public as a proposed alternative to be analyzed in a regional juniper management environmental impact statement/environmental impact report (EIS/EIR).

The ultimate objective of the planning effort is completion of a strategic document which would prioritize juniper treatment areas and guide juniper management in the region for the next 20 to 25 years. Individual juniper management projects could then be assessed by tiering off the overall strategy.

Planning Proposal Analysis

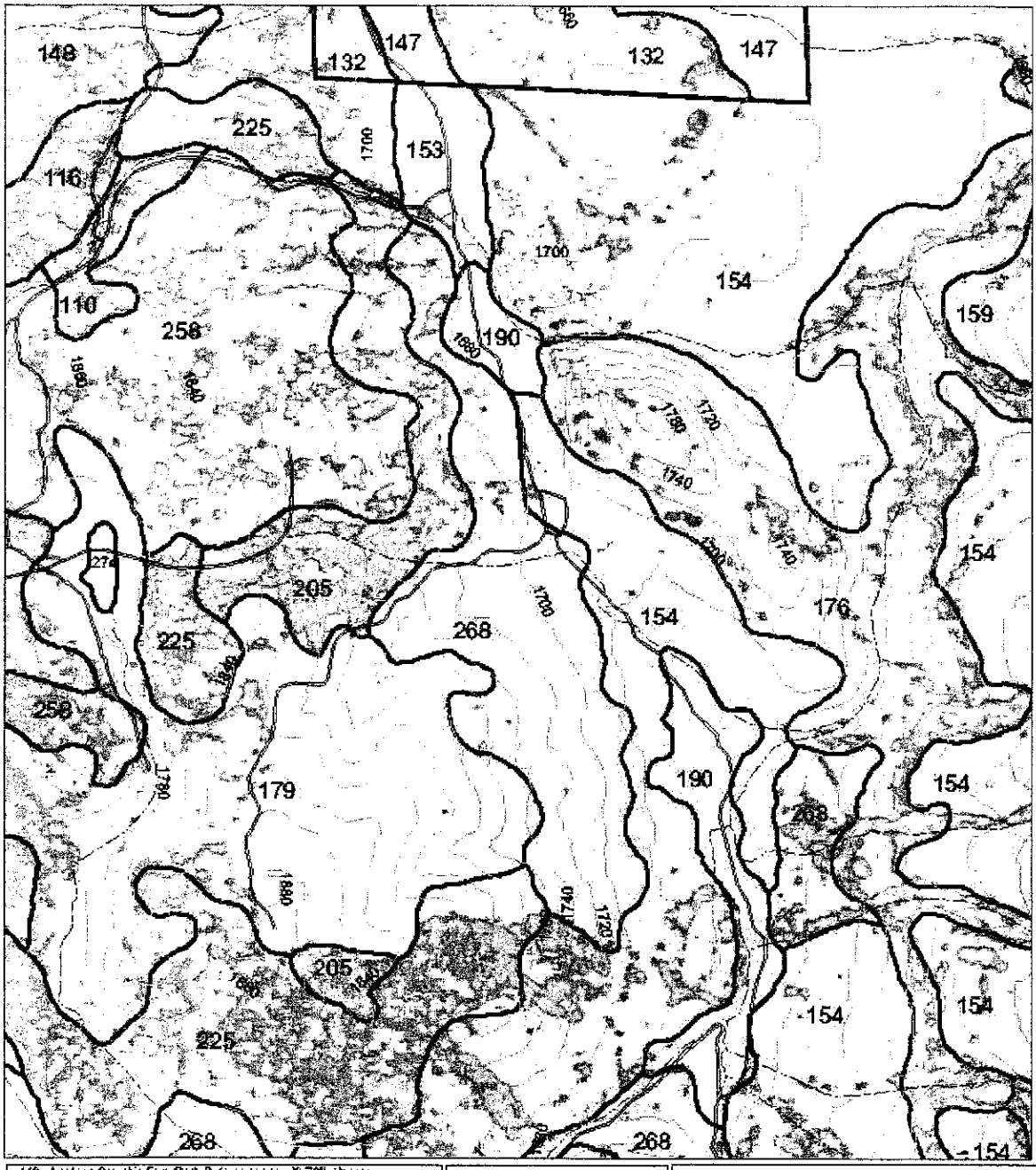
The map on the next page depicts an area near Likely, California. It displays the types of information that will be available for analysis in the proposed GIS including elevation, slope, aspect, juniper canopy cover and soil associations. Analysis of this data will enable interdisciplinary teams to assess juniper management options and priorities and to assess potential treatment impacts.

For example, a quick look at the map indicates an apparent burned area within soil types 268 and 179. The road up to the peak appears to have provided a firebreak leaving a light to moderate juniper cover on the western aspects of the 179 soil type and the northern portion of 268. These soils are moderately deep loams and cobbly loams with potential vegetation consisting of low sagebrush, Idaho fescue and bluebunch wheatgrass. Clearly, fire has played an integral role in this ecosystem in the past and should continue to play a role in future management scenarios.

Just to the north of the burned area, soil map unit 205 supports potential vegetation of ponderosa pine and white fir. The roads into this soil type may be indicative of previous timber harvesting activity. It would be useful to field check vegetation on this map unit to help differentiate between ponderosa pine or white fir canopies and western juniper canopy cover. Of course, timber stand health can normally be significantly improved by juniper removal.

To the south of the burned area, soil map unit 225 is a moderately deep, cobbly to rocky sandy loam that supports a juniper woodland vegetation type. This is the type of western juniper stand that might be best left alone. Steep slopes, highly erodible soils, habitat or aesthetic concerns, or the presence of cultural resources are all possible reasons for avoiding management impacts in a particular area.

Juniper Management Planning Demonstration Area



116 Anatone-Bassbrin Fam-Rock Outcrop assoc., 30-70% slopes
116 Anatone-Smarts Fam. Assoc., 20-40% slopes
132 Denver-Rock Outcrop Complex, 2-30% slopes
147 Kanzid-Nimitzer Complex, 0-9% slopes
148 Damasters-Smarts Fam. Assoc. deep complex, 1-20% slopes
153 Denver-Blabber-Pass Canyon Fam. Assoc., 1-15% slopes
154 Denver-Pass Canyon Fam Complex, 1-10% slopes
159 Denver Fam.-Rock Outcrop assoc., 1-20% slopes
176 Guan-Pass Canyon Fam-Lithic Xerorthents, Mesic Complex, 20-40% slopes
179 Hardee-Vipont-Anatone Fam Assoc., 10-30% slopes
190 Jackdale-Aldman Fam. Assoc., 0-5% slopes
205 Lawyer-Elmose-Guan Fam Assoc., 20-40% slopes
225 Pass Canyon-Forbide-Guan Fam. Assoc ,20-40% slopes
256 Smarts-Mescamo-Damasters deep Fam Assoc., 2-20% slopes
268 Supan-Supan deep-Pass Canyon Fam. Assoc., 1-20% slopes

Canopy Closure
- < 10 %
- 11-20 %
- 21-35 %
- > 35 %

Soils by mapping Unit Symbol

Contour Interval:
20 Meters

0.25 0 0.25 0.5 0.75 Miles

These are just a few examples of how existing GIS data can assist in western juniper management planning. In landscape level strategy development a whole series of questions can be quickly asked and answered on a much broader scale. In addition, various types of vegetation and soils information can be readily extrapolated across the planning area to assist in the development of a wide array of juniper management planning alternatives.

Findings

After a thorough review of the planning proposal and available data, RCI concludes that the proposal is not only feasible but long overdue. We applaud the coordinated approach being proposed by the BLM, USFS and North Cal-Neva RC&D and encourage continuation of their efforts.

The overall cost for development of the management strategy and EIS/EIR is estimated to be $800,000. Some of these costs may overlap, however, we estimate that the management strategy can be developed for $300,000 and the EIS/EIR for an additional $500,000.

The timeframe for completion of the management strategy and EIS/EIR is estimated to be 24 months. It is envisioned that the management strategy could be completed within 12 months and the EIS/EIR within 18 months. There would be approximately 6 months overlap when both documents would be in progress simultaneously.

The 24-month estimate could vary depending on public and environmental sensitivity.

Contacts

Contacts for information on this Western Juniper Management Strategy proposal are:

1) **TIM BURKE**
   Bureau of Land Management, Alturas Field Manager
   Ph (530) 233-4666 * **Fax** (530) 233-5696 * **Email** tburke@ca.blm.gov

2) **DAN CHISHOLM**
   US Forest Service, Modoc Forest Supervisor
   Ph (530) 233-5811 * **Fax** (530) 233-8709 * **Email** dchisholm@fs.fed.us

3) **TERRY WILLIAMS**
   North Cal-Neva Resource Conservation & Development Council
   Ph (530) 233-8868 * **Fax** (530) 233-8869 * **Email** williams@hdo.net

WESTERN JUNIPER MANAGEMENT STRATEGY

ISSUES AND OPPORTUNITIES

It is estimated that western juniper (*Juniperus occidentalis*) currently occupies approximately 2.5 million acres of rangeland in northeastern California. This constitutes a ten-fold expansion of juniper range over the past 130 years. Rangeland health, productivity and diversity are now at serious risk due to juniper encroachment.

At the same time, independent energy producers have found western juniper to be a desirable source of biomass fuel. Interest in siting co-generation power plants in the region is on the rise. The opportunity to utilize juniper for clean, renewable energy production could provide a real economic boost for many local communities.

In addition to the potential benefits derived from utilizing juniper to help meet our energy needs, the environment can benefit as well. An environmentally sensible reduction in current levels of juniper encroachment can improve wildlife habitat, increase water quality and available soil moisture, and result in more productive grazing land.

ENVIRONMENTAL CONSTRAINTS

It is critical that, prior to initiating any juniper reduction program, an assessment of potential environmental impacts is completed. Not all western juniper stands lend themselves to biomass harvesting. For instance, some stands serve important functions such as providing structural complexity and diversity for wildlife habitat. Also, the environmental impacts from inadvisable harvesting in one area can interact with other environmental problems resulting in unanticipated cumulative impacts.

The best way to avoid this type of problem is to complete landscape level planning up front. By taking a holistic look at the juniper-sagebrush steppe ecosystem, this planning will result in an integrated approach to juniper management, matching treatment options to landscape type. Some areas will be identified where mechanical treatment such as shearing and chipping is appropriate. Hand treatment, prescribed fire or herbicide use may be the best options elsewhere. Other juniper stands will be identified which should just be left alone.

LANDSCAPE LEVEL PLANNING

Much of the information needed for this type of planning effort may already be on hand. United States Forest Service and Bureau of Land Management specialists feel that remote sensing data can be combined with soil survey information in such a way so as to provide a holistic picture of juniper management opportunities. Individual juniper management projects can then be assessed by tiering off the overall strategy.

Another advantage of completing a landscape level plan is the opportunity for wider public involvement in the juniper management issue. It is entirely possible that additional, diverse markets for juniper products will be identified.

WHERE DO WE GO FROM HERE?

BLM and Forest Service personnel are currently fleshing out details of the landscape planning proposal. As presently conceived, this planning effort could be completed in a 12 to 18 month timeframe. The resulting strategy would be an integrated, holistic blueprint for juniper management in northeast California.

If you're interested in the potential for improved western juniper management or would like to be involved in this proposal, we're waiting to hear from you.

Please give us a call at the Alturas Bureau of Land Management, Tim Burke, Field Manager (530) 233-4666.

WHO ELSE IS INVOLVED?

Modoc National Forest

NORTH CAL-NEVA RESOURCE CONSERVATION&DEVELOPMENT COUNCIL

Central Modoc Resource Conservation District

Modoc County Cattlemen

Pit River Watershed Alliance

University of California Cooperative Extension

Modoc County Fish, Game and Recreation Commission

California Department of Forestry and Fire Protection

Lassen County Board of Supervisors

BLM - Surprise Field Office
Eagle Lake Field Office
Lakeview District Office

California Department of Fish and Game

Lassen National Forest

Modoc County Board of Supervisors

Oregon State University

Natural Resource Conservation Service
Alturas Field Office

NORTHEAST CALIFORNIA/NORTHWEST NEVADA RESOURCE ADVISORY COUNCIL

JOHN T. DOOLITTLE
4TH DISTRICT, CALIFORNIA

HOUSE REPUBLICAN CONFERENCE SECRETARY

DEPUTY WHIP

COMMITTEES:
APPROPRIATIONS
HOUSE ADMINISTRATION

Congress of the United States
House of Representatives

2410 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-0504
(202) 225-2511

4230 DOUGLAS BOULEVARD, SUITE 200
GRANITE BAY, CA 95746-5902
(916) 786-5560

http://www.house.gov/doolittle

May 13, 2003

The Honorable Ann Veneman, Secretary
United States Department of Agriculture
1400 Independence Avenue, S.W.
Washington, D.C. 20510

Dear Secretary Veneman:

I am writing to express my strong support for the Western Juniper Management Strategy (Strategy) as outlined by Modoc County in collaboration with the Modoc National Forest, the Alturas Field Office of the Bureau of Land Management, and the North Cal-Neva Resource Conservation and Development Council. Specifically, I strongly recommend the grant application submitted to the Biomass Research Development Initiative by the North Cal-Neva Resource Conservation and Development Council (Council).

This grant would provide the funding needed to prepare an Environmental Impact Statement (EIS) on the Strategy recently developed for northeast California and northwest Nevada. The implementation of the Strategy will result in opportunities for a wide variety of power generation applications while benefiting local rural economics.

As you may know, it is estimated that western juniper currently occupies approximately three million acres of rangeland in northeastern California. This is a ten-fold expansion of juniper range over the past 130 years. Rangeland health, productivity, and diversity on both public and private land are now at serious risk due to juniper encroachment. Preliminary estimates, developed using innovative geographic information system technology, indicate that 250,000 acres of juniper vegetation within the planning area may be suitable for shearing and chipping for use in biomass power plants. It is anticipated this region could produce sufficient biomass to fuel a 20-megawatt power plant for the next 20 years.

Thank you for your consideration of this grant application. The EIS has an integral role in this process, and I encourage you to award the funds requested by the Council so it can begin this work as soon as possible. The Strategy will provide lasting benefits for energy production, environmental health, and economic well being in this region.

Sincerely,

John T. Doolittle

JOHN T. DOOLITTLE
U.S. Representative

WALLY HERGER
2d DISTRICT, CALIFORNIA

PLEASE REPLY TO:

☐ WASHINGTON OFFICE:
2268 RAYBURN HOUSE OFFICE BUILDING
(202) 225-3076

DISTRICT OFFICES:

☐ 55 INDEPENDENCE CIRCLE, SUITE 104
CHICO, CA 95973
(530) 893-8363

☐ 410 HEMSTED DRIVE, SUITE 115
REDDING, CA 96002
(530) 223-5898

COMMITTEE ON
WAYS AND MEANS

SUBCOMMITTEES:

CHAIRMAN
HUMAN RESOURCES

TRADE

Congress of the United States
House of Representatives
Washington, DC 20515–0502

1453

August 28, 2001

The Honorable Ann Veneman
Secretary of Agriculture
14th and Independence Avenue, S.W.
Washington, D.C. 20250

Dear Ann:

I am writing to express my strong support for the Western Juniper Management Strategy, outlined in the attached document, which was developed by the BLM Field Office in Alturas, CA, in consultation with the Forest Service, local governments and other interested parties.

It is estimated that western juniper currently occupies 2.5 million acres of rangeland in northeastern California and northwestern Nevada. This figure constitutes a ten-fold expansion of juniper range in the past 130 years. The result has been a dramatic decrease in sagebrush, grass and forb cover. The attached document notes that, if left unchecked, "wildlife habitat, species abundance and diversity, and diversity at the landscape level will continue to decline as juniper woodland canopies close."

The juniper management strategy would likely involve the biomass industry, helping to moderate the costs while also helping to fill California's critical energy needs. I commend the BLM and Forest Service for helping to develop a "win-win" approach to this issue, and I am hoping that the BLM and the Forest Service can work together to fund and implement this initiative. The cost of the management strategy and the EIS/EIR would be roughly $800,000, which could be split between the two agencies.

I look forward to your consideration of the attached document.

Sincerely,

Wally Herger

Wally Herger
Member of Congress

BIOMASS RESEARCH DEVELOPMENT INITIATIVE PROPOSAL:

NORTHEAST CALIFORNIA/NORTHWEST NEVADA WESTERN JUNIPER MANAGEMENT STRATEGY ENVIRONMENTAL IMPACT STATEMENT

APPLICANT: NORTH CAL-NEVA RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL (Nonprofit Organization)

SOLICITATION NUMBER: USDA-GRANTS-031803-001

Part I: THE TECHNICAL PROPOSAL

Technical Summary

This grant application is proposed under program priority (3) (A) to contract for preparation of an Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) on the Preliminary Draft Western Juniper Management Strategy currently being prepared for northeast California and northwest Nevada. Completion of the EIS/EIR and implementation of the Strategy will significantly increase sustainable biomass production, provide opportunities for a wide array of power generation applications and benefit the rural economy. Implementing the Strategy will also improve ecosystem health in the region.

The Preliminary Juniper Strategy will undergo a public scoping process as the proposed action to be analyzed in the Draft EIS/EIR. The contractor will prepare alternative juniper management descriptions and the affected environment sections of the EIS/EIR, conduct impact analysis for each alternative, and identify feasible plan decisions and mitigation measures. Following public review, the contractor will finalize the Proposed Strategy and EIS/EIR in compliance with National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements. Once the Strategy and Record of Decision are adopted, the United States Forest Service, Bureau of Land Management and private landowners can begin implementing actions to address western juniper expansion and encroachment issues in a coordinated and comprehensive manner.

Recent studies have estimated that western juniper currently occupies approximately 3 million acres of rangeland in northeastern California. This constitutes at least a ten-fold expansion of juniper range over the past 130 years. Rangeland health, productivity and diversity are now at serious risk due to juniper encroachment.

Over the past three years, Modoc County, The Modoc National Forest, the North Cal-Neva Resource Conservation and Development Council, and the Alturas Field Office of the Bureau of Land Management have spearheaded development of the Western Juniper Management Strategy. The purpose of the Strategy is to reduce the level of juniper encroachment in an environmentally sensitive manner across a 6.6 million acre planning area in Nevada and California.

The Strategy is being developed using innovative geographic information system (GIS) technology to compare and contrast various data layers including: juniper canopy cover, digital elevation, soil survey/range site data, streams and drainages, fifth field watershed boundaries, transportation net and land ownership status. Priority juniper treatment areas and appropriate treatment methods are being identified through analysis of the GIS data using selected environmental parameters. This analysis has shown that shearing and chipping of excess juniper for power generation is potentially an effective and economical method for reducing juniper canopy cover over significant acreages within the planning area.

Preliminary assessments indicate that 250,000 acres of juniper vegetation within the planning area may be suitable for shearing and chipping for biomass. Using conservative estimates, this equates to sufficient biomass to fuel a 20 megawatt power plant for the next 20 years. Other energy applications to be examined include the establishment of mini-biorefineries to mill and process juniper in the production ethanol and biodiesel. There is also the potential to site microturbine power plants in strategic locations to more efficiently utilize available western juniper biomass.

Project Description

The contractor will be required to complete a Proposed Western Juniper Management Strategy and a Final EIS/EIR assessing the Proposed Strategy. These documents must be prepared in compliance with the National Environmental Policy Act and the California Environmental Quality Act including appropriate levels of consultation with the United States Fish and Wildlife Service, California Department of Fish and Game, Nevada Department of Wildlife, affected Indian Tribes, the California and Nevada State Offices of Historic Preservation, other state and county governments, and the general public. A map of the planning area is found at Attachment 1.

The total planning area includes 6,577,500 acres. Western juniper has encroached on 3,353,837 acres of primarily sagebrush-steppe rangeland within the planning area. Land ownership within the area of juniper encroachment is 41% United States Forest Service, 33% private, 23% Bureau of Land Management and 3% other federal and state. It is estimated that juniper encroachment is currently expanding at the rate of 50,000 acres per year.

Although western juniper is a native species and an important component of the high desert ecosystem, it naturally occurs in small patches and is generally restricted to rimrock or areas of shallow soil and sparse vegetation. The current period of juniper expansion and encroachment began approximately 130 years ago coinciding with favorable climatic conditions, the introduction of livestock grazing into the area and a reduction in wildland fire frequency. Over the years, juniper has continued to expand its range primarily due to effective, but often misguided, fire suppression activities. Today, the once small, isolated juniper tracts have been transformed into large contiguous woodlands with some serious environmental consequences.

As western juniper expands and tree canopies close, other important vegetation species, including grasses, forbs and shrubs, are out-competed and their frequency of occurrence is substantially reduced. This reduction in vegetative biodiversity translates directly to a reduction in animal species richness and abundance. Also, the lack of soil protection in juniper woodlands can result in increased erosion which directly impacts water quality.

Clearly, an environmentally sensitive reduction in current levels of juniper encroachment can improve wildlife habitat, increase water quality and available soil moisture, and result in more productive grazing land. There are a number of potential treatment options which can be used to reduce juniper canopy cover in the region. Among these are prescribed fire, herbicide application, hand cutting, or shearing and chipping for biomass energy production.

In fact, many independent energy producers have found western juniper to be a desirable source of biomass fuel. And interest in siting co-generation power plants in the region is on the rise. The opportunity to utilize a clean, renewable energy source could provide a real economic boost to local rural communities as well.

However, it is critical that, prior to initiating any juniper reduction program, an assessment of potential environmental impacts be completed. Not all western juniper stands lend themselves to biomass harvesting. For instance, some stands serve important functions such as providing

structural complexity and diversity for wildlife habitat. Also, the environmental impacts from inadvisable harvesting in one area can interact with other environmental problems resulting in unanticipated cumulative impacts.

The best way to avoid this type of problem is to complete landscape level planning up front. By taking a holistic look at the juniper-sagebrush steppe ecosystem, this planning will result in an integrated approach to juniper management, matching treatment options to landscape type. Some areas will be identified where mechanical treatment such as shearing and chipping is appropriate. Hand treatment, prescribed fire or herbicide use may be the best options elsewhere. Other juniper stands will be identified which should just be left alone.

Much of the information needed for this type of planning effort is already on hand. A coalition of over 25 local, state and regional partners have pulled together to produce a juniper management GIS. The GIS is currently being used to develop a Preliminary Draft Western Juniper Strategy. The key thematic layer of this GIS is a depiction of juniper canopy cover which was produced from computer analysis of over 800 digital orthophotos.

This juniper canopy cover layer includes the entire 6.6 million acre planning area. The canopy classes depicted in the GIS were established in coordination with Dr. Rick Miller of Oregon State University (a nationally recognized expert on western juniper) and coincide with classes he developed in describing seral stages of juniper encroachment. Early seral stages of juniper encroachment include the 1-5% and 6-20% canopy cover classes. Later seral stages are found in the 21-35% or >35% canopy cover classes.

Other thematic layers of the GIS depict a variety of environmental parameters including: digital elevation model, soil survey/range sites, streams and drainages, watershed boundaries, road network and land ownership status. When key layers are displayed in the appropriate sequence, the intersection of layers can be used to identify priority juniper treatment areas and appropriate treatment methods.

For instance, areas with relatively low juniper density on productive soil associations may be targeted for prescribed burns. Other areas with higher juniper canopy cover, on productive soils, < 40% slopes and within 1 mile of existing roads might be considered for mechanical treatments (see Attachment 2). Still other stands of juniper on rocky, shallow soils should probably be left alone.

The Preliminary Draft Western Juniper Management Strategy is scheduled to be completed over the entire planning area by mid-August. The contractor will then initiate the EIS process, beginning with public review and scoping of the Preliminary Strategy. This public scoping phase will generate planning issues which will be addressed in the EIS. An initial list of planning issues related to biomass production follows.

Selected Biomass Planning Issues

1. What is the volume of western juniper that is available for biomass operations in northeast California and northwest Nevada?

   a) Approximately 8,000 tons of bone dry juniper produces 1 megawatt-year of electricity. Rough initial estimates indicate that 3,250,000 bone dry tons of juniper may be available for biomass operations. Is this a sufficient amount of biomass to attract additional biomass plants to the region?

2. What are the economics of shearing and chipping western juniper in northeast California and northwest Nevada for biomass energy production? Are subsidies needed for public land operations?

   a) The Alturas Field Office of the Bureau of Land Management teamed with Honey Lake Power in the fall of 2000 to test the potential for real-time chipping of western juniper at the stump. A high volume selective removal regime was operated on three sites totaling about 50 acres. The objective of the test was to evaluate equipment and production capabilities, operating costs and environmental impacts of the operation.

   Honey Lake Power averaged 13 bone dry tons of juniper removed per acre of BLM land treated. Transportation costs to a 30 megawatt power plant 60 miles distant were a significant expense and Honey Lake indicated that a subsidy would be necessary for them to undertake large scale operations on BLM land. Impacts on the public land were at an acceptable level.

   Following this test, Honey Lake continued operations on adjacent private land with less restrictive environmental and conservation measures and averaged 16 bone dry tons of juniper removed per acre. Juniper harvesting operations have now expanded further on private land without monetary support of landowners.

   Several additional biomass operators have contacted the BLM and the United States Forest Service about the availability of public land for chipping operations and the subsidy question remains unresolved at this time. This is a particularly sensitive issue with many public land interests.

   The Alturas Field Office is one of four sites selected for a nationwide Joint Fire Sciences biomass extraction study entitled, "Costs, Impacts and Tradeoffs of Using State-of-the-Art Mechanized Fuels Treatment Systems to Modify Vegetation and Fire Behavior in Dense Western Juniper and Pinyon-Juniper Woodlands." Study results are not yet available.

   b) A proposal and business plan have been received to co-locate a mini-industrial biorefinery in the vicinity. The biorefinery is purported to process 1 ton of biomass per hour producing 1 million gallons of ethanol and green diesel per year. Is this a viable technology?

c) Is it feasible to site small one-megawatt biomass generating plants in close proximity to the juniper resource? What about portable microturbine technology? Does California's net metering legislation provide for small biomass plants?

d) What other emerging biomass technologies should be studied and considered?

3. Since biomass operators desire a stable and dependable resource base from which to operate, is Stewardship Contracting for up to 10 years an appropriate mechanism to achieve juniper removal objectives?

4. What are the potential impacts and effects of proposed western juniper treatments on wildlife habitat and Federally listed or sensitive species?

a) What site treatment restrictions or protection measures are needed to protect Federally listed or sensitive species?

5. What are the potential impacts and effects of proposed western juniper treatments on water quality?

a) What site treatment restrictions or protection measures are needed to protect water quality?

6. How will cultural resource inventories be completed on large scale treatment projects?

a) What site treatment restrictions or protection measures are needed to protect cultural resources including traditional cultural properties?

7. What site treatment restrictions or protection measures are needed to control the spread of noxious weeds?

8. What are the appropriate grazing management practices or guidelines in treated areas?

9. What are the potential impacts resulting from increased access related to juniper treatment projects?

Objectives

- Development of a comprehensive, coordinated, implementable 15-20 year strategy for western juniper management, across all ownership boundaries, in northeast California and northwest Nevada.

- Prioritization of western juniper treatment projects across the planning area with a base target of 20,000+ treated acres per year.

- Identification of acreages, locations and approximate tonnage of western juniper available for biomass energy production in northeast California and northwest Nevada (initial estimates place this figure at 130,000 bone dry tons per year).

- Development of a comprehensive list of conservation measures to be implemented on all site specific western juniper treatment projects.

Relevance to Priorities

The number one objective of this project is development of a comprehensive, coordinated, implementable 15-20 year strategy for western juniper management across the 6.6 million acre planning area in Nevada and California. The primary goal of the Strategy is to restore the health and integrity of the natural environment through a sensible reduction in current levels of juniper encroachment. Shearing and chipping of western juniper for biomass production has been demonstrated to be one of an assortment of tools which can be used to achieve this goal.

Over the past few years, this area of the country has been on the cutting edge of western juniper biomass production. With a comprehensive Juniper Management Strategy in place, we have the potential to produce an additional 15-20 megawatts of energy per year. Clearly this would be a **significant advance in biomass production and processing**. This technology would also be transferable to other areas of the West with similar western juniper or pinyon-juniper encroachment problems and could open up a vast untapped source of energy

Excess western juniper has proven to be a viable source of power **particularly suited to small or moderate sized cogeneration biomass plants**.

The potential to include small one-megawatt biomass generating plants or portable microturbine power plants in the Strategy would directly **address technical and institutional barriers associated with connections to the commercial power grid**.

All power plants and power production associated with this strategy would be **rural based**.

As discussed above, it is likely that successful biomass operations in this area will serve as a template for additional operations across the west resulting in a **significant contribution to sustainable and renewable energy supplies**. Increased domestic energy production means **greater energy security**.

The incidence of wildfire and the need for prescribed burns will also be **reduced** along with **greenhouse gas emissions**.

Rural economies will benefit not only from investment and employment associated with energy production but from a healthier landscape as well. The improved conditions for natural vegetation, wildlife populations and cleaner water will result in greater economic opportunities relating to tourism, livestock ranching and agriculture.

At least a half dozen separate interests have made proposals to various entities in northeast California and northwest Nevada relating to energy production from western juniper biomass. These include: shearing and chipping proposals, siting of cogeneration plants, co-location of mini-industrial biorefineries and the siting of one-megawatt biomass plants or portable microturbine power plants near the juniper resource. Demonstration plots have also been established confirming the environmental and economic viability of biomass operations. **There is no question of the commercial relevance of biomass operations associated with western juniper.**

The proposed Western Juniper Management Strategy EIS will focus specifically on:

(3) (A) (ii) evaluation of current and future biomass resource availability

(iii) development and analysis of land management practices and alternative biomass cropping systems that ensure environmental performance and sustainability of biomass production and harvesting

(iv) the land, air, water, and biodiversity impacts of large-scale biomass production, processing, and use of bio-based industrial products relative to other alternatives

Statement of Work

A broad based coalition of local, state and regional partners is currently developing a Preliminary Draft Western Juniper Management Strategy for northeast California and northwest Nevada. The planning area encompasses 6.6 million acres of land including both public and private ownership. Primary jurisdictions within the planning area include: United State Forest Service, Private and Bureau of Land Management. The Strategy is expected to be drafted by late August 2003.

Due to the potential impacts to the human environment from implementing the Strategy, it has been determined that an EIS/EIR will be needed to assess the effects of the Strategy prior to implementation. Due to the private and public land within the planning area, the EIS/EIR must comply with both NEPA and CEQA requirements. Once finalized and adopted, the Strategy is expected to guide western juniper management in the region for the next 15-20 years.

An independent contractor is needed to undertake development and completion of the Final EIS/EIR. The contractor must have the ability to be flexible in dealing with unplanned delays in the process.

The following is a general outline of the sequence of tasks associated with the EIS/EIR process and includes steps to meet NEPA/CEQA requirements for preparation of an environmental document with full public participation. It is anticipated that the project will require approximately 12 months to complete from awarding of the contract to adoption of the Strategy. Once the Strategy is adopted and implementation begins, site specific projects will tier off the Strategy EIS. Site specific environmental documentation will be completed as necessary.

TASK	PROPOSED SCHEDULE
EIS/EIR Development Contract Awarded	11/03
Project Management Plan Prepared	12/03
Notice of Intent to Prepare EIS/EIR Published	12/03
Begin Public Scoping	12/03-3/04
Draft EIS/EIR Issued	6/04
Public Comment on Draft EIS/EIR	6/04-9/04
Final EIS/EIR and Records of Decision Issued	11/04

Part II: THE STATEMENT OF CAPABILITIES

Congress created Resource Conservation and Development Councils as a way to engage local leaders in order to promote their local economy by leveraging limited federal dollars. Councils bring together private citizens and local, state and federal agencies to improve the economic, social and environmental well-being of their area.

The North Cal-Neva Resource Conservation and Development Council (RC&D) was formed in 1967. Its stated mission is to provide encouragement, promotion and development of economic diversity and community stability through the wise use of natural resources. The RC&D is a non-profit 501 c (3) grass roots organization that covers most of Modoc County, all of Lassen and Plumas Counties and eastern Shasta County in California and northern Washoe County, Nevada, which nearly duplicates the planning area for this project.

The mission of the RC&D is ideally suited for carrying out this project which requires the bringing together of four important participants and coordinating their varied contributions to the development of the Environmental Impact Statement (EIS). This task should go smoothly because among the project's participants and supporters are many of the RC&D's dues paying sponsors.

The key participants are, in addition to the applicant, are the Modoc National Forest, the Bureau of Land Management's Alturas Field Office and the County of Modoc.

The North Cal-Neva RC&D will administer the grant. It will interact with the EIS contractor and the project manager to pay the necessary invoices in the agreed upon fashion. It will file all the necessary reports with the grant funding source and maintain the required records needed to close out the grant upon completion of the project.

The Alturas Field Office (BLM) will be responsible with interacting with the project manager and the project contractor to keep the project on track and on schedule. They will provide all the needed information to the contractor that relates to the BLM lands within the project planning area and insure that the finished product complies with their agency's requirements.

The Modoc National Forest (MNF) will be responsible for providing to the project manager and the project contractor all necessary information relating to the MNF portion of the project. They will have the joint responsibility, along with the BLM, to insure that the project stays on schedule. They will also insure that the finished document meets the Forest Service's requirements for an EIS. MNF will have the additional task of selecting, hiring and administering the project manager with the personnel funds described in the budget.

Modoc County (County) will provide the required local match. The County will also request of the BLM and MNF "cooperating agency" status as allowed under the Council of Environmental Quality's National Environmental Policy Act (NEPA) regulations. This status will allow the County to provide the local expertise needed to fulfill the required socio-economic portion of the EIS. The County will also work, in conjunction with the RC&D, to provide the link to the private lands within the planning area of the project.

North Cal-Neva Resource Conservation and Development Council

Mark Steffek - Coordinator

Steffek will administer the grant. He has worked for the federal government for 26 years and specifically with grants for the last 10 years. He provided oversight for a recent Forest Service grant that has a direct connection to this project; the "Utilization and Marketing of Western Juniper Study". This grant also emphasized Steffek's public outreach skills as it included a successful workshop. He is currently administering a $542,000 CalFed grant for a watershed assessment of the Pit River, a major portion of this project's planning area. This grant is managed for the Pit River Alliance (which he chairs), a formalized collaborative group made up of several dozen agencies, non-governmental organizations and private landowners.

Alturas Field Office, Bureau of Land Management

Tim Burke - Field Office Manager

Curt Aarstad – Interdisciplinary Planner

Burke has 24 years with the Bureau of Land Management in various resource assignments, the last five as the manager of the Alturas Field Office. He oversees the Field Office budget and has extensive grant experience. He has been the principle drafter of the overall Western Juniper Management strategy.

Aarstad, trained in both range and soils, has a 26 year career with both the Forest Service and Bureau of Land Management. He has spent the last 15 years as a planner and has worked extensively with grants related to resource issues, most recently with watershed restoration and improvement. He has overseen award winning landscape level environmental planning documents.

Modoc National Forest

Stan Sylva—Forest Supervisor

Paul Bailey—Timber Program Manager

Nancy Gardner—Public Affairs Officer and Rural Community Assistance Administrator

Sylva has had a varied career with the Forest Service, including as a forester, district ranger and state legislature liaison. As Forest Supervisor he oversees the Modoc National Forest budget and staff. He will be the decision officer for any Forest level documents from this project.

Bailey manages the Forest timber program and oversees forest-level vegetative management projects. He has extensive experience in all levels of environmental analysis and worked closely with Aarstad on the Warner Mountain Range Project/Hackamore Landscape Analysis, which competed successfully for a National Watershed Demonstration Area grant.

Gardner has worked in grants and agreements administration for ten years concentrating in technical assistance to rural communities. She has worked often and successfully with Steffek in obtaining and implementing previous grants. Past grants include fuel hazard reduction, cogeneration plant and marketing juniper. She has coordinated efforts between the Forest and the Modoc County Resource Advisory Committee and is sought after as a meeting facilitator.

Modoc County

Sean Curtis—County Resource Analyst

Curtis created and implemented Modoc County's unique coordinated land planning program with the County's federal land management agency partners and it has evolved into a national model. In the past ten years the program has developed into a successful forum for solving difficult resource issues at the local level by involving federal, state and local stakeholders. The County is regularly contacted by other counties hoping tko replicate Modoc County's success in joint planning with the federal agencies. Curtis also chairs the Modoc County Resource Advisory Committee created by the Secure Rural Schools and Community Self-Determination Act and the County's Federal Land Use Review Committee.

This project will include extensive interaction between not only the four main participants, but also an extensive list of cooperators and interested parties:

LOCAL

Central Modoc Resource Conservation District

Modoc County Cattleman's Association

Pit River Watershed Alliance

Modoc County Fish, Game and Recreation Commission

Surprise Valley Watershed Group

Goose Lake Resource Conservation District

Lassen County Board of Supervisors

Hot Springs Irrigation District

Modoc-Washoe Experimental Stewardship Program

Surprise Valley Resource Conservation District

Northeast California-Northwest Nevada Resource Advisory Council

South Fork Irrigation District

Modoc County Farm Bureau

Modoc County Resource Advisory Committee

Pit Resource Conservation District

STATE AND FEDERAL

University of California Cooperative Extension

Lassen National Forest

California Department of Forestry and Fire Protection

Bureau of Land Management

Surprise Field Office

Eagle Lake Field Office

Lakeview District Office

California Department of Fish and Game

Oregon State University

U.S. Fish and Wildlife Service

California Biodiversity Council

U.S. Geological Survey

Congressman Wally Herger

Congressman John Doolittle

INDUSTRY

Honey Lake Power

Wheelabrator Environmental Systems

California Biomass Energy Alliance

Combining an issue with a certain degree of controversy with a planning area of Forest Service, BLM and private lands demands a level of collaboration and participation that will be substantial, even for a county well known for coordinated planning.

The Forest and the BLM will jointly interact extensively with the public, as required by NEPA, through both the scoping and public comment process of the EIS development. The County, with its cooperating agency status, will participate fully in this development by contributing to

the socio-economic portion of the plan. This will include working closely with the Forest and BLM planners as well as the project manager and project contractor.

The RC&D and the County will provide the link between the planning document and the private landowners. An important part of this project is the development of voluntary conservation practices that can be used for juniper treatment on private lands to complement the required practices that will regulate federal land juniper treatment in order to provide the overall landscape effect. This will demand close interaction between the County, RC&D, landowner organizations such as Farm Bureau, the Cattleman's Associations and the various Resource conservation Districts. A strong line of communications already exists to get this effort underway.

A multitude of planning efforts as well as many collaborative groups currently exist locally and the previously identified personnel already have a successful track record for working well together.

Part III: THE COST PROPOSAL

The budget for this project is $623,000.

The amount of the Biomass Research Development Initiative grant requested is $471,000. Modoc County will provide a match of $152,000.

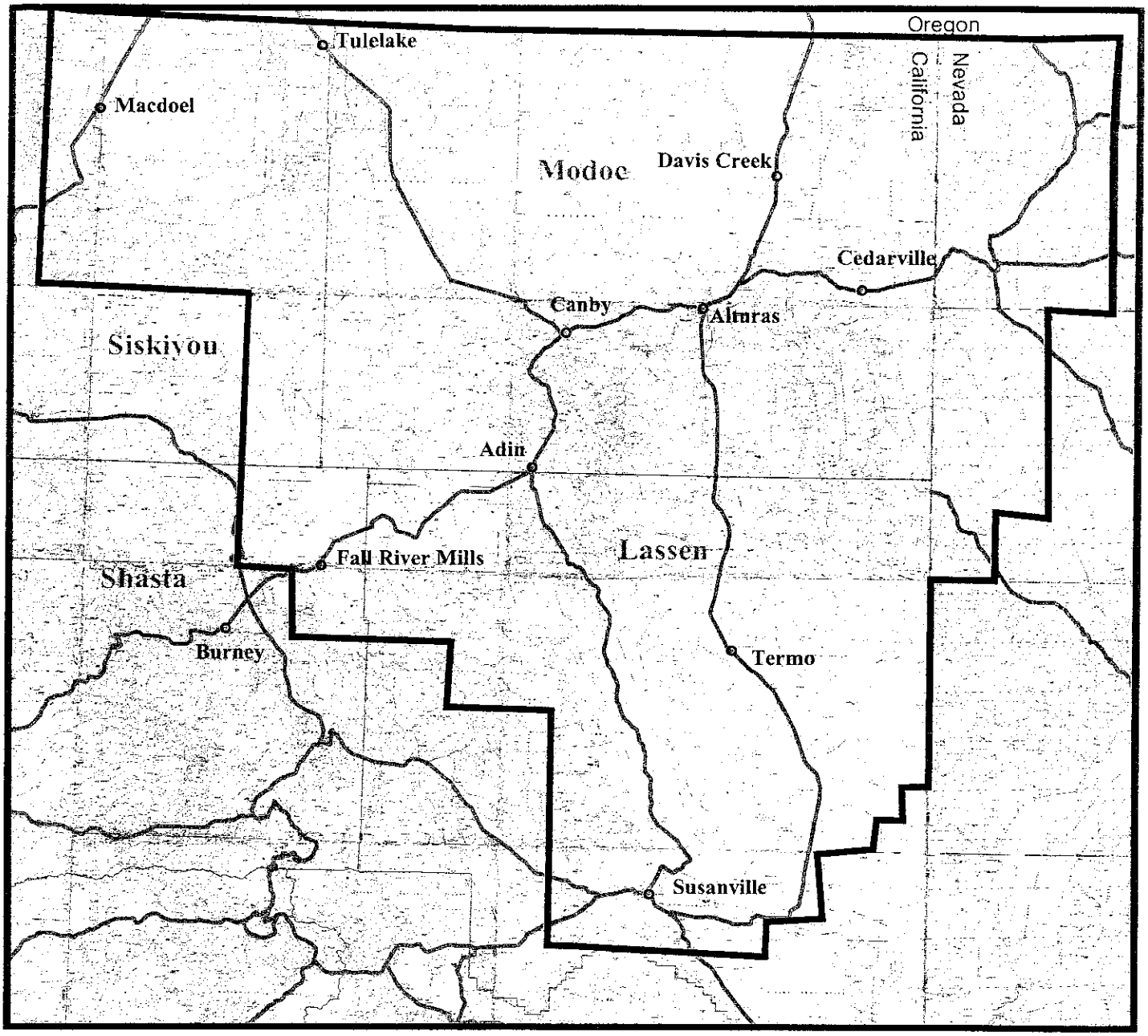
Personnel costs of $80,000 are budgeted, including benefits. This cost is to employ a project manager for the year at approximately a GS-12 level. This position will prepare the statement of work, develop the request for proposal for soliciting contractors to prepare the EIS and to provide day-to-day oversight of the contractor.

The primary cost in this budget is $500,000 for the contractor to prepare the Environmental Impact Statement. Day-to-day oversight will be provided by the project manager and regulatory oversight will be provided by Forest Service and BLM.

A total of $43,000 will be used by North Cal-Neva RC&D in order to provide grant administration.

Attachment 1

Juniper Management Plan



Legend

- Major Highways
- Juniper Plan Boundary
- County Boundaries

0 5 10 20 30 40

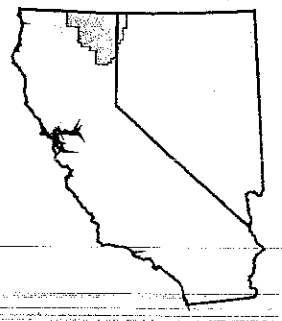
Miles

N

W E

S

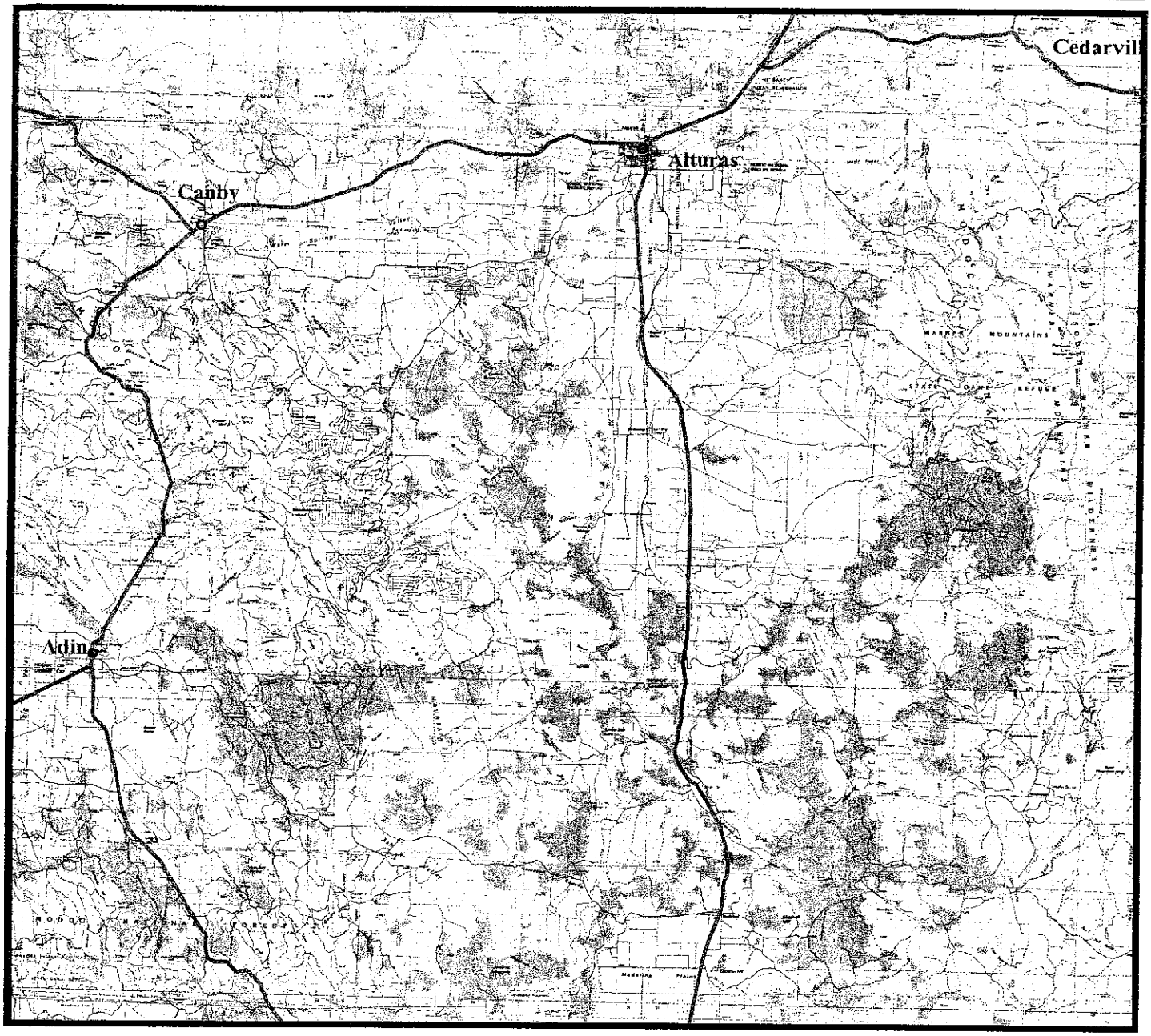
Location Map



Bureau of Land Management
Alturas Field Office
May 9, 2003

Attachment 2

Juniper Management Plan – Example of Analysis



Juniper

>20% Canopy Cover on Slopes <40% within 1 Mile of a Road

Major Highways

0 1.5 3 6 9 12

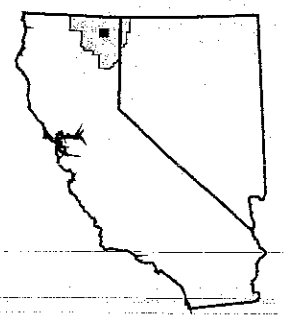
Miles

N

W E

S

Location Map



Bureau of Land Management
Alturas Field Office

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

2. DATE SUBMITTED	Applicant Identifier
5/15/2003	N/A
3. DATE RECEIVED BY STATE	State Application Identifier
4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier

1. TYPE OF SUBMISSION:

Application	Preapplication
☐ Construction	☐ Construction
☒ Non-Construction	☐ Non-Construction

5. APPLICANT INFORMATION

Legal Name:
North CAL-NEVA Resource Consesrvation and Development Council, Inc.

Organizational Unit:

Address (give city, county, State, and zip code):
306 West 12th Street
Alturas, Modoc, CA 96101

Name and telephone number of person to be contacted on matters involving this application (give area code)
Mark Steffek (530) 233-8868

6. EMPLOYER IDENTIFICATION NUMBER *(EIN)*:
6 8 — 0 3 6 0 6 8 9

7. TYPE OF APPLICANT: (enter appropriate letter in box) N

A. State
B. County
C. Municipal
D. Township
E. Interstate
F. Intermunical
G. Special District
H. Independent School Dist.
1. State Controlled Institution of Higher Learning
J. Private University
K. Indian Tribe
L. Individual
M. Profit Organization
N. Other (Specify) Non-Profit 501 C 3

8. TYPE OF APPLICATION:

☒ New ☐ Continuation ☐ Revision

If Revision, enter appropriate letter(s) in boxes) ☐ ☐

A. Increase Award B. Decrease Award C. Increase Duration
D. Decrease Duration Other (specify):

9. NAME OF FEDERAL AGENCY:
U.S. Department of Agriculture, U.S. Department of Energy

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:
8 1 — 0 8 7

TITLE: Biomass Research and Development Initiative

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:
Northeast California/Northwest Nevada Western Juniper Management Strategy EIS.

12. AREAS AFFECTED BY PROJECT(Cities, *Counties, States,* etc.):
Modoc and Lassen Counties, CA., Washoe, NV

13. PROPOSED PROJECT

Start Date	Ending Date
10/1/03	9/30/04

14. CONGRESSIONAL DISTRICTS OF:

a. Applicant	b Project
4th Congressional District, CA	1st Congressional Dist., NV, 2nd & 4th Congresstional District,

15. ESTIMATED FUNDING:

Federal	$ 471,000 00
Applicant	$ 0 00
State	$ 0 00
Local	$ 152,000 00
Other	$ 0 00
Program Income	$ 0 00
TOTAL	$ 623,000 00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE _____

b. No. ☒ PROGRAM IS NOT COVERED BY E. O. 12372
☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yes If "Yes," attach an explanation. ☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Type Name of Authorized Representative	b. Title	c. Telephone Number
Jerry Williams	Council Chairman	(530) 233-8868
Signature of Authorized Representative: Jerry Williams		e. Date Signed: 5-13-03

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Prescribed by OMB Circular A-102

INSTRUCTIONS FOR THE SF-424

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

This is a standard form used by applicants as a required facesheet for preapplications and applications submitted for Federal assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

Item:	Entry:
1.	Self-explanatory.
2.	Date application submitted to Federal agency (or State if applicable) and applicant's control number (if applicable).
3.	State use only (if applicable).
4.	If this application is to continue or revise an existing award, enter present Federal identifier number. If for a new project, leave blank.
5.	Legal name of applicant, name of primary organizational unit which will undertake the assistance activity, complete address of the applicant, and name and telephone number of the person to contact on matters related to this application.
6.	Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service.
7.	**Enter the appropriate letter in the space provided.**
8.	**Check appropriate box and enter appropriate letter(s) in the space(s) provided:** **-- "New" means a new assistance award.** **-- "Continuation" means an extension for an additional funding/budget period for a project with a projected completion date.** **-- "Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation.**
9.	**Name of Federal agency from which assistance is being requested with this application.**
10.	**Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested.**
11.	Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplications, use a separate sheet to provide a summary description of this project.
12.	List only the largest political entities affected (e.g., State, counties, cities).
13.	Self-explanatory.
14.	List the applicant's Congressional District and any District(s) affected by the program or project.
15.	Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, indicate *only* the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15.
16.	**Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process.**
17.	**This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit disallowances, loans and taxes.**
18.	**To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.)**

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Biomass Research	81,087	$	$	$ 471,000	$ 152,000	$ 623,000
2.						
3.						
4.						
5. Totals		$	$	$ 471,000	$ 152,000	$ 623,000

SECTION BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1)	(2)	(3)	(4)	Total (5)
a. Personnel	$ 65,000	$	$	$	$ 65,000
b. Fringe Benefits	15,000				15,000
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual	500,000				500,000
g. Construction					
h. Other					
i. Total Direct Charges (sum *of 6a-6h)*	580,000				580,000
l. Indirect Charges	43,000				43,000
k. TOTALS (sum *of 6i and 6j)*	$ 623,000	$	$	$	$ 623,000
7. Program Income	$ 0	$	$	$	$ 0

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Previous Edition Usable

Standard Form 424A (Rev. 7-97)
Prescribed by CMB Circular A-1 02

SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8. Biomass Research Development Initiative	$	$	$ 152,000	$ 152,000
9.				
10.				
11.				
12. TOTAL *(sum of lines 8-1 1)*	$	$	$ 152,000	$ 152,000

SECTION FORECASTED CASH NEEDS					
	Total 1st	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 471,000	$ 381,000	$ 30,000	$ 30,000	$ 30,000
14. Non-Federal	152,000				
15. TOTAL (sum *of lines 13 and 14)*	$ 623,000	$ 533,000	$ 30,000	$ 30,000	$ 30,000

SECTION BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16.	$	$	$	$
17.				
18.				
19.				
20. TOTAL (sum of lines 16-19)	$	$	$	$

SECTION OTHER BUDGET INFORMATION			
21. Direct Charges:		22. Indirect Charges:	Fixed, 10%, $430,000, $43,000

23. Remarks:
$152,000 Match from Modoc County, CA

OMB Approval No. 0348-0040

ASSURANCES - NON-CONSTRUCTION PROGRAMS

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

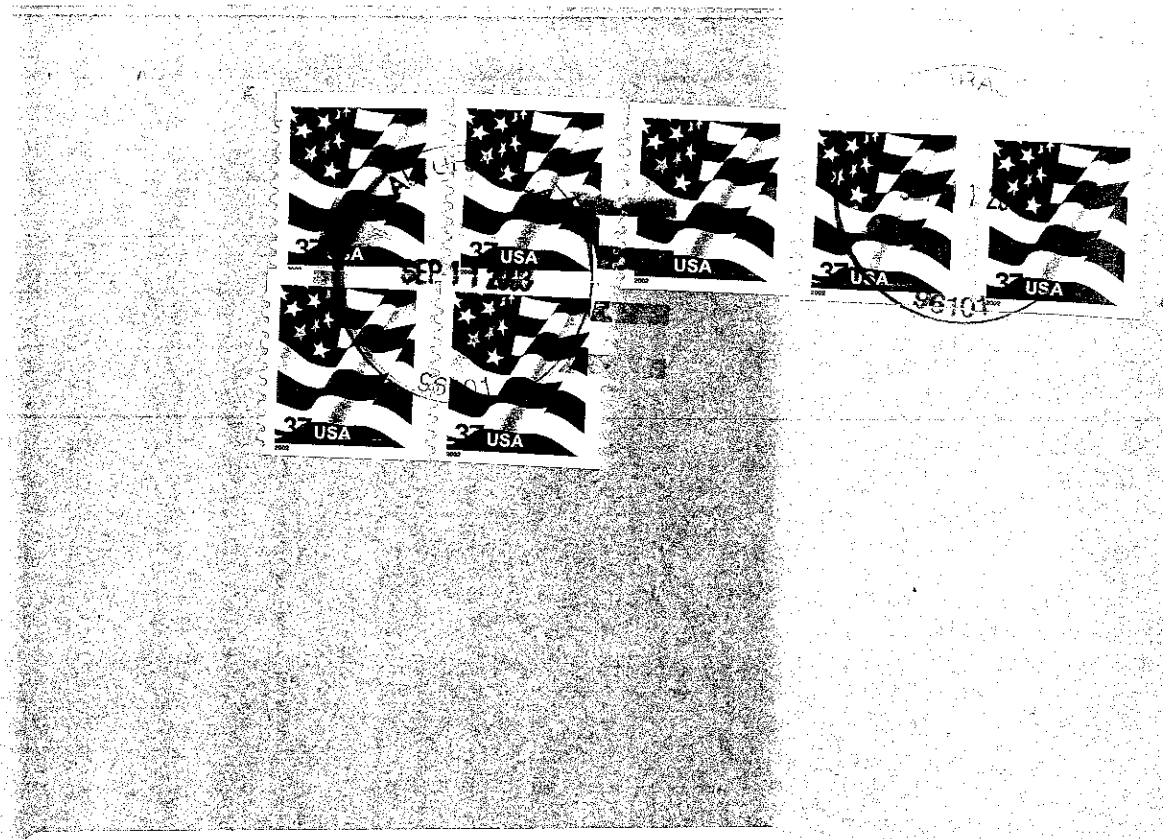
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
Terry Williams	Council Chairman
APPLICANT ORGANIZATION	DATE SUBMITTED
North CAL-NEVA Resource Consevation and Development Council	5-15-2003



FROM
Modoc County
Department of Administrative Services
114 East North Street
P.O. Box 1728
Alturas, CA 96101

Sierra Nevada Forest Plan Amendment
DSEIS
P. O. Box 221090
Salt Lake City, UT 84122-1090

Mariposa County
Board of Supervisors

District 1 ..... LEE STETSON
District 2 ..... DOUG BALMAIN
District 3 ..... JANET BIBBY
District 4 ..... GARRY R. PARKER
District 5 ..... BOB PICKARD

RICHARD H. INMAN
County Administrative Officer
MARGIE WILLIAMS
Clerk of the Board
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(209) 966-3222
1-800-736-1252
FAX (209) 966-5147
www.mariposacounty.org/board

September 9, 2003

SN-1477

Mr. Jack Blackwell
Regional Forester, Pacific Southwest Region
Sierra Nevada Forest Plan Amendment DSEIS
Post Office Box 221090
Salt Lake City, Utah 84122-1090

Re: Comments on the Sierra Nevada Forest Plan Amendment – DSEIS

Dear Mr. Blackwell,

Thank you for the opportunity to comment on the Sierra Nevada Forest Plan Amendment (SNFPA) Draft Supplemental Environmental Impact Statement (DSEIS). The Mariposa County Board of Supervisors is very concerned with the future of the Sierra National Forest in several areas. First, the forests in Mariposa County are dangerously heavily fueled to the point that the threat of catastrophic wild fire is at an all time high. Second, our country's demands for forest products have not decreased but in fact have increased in recent years. Third, past management practices of the Forest Service coupled with the effect of the environmental movement has crippled the private timber industry to the point of extinction.

We believe the solutions needed for managing the Sierra National Forest will require an aggressive plan that has many partners including but not limited to the Forest Service, the State of California, local governments, private industry, and private property owners. The DSEIS does not go far enough in addressing long term sustainability through the proposed fuel reduction plan contained in Alternative (S2) the preferred alternative, nor does this alternative go far enough as a long term solution by addressing forest products which we believe is a necessary component in sustainability for the long term.

In December 2001, you chartered the Sierra Nevada Forest Plan Amendment Review Team to evaluate the SNFPA for any needed changes relative to six specific areas. (1) *Pursue more aggressive fuels treatment while still protecting Old Forest conditions and species at risk.* We believe that Alternative (S2) fails to meet both the short and long term goals in addressing fuel treatment. Mariposa County desires the Forest Service to pursue more aggressive fuel reduction management such as described in Alternative (F4), which emphasizes fuel treatments in a strategic pattern and in watersheds with the greatest fire hazard and risk having the highest priority. In addition, Alternative (F4) will have the highest degree of protection for the Old Forest

and species at risk, is the most likely to reduce acres lethally burned each year by wildfire, and would provide the greatest protection for property within the Wildland Urban Intermix (WUI).

(2). *Achieve consistency with the National Fire Plan to ensure goals of community protection and forest health are accomplished.* Again, the preferred Alternative (S2) falls short of accomplishing this goal through an active management plan versus the aggressive management plan as described in Alternative (F4). The goals of the National Fire Plan are to improve fire prevention and suppression, reduce hazardous fuels, restore fire-adapted ecosystems, and promote community assistance. Alternative (F4) through a more aggressive approach better accomplishes these goals while offering greater flexibility to local communities. Alternative (F4) provides managers the flexibility for applying mechanical treatment however the treatment involving the mastication process should be further refined to avoid unnecessary foot and leg injuries to domestic animals and wildlife as a result of the sharp objects that are created because of this process. Further, it is desired that communities and local governments that are adjacent to the National Forest be given more weight in the public process. Far too often the views and concerns of citizens who reside and work in rural communities are not given enough emphasis. The Sierra Forest is so diverse that many management practices demand site specific preparations that are better understood by the local communities and governments.

(3). *Harmonize the decision with Herger-Feinstein Quincy Library Group (HFQLG) Forest Recovery Act to implement the pilot project to the fullest extent possible.* We agree that the SNFPA severely limits the Plumas and Lassen Forests, and the Sierraville ranger district in the Tahoe National Forest from implementing the HFQLG Pilot Project. We further agree with the recommendation to apply more effective vegetation management treatments while retaining the largest trees within treatment areas and applying HFQLG Record of Decision land allocations, standards, and guidelines and with proceeding with the Lassen Plumas Administrative Study to allow the forests to meet the objectives of the project.

(4). *Reduce the unintended and adverse impacts on grazing permit holders.* While the preferred Alternative (S2) is estimated to eliminate impacts on 14 grazing permit holders, the other two alternatives continue to impact allotments. The SNFPA fails to provide enough flexibility to maintain protection of sensitive species while reducing adverse impacts to grazing permit holders. Similar to what is in Alternative (F4), increasing forest manager's flexibility to adapt to site specific conditions would reduce the adverse impacts to grazing permit holders.

(5). *Reduce the unintended and adverse impacts on recreation users and permit holders.* In general all of the alternatives have localized effects on certain activities on national forest lands. The SNFPA should provide direction to the Forest Service to coordinate with local jurisdictions before adjusting rules and uses that may cause adverse impacts.

(6). *Reduce the unintended and adverse impacts on local communities.* The residents of Mariposa County would benefit greatly through aggressive wildfire protection measures as well as related improvements in air and water quality. We also support greater economic opportunities for our citizens through the use of wood products removed as part of hazardous fuels and forest health products. The Sierras are over loaded with vegetative fuels, which should be made available for solving part of California's energy shortage. These fuels will need subsidizing in some manner however, as mentioned earlier we believe the solutions can be achieved if a collaborative team is assembled made up of stake holders from all sectors. Further, we believe the short and long term solutions for healthy sustainable forests are through active forest management specifically through higher timber harvest volumes.

In conclusion, the Mariposa County Board of Supervisors request that when implementing the SNFPA that you provide to the greatest extent possible, the most aggressive fuel reduction process with the most flexibility to adapt a balanced site specific strategy for our communities. We also request for a time extension to allow for more public input.

Thank you for your thoughtful consideration of these comments and please contact me or Supervisor Balmain if you have any questions.

Sincerely,

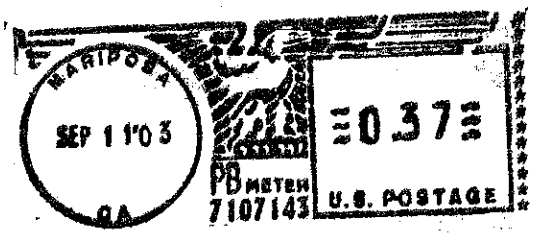
Bob Pickard

BOB PICKARD
Chairman

BP/mbh

cc: Congress Member, George Radanovich
Board of Supervisors
Regional Council of Rural Counties

Mariposa County
Board of Supervisors
P .O. BOX 784
MARIPOSA, CALIFORNIA 95338



Mr. Jack Blackwell
Regional Forester, Pacific Southwest Region
Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

84122241090 14

BOARD OF SUPERVISORS
COUNTY OF INYO

P. O. BOX N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373 • FAX (760) 878-2241
e-mail: inyobos@qnet.com

SN-1478

RECEIVED
SEP 15 2003
CAET

September 9, 2003

Sierra Nevada Forest Plan Amendment DSEIS
P. O. Box 221090
Salt Lake City, UT 84122-1090

Attention: Content Analysis Team

Gentlemen:

Thank you for giving us the opportunity to respond to the Draft SEIS. The Inyo County Board of Supervisors supports the comments made by the Regional Council of Rural Counties' (RCRC) to the Sierra Nevada Forest Plan Amendment DSEIS and which are being sent to you via RCRC. This DSEIS is a necessary improvement over the Final EIS issued in January 2001 and we hope that our comments will assist the Forest Service in resolving our remaining concerns.

The County of Inyo is specifically very concerned with the defense zones as specified. The record of decision defines intermix "as the area surrounding one structure for five acres." A quarter mile defense zone is authorized only for such qualifying communities. Defense zones extend approximately one-quarter mile from areas that have the density of one structure for five acres. The threat zone normally buffers the defense zone and it extends approximately one-quarter mile out from the defense zone. In some cases where structure density is less than one structure for five acres and greater than one structure for 40 acres a threat zone maybe delineated in the absence of a defense zone. As a general rule, if the structure density is less than one structure per five acres a defense zone is not established and therefore neither is the threat zone. Modeling was based upon one structure for forty acres. The record of decision reduces the available acres for protection by 50%. It would be Inyo County's recommendation to improve the network by redefining the wildland-urban interface to one structure per forty acres. To improve the network by establishing the defense zone from the point that would trigger community evacuation and where national forest system lands are contiguous enough to provide an effective fuel break. Also permit SPLATs on both sides of the defense zones where applicable and prioritize treatments on condition class two and three. The National Fire Plan specifies a network of defensible space be in place within the first decade. The DEIS states, "both the community protection and landscape fuel treatments are accomplished over a twenty to twenty-five year period." (pg. 39) Therefore Inyo County would be in support of adjusting the pace and scale of the fuel reduction strategy to be in place within the first decade.

In addition to the County's specific comments and those comments submitted by the Regional Council of Rural Counties, Inyo County remains committed to the long-range goals established through our very successful Inyo 2020 Forum, which are reiterated below and should be reflected and considered in the final EIS.

- Provide opportunities to obtain local consensus and support for any changes to public land designations, uses and/or access in Inyo County and address the concerns of local residents and public land users;

- Ensure, through prior economic analysis, that Inyo County's communities and business will not be adversely impacted by changes to public land management;

- Protect existing recreation, grazing, packing, mining, research, archeological and cultural uses on Forest Service lands, including access;

- Protect private property rights, including vested water rights, and access to private land inholdings and other lands that may be affected by adjoining lands;

- Ensure there is no net loss of revenues to local governments necessary to provide and maintain essential public facilities and services.

In conclusion Inyo County (a) welcomes the opportunity to comment and provide input into the Draft SIES and recognizes that it is a substantially better document than the original EIS; (b) recognizes and appreciates the Regional Forester's willingness to hear local issues and look forward to collaborating on those important local issues, which remain unresolved; (c) supports the comments submitted by RCRC in general; and (d) specifically urges the development of processes, which allow for local input and impact assessments prior to management changes in the Inyo National Forest.

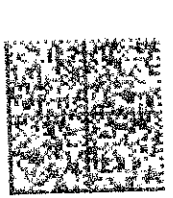
Sincerely,

Michael A. Dorame

Michael A. Dorame
Chairperson, Inyo County Board of Supervisors

pg

BOARD OF SUPERVISORS
COUNTY OF INYO
P. O. BOX N
INDEPENDENCE, CALIFORNIA 93526



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Sierra Nevada Forest Plan Amendment DSEIS
P. O. Box 221090
Salt Lake City, UT 84122-1090

84122K1090 B014

California Regional Water Quality Control Board
Central Valley Region
Robert Schneider, Chair

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

Sacramento Main Office
Internet Address: http://www.swrcb.ca.gov/rwqcb5
3443 Routier Road, Suite A, Sacramento, California 95827-3003
Phone (916) 255-3000 • FAX (916) 255-3015

SN-1479

11 September 2003

Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122

COMMENTS ON THE DRAFT SUPPLEMENTAL ENVIROMENTAL IMPACT STATEMENT (DSEIS) FOR THE SIERRA NEVADA FOREST PLAN AMENDMENT

Staff of the California Regional Water Quality Control Board, Central Valley Region (Regional Board), has reviewed the DSEIS prepared for the Sierra Nevada Forest Plan Amendment (SNFPA). The U.S. Forest Service (USFS) proposes to amend the land and resource management plans for the eleven national forests, and the purpose of the DSEIS is to explore the environmental effects of changing the standards and guidelines for vegetation management, grazing, and managing recreation use in sensitive species habitat.

This Regional Board is responsible for protecting water quality within the Central Valley, and implements and enforces the federal Clean Water Act, the Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.), and the Water Quality Control Plans for the Sacramento and San Joaquin River Basins and the Tulare Lake Basin. Our jurisdiction spans the Central Valley of California from the Oregon border in the north to the Tehachapi Mountains in the south, and nine of the eleven national forests that would be impacted are wholly or partially within that jurisdiction: Modoc, Lassen, Plumas, Tahoe, Eldorado, Stanislaus, Sierra, Sequoia and Inyo.

On January 30, 2003, this Regional Board adopted Resolution No. R5-2003-0005, Conditional Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities (Waiver). All waste discharges related to U. S. Forest timber harvest activities in the Central Valley must be regulated either by this conditional waiver, individual waivers or waste discharge requirements. In order to qualify for the Waiver, the USFS must comply with the requirements of all applicable water quality control plans, including water quality objectives and beneficial uses. This includes complying with State Water Resources Control Board (SWRCB) Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California (Antidegradation Policy). This policy requires that specific findings be made for discharges that reduce the water quality even when these discharges do not violate water quality objectives or impact beneficial uses.

Although the DSEIS states that it presents a range of alternatives, only two alternatives are discussed in detail. The first is the "no action" alternative (S1), which would continue with the management direction provided in the January 2001 Record of Decision (ROD) for the SNFPA. The second is the preferred alternative (S2), which would modify the standards and guidelines in the existing ROD for fuels, grazing and recreation management to provide more flexibility to local USFS managers. Our comments will focus on these two alternatives.

In our 10 August 2000 comment letter on the SNFPA DEIS, we concurred with the staff of the Lahontan Regional Water Quality Control Board that the DEIS failed to include an evaluation of potential compliance with water quality standards. The ROD did not address this concern, and neither does the DSEIS, although the Management Agency Agreement (MAA) between the USFS and the SWRCB requires that the USFS implement Best Management Practices to meet water quality objectives and protect beneficial uses. Since there is no quantitative evaluation of potential water quality impacts, our comments on the alternatives will be based on a qualitative evaluation. Although it has not been proven that the ROD, alternative S1, will be fully protective of water quality, we believe that it is more protective than the current preferred alternative S2. We recommend that USFS recommit its resources to implementing the ROD, the product of more than a decade of collaborative planning efforts.

Reasons why we support the continued implementation of the ROD

In general, we are concerned with the scope and timing of the DSEIS. We believe the scope to be overly broad and that not enough time has been allowed for ROD implementation to truly evaluate its functionality. On 16 November 2001, the Chief of the USFS affirmed the SNFPA ROD, but directed the Pacific Southwest Region to review certain elements of the ROD relative to the following concerns: increased level of recent fire activity; the relationship between the SNFPA and national firefighting efforts; and the relationship between the SNFPA and the Herger-Feinstein Quincy Library Group (HFQLG) Forest Recovery Act.

The DSEIS went beyond these issues to include impacts to grazing, recreation and local communities although the Chief's directions were cited as the impetus for this effort. These additional issues were used in the DSEIS as the basis for weakening standards and guidelines in terms of water quality protection. Also, there has not been adequate time to truly evaluate the functionality of the ROD, given that it was issued in the beginning of 2001 and the review team process leading to the DSEIS began later that same year. The lengthy USFS planning and contracting process would not have allowed implementation of many ROD projects to date.

Specifically, our concerns with the preferred alternative, S2, are based on the potential impacts to water quality and sensitive species dependent on aquatic or riparian habitat from the following:

- increased road construction,
- increased timber volume,
- increased mechanical treatment for fuels and forest health, and
- decreased protection of wet meadows and associated streams and springs.

According to the DSEIS (p.21), implementation of Alternative S2 will result in an increase in the number of miles in the forest development roads and the collector system. Specifically, in

the HFQLG pilot project area, it would result in an additional 11 miles of road construction, 110 miles of road reconstruction, 43 miles of temporary road construction and 640 miles of road maintenance (DSEIS, p.237). There is also mention of road decommissioning but no specifics were given with regard to the number of miles that would be decommissioned. Roads are widely acknowledged as one of the most significant sources of sediment to surface waters in forested watersheds.

Also, alternative S2 would produce the most timber volume overall (DSEIS, p.19) and would add objectives for enhancing forest health, maintaining ecosystem structure and composition, and restoring ecosystems after large wildland fires and other large-scale disturbance events (DSEIS, p.7). The DSEIS (p.193) states that there are a projected 3.2 million acres having pest-drought driven forest health problems, and that available funding suggests that treatments for forest health will be in the range of 1,000 acres per year. There are no assurances, however, of the maximum area to be treated per year nor were standards provided to define areas in need of treatment to enhance forest health.

Our concern with the proposed increased timber volume, regardless of whether it is achieved as a part of fuels treatment or through a timber sale, is the roads, landings and skid trails needed to obtain the timber and the water quality impacts associated with those features in terms of sediment production. There is also the associated concern that the reduction of canopy can elevate water temperature and have a negative impact on species dependent on cold water habitat. We have similar concerns with the forest health enhancement objective because it could entail disturbance of millions of acres of forested lands, and the details of this new objective are relatively undefined.

According to the DSEIS (p.29), many aquatic and riparian-dependent species such as willow flycatcher and Yosemite toad were found by the Sierra Nevada Ecosystem Project report to be at risk of extirpation. Alternative S2 moves away from the measures to protect habitat for these species and allows for locally determined alternative management strategies. The DSEIS freely admits that although the intent of these alternative management strategies is to provide for and protect habitat for these species, there are implementation difficulties that may increase risk of success at avoiding impacts to willow flycatcher (p.73) and Yosemite toad (p.76).

Specifically, both alternatives S1 and S2 are designed to provide protection for the Yosemite toad breeding and rearing season by excluding livestock grazing from standing water and saturated soils in wet meadows and associated stream channels and springs. If physical exclusion of livestock is impractical, then livestock are to be excluded from the entire meadow until the meadow has been dry for two weeks. Alternative S2 allows for this exclusion to be waived if a plan is developed to minimize impacts to the Yosemite toad by managing the movement of livestock around the wet areas (DSEIS, p. 218).

The DSEIS goes on to state that the consequences of implementing Alternative S1 based on this assessment is that there is a reasonable probability that some percentage of Yosemite toad breeding and rearing areas will have livestock grazing and moving through them. Alternative S2 is likely to have a higher percentage of wet meadows where this effect will occur. Given that the Yosemite toad is a USFS Region 5 Sensitive Species and has been determined by the U.S. Fish

and Wildlife Service as warranted for listing, the USFS should be moving towards more protective standards, not less, as proposed in S2.

One of the beneficial uses in our Water Quality Control Plan is Wildlife Habitat which is defined as the uses of water that support terrestrial or wetland ecosystems including but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources. As discussed earlier, the USFS entered into a MAA with the SWRCB and agreed to protect beneficial uses. This means any policy developed by the USFS must, at a minimum, preserve wildlife habitat as defined above.

For all the reasons listed above, we request that the USFS continue with the ROD and select S1 as their preferred alternative. It is the alternative that comes closest to meeting the requirements of the MAA and our Waiver. The ROD does allow the USFS considerable flexibility to address the fire hazard near communities in the defense zone of the Wildland Urban Intermix. We would recommend that the USFS continue to work aggressively to suppress fuels in those areas and work within the adaptive management element of the ROD to address the fuels issues in the other land allocations.

Thank you for the opportunity to provide these comments. My staff enjoys a good working relationship with your staff at the Regional Office and at the national forests. Recently, my staff conducted several field visits of thinning projects at the Eldorado and Tahoe national forests and found the BMPs for water quality protection at those projects to be appropriate. If you have any questions regarding our comments, please contact Sue McConnell of my staff at (916) 255-3098 or at mcconns@rb5s.swrcb.ca.gov.

Thomas R Pinkos

THOMAS R. PINKOS
Executive Officer

cc: Robert Schneider, Chair, Central Valley Regional Board, Sacramento
Celeste Cantu, Executive Director State Water Resources Control Board, Sacramento
Tom Howard, Deputy Director, State Water Resources Control Board, Sacramento
Harold Singer, Executive Officer, Lahontan Regional Board, South Lake Tahoe
James Pedri, Assistant Executive Officer, Central Valley Regional Board, Redding
Gaylon Lee, State Water Resources Control Board, Sacramento
Laura Fujii, U.S. EPA, San Francisco
Jack Blackwell, Regional Forester, Pacific Southwest Region, U.S. Forest Service, Vallejo
Mike Chapel, U.S. Forest Service, Sacramento
Brain Staab, U.S. Forest Service, Vallejo
Craig Thomas, Sierra Nevada Forest Protection Campaign, Sacramento

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SN-1482

September 9, 2003

Mr. Jack Blackwell
Regional Forester, Pacific Southwest Region
U.S. Forest Service
1323 Club Drive
Vallejo, California 94592

Dear Mr. Blackwell:

There are several important facts concerning our forests that need immediate attention and must be taken into consideration when commenting on the Sierra Nevada Forest Plan Amendment Draft Supplemental Environmental Impact Statement. (1) Forests are dangerously heavily fueled to the point that the threat of catastrophic wild fire is at an all time high. (2) Our citizen's demands for forest products have not decreased but in fact have increased in recent years. (3) Past United States Forest Service management practices coupled with the effect of the environmental movement, has crippled the timber industry and resulted in the demise of nearly every saw mill in the Sierras. In fact, the closure of the Wetzel Oviat saw mill occurred just last month reducing the number of operating saw mills in the Sierra to just one large company and one smaller competitor.

Without a healthy timber industry, California can neither produce the amount of forest products that our citizens require or take advantage of the timber industry as a forest management tool. A sad but true fact, is that while our Sierra forests are dying of disease and insects, or are being destroyed by wild fires, California is importing most of its forest products from areas that are more sensitive environmentally and less productive. The Sierras Forests are more than capable of meeting the demands of California citizens for forest products. The excessive vegetative fuels in our forests could be used as a solution for California's growing energy crisis by using the massive amount of biomass generated in the Sierras to produce energy in several different forms including electricity.

The Sierra Framework and the proposed amendments do not go far enough in addressing long term sustainability, not only for the forest health but also in meeting our citizen's needs. Emphasizing the protection of the Wild land Urban Interface is probably the best we can do in the short term, however we should simultaneously address the long term solution of proper management of the forest. This includes pre-fire preparation and post-fire preparation, and developing a stable long-term resource to encourage the rebuilding of the timber industry infrastructure. I also believe that

the forest service should put more emphasis on rural county citizens as well as local government participation in forest management practices. The Sierras are so diverse that many management practices demand site specific management that is better understood by local citizens who live and work in the forest environment.

Thank you for the opportunity to comment on the Sierra Nevada Forest Plan Amendment Draft Supplemental Environmental Impact Statement.

Sincerely,

Doug Balmain

DOUG BALMAIN
Supervisor, District 2

DB/mbh

Mariposa County
Board of Supervisors
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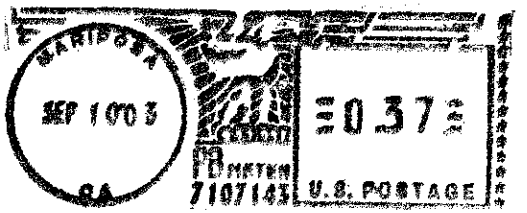

Mr. Jack Blackwell
Regional Forester, Pacific Southwest Region
Sierra Nevada Forest Plan Amendment DSEIS
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TULE RIVER TRIBAL COUNCIL
TULE RIVER INDIAN RESERVATION

SN-1595

September 10, 2003

Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, Utah 84122-1090

The Tule River Tribal Council (TRTC) submits these comments regarding the Sierra Nevada Forest Plan Amendment Draft Supplemental Environmental Impact Statement.

In previous correspondence with the Pacific Southwest Regional Forester and Review Team Leader for the Sierra Nevada Forest Plan Amendment (SNFPA), the TRTC has been supportive of a thorough review of the 2001 Record of Decision. Early in the SNFPA review process the TRTC identified the following three focus areas of particular interest to the Tribe: fuel treatments, consistency with the National Fire Plan, and impacts on local communities. We support a revised SNFPA that gives due consideration to these areas.

The preferred alternative, Alternative S2, proposes much-needed revisions to existing standards and guidelines to allow for more aggressive fuels treatments and a reduction of adverse impacts on local communities. Whether or not these changes to existing guidelines are sufficient to result in effective fuels management across landscapes remains to be tested. It appears that revisions remain rather prescriptive and will limit the fuels treatment options available to Forest Service field personnel, and subsequently will limit the effectiveness of reducing the hazards of catastrophic wildfire.

The TRTC supports:

- Amending the Record of Decision and implementing revised standards and guidelines that will result in an effective on-the-ground fire and fuels strategy;
- Amending the Record of Decision to proactively treat more acres of hazardous fuels on an annual basis;
- Amending the Record of Decision to emphasize utilization of wood products from vegetation management and restoration projects.

The TRTC has the following concerns with the DSEIS:

- Under Alternative S2, 75 percent of fuels treatments during the first 5 years of implementation will be located within the wildland urban interface (WUI). This clearly indicates that only minimal treatment will occur outside the WUI, an area that encompasses the majority of wildland acres. Most of the Forest Service lands that are located adjacent to the Tule River Indian Reservation are not considered a

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part of the WUI zone. We are therefore concerned that effective fuels treatment will not occur in the areas that currently pose a significant wildfire hazard to Tribal resources.

- Forest health and pest management is given little emphasis. Under Alternative S2, it appears that forest health treatments outside of SPLATs are given little consideration. This, combined with the focus on fuels treatment in WUIs, will likely result in a decline in forest health within the wildland areas. This in turn will adversely impact Tribal forestlands, as insect and disease outbreaks and wildfires do not acknowledge administrative boundaries.
- The DSEIS states, on page 48, that "in old forest emphasis areas, smaller areas (less than 10 acres) of dead and dying trees are generally not salvaged". Most of the Forest Service lands that adjoin the Reservation are allocated as "Old Forest Emphasis". Implementation of this '10-acre minimum' policy is not compatible with Tribal forest management objectives, and presents a significant forest health and fire management threat to the Tribe. We suggest this acreage minimum be eliminated, allowing local Forest Service managers to work collaboratively with neighboring non-federal ownerships to address forest health concerns before they become problematic.
- DSEIS page 47 states that "restoration activities include removal of excess dead wood…'. This guideline needs to be more flexible to allow for the removal of partially damaged trees and those that are judged to be susceptible to insect attack. Recent fires in our vicinity have resulted in an increase of forest insect activity in partially burned trees. This, again, is a forest health concern that could impact Tribal resources.
- The land allocations under the SNFPA for Forest Service lands surrounding the Tule River Indian Reservation are primarily old forest emphasis, southern sierra fisher conservation, spotted owl home range core areas and protected activity centers, and WUI threat zones. This entire area has also been analyzed by the Forest Service as "high" fire risk and hazard index, and the Tule River Indian Reservation is categorized as a "community at risk" as a result. The TRTC is concerned that the hazardous fuels that are a primary component of these "high" ratings will remain untreated or will receive little treatment given the SNFPA land allocations and associated management emphasis assigned to them.
- The Forest Service projects an average of 8 to 10 large snags per acre will result under Alternative S2. This seems more than enough to meet wildlife needs and will present a hazard for fire suppression efforts and presuppression project implementation. Well planned timber salvage and sanitation projects could effectively reduce this projected snag density to a more manageable and less hazardous level.
- There will likely be increasing constraints, particularly in the central and southern Sierra Nevada region, on the use of prescribed fire. Constraints due to air quality

and appropriated funds will limit the number of fuel treatment acres accomplished. Fuel treatment methods should be flexible enough to allow mechanical treatments in all of the land allocations.

The Tule River Tribal Council acknowledges the effort of the Pacific Southwest Region to revise the Sierra Nevada Forest Plan. We hope that the final SNFPA will adopt revisions that result in effective fuels management that modifies wildland fire behavior and prescribes forest health treatments across broad landscapes.

Sincerely,

Neil Peyron, Chairman
Tule River Tribal Council

Cc: Dale Bosworth, Chief of the Forest Service
Jack Blackwell, Pacific Southwest Regional Forester
Bodie Shaw, Director, Office of Tribal Relations, U.S. Forest Service
Art Gaffrey, Supervisor, Sequoia National Forest
Sonia Tamez, Tribal Relations Program Manager, Pacific Southwest Region

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SN-1596

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September 11, 2003

United States Forest Service
SNFPA Draft SEIS
P.O. Box 221090
Salt Lake City, Utah 84122-1090

Attention: Content Analyis Team

Comments on Draft SEIS for the Sierra Nevada Forest Plan Amendment

The purpose of this letter is to provide specific comments and recommendations from the California Department of Fish and Game (Department) regarding the proposed forest plan amendment as it relates to the State-listed endangered willow flycatcher (*Empidonex traillii*). The Department also participated in the review of this plan amendment by the California Resources Agency (Agency) and refers you to the comments provided as a result of that effort as well.

The Department is a member of the Sierra Nevada Willow Flycatcher Working Group (Working Group) including the subgroup working on conservation strategies for this species. The Working Group consists of experts on the ecology of the flycatcher that represent state and federal agencies, non-governmental agencies (NGOs), and private consultants. The Working Group meets periodically to discuss the status of the species in the Sierra and to devise strategies for its recovery. The Department views this Working Group as part of an *ad hoc* team that is developing conservation strategies for this state-listed endangered species. As such, the work of the group is considered a step towards developing a conservation strategy for this species that should be carefully considered by the U.S. Forest Service (USFS) in planning future actions.

Factors causing the decline of the willow flycatcher in the Sierra Nevada are summarized in the Conservation Assessment for the species (Green et al. 2003). Briefly, the Assessment identifies meadow degradation/drying, meadow restoration, and cowbird parasitism as the primary factors the USFS has some control over with regard to the fate of the species in the Sierra Nevada. The Assessment lists the following activities as most important for the USFS to conduct with regard to willow flycatcher management:

- Manage meadow hydrology so that meadows remain wet throughout the breeding cycle
- Implement a willow flycatcher monitoring program investigating population trend, demography, and habitat conditions
- Restore degraded meadows to nesting habitat condition that increases opportunities for the flycatcher population to recover (and eventually be delisted by California)

- Lessen the impact of brown headed cowbird (*Molothrus ater*) brood parasitism on willow flycatcher populations

After reviewing the Draft SEIS, the Department believes that the USFS preferred Alternative S2 has a high probability of promoting a continued decline in abundance of the willow flycatcher population in the Sierra Nevada Forest Plan Amendment (SNFPA) planning area, thus bring it closer to extirpation in California.

As outlined in comments submitted to you separately by the Working Group, the following actions are necessary, at minimum, to avoid the high probability of continual decline in willow flycathcer numbers and restriction of occupied range:

1. **Complete a comprehensive Conservation Strategy within 6-9 months**. USFS Region 5 intended that the completed Conservation Assessment be followed by a detailed plan, the Conservation Strategy, which would specify how stabilization and eventual maintenance of a viable willow flycatcher population could be achieved. With the focus of Alternative S2 on flexibility in local resource management, development of the Conservation Strategy takes on increased importance. Without a comprehensive plan that identifies priority locations for restoration and other actions, managers can not develop local management plans that reflect the overall needs of the willow flycatcher. Without such a Conservation Strategy, the decline of the species will likely continue.

2. **Implement the Regional willow flycatcher monitoring/demography study plan**. A detailed plan for monitoring the willow flycatcher was prepared by Morrison et al. in 2003. This plan, which incorporates the ongoing demography study, has been approved by USFS Region 5. This plan goes beyond documenting status and trend, and identifies factors that appear to be responsible for the decline of the population. These factors include degraded habitat condition, predation of nestlings, cowbird parasitism, and several other factors. Additionally, the ongoing demography study has gathered a solid baseline of data that can be incorporated into future research on willow flycatcher.

3. **Remove cattle from meadows occupied by breeding willow flycatchers on a year-round basis**. Allowing grazing, including late season grazing, in occupied meadows is incompatible with stabilization of existing numbers and eventual recovery of the willow flycatcher population and meadow restoration. The substantial, negative impact of grazing on flycatcher habitat is well documented in the Conservation Assessment, as is the role cattle play in attracting cowbirds to breeding locations. The direct impacts of grazing on flycatchers (e.g. trampling nests) cannot be adequately studied in the Sierra Nevada because of the existing small population size of the willow flycatcher.

There are a number of additional issues that should be included in any revision of the selected alternative so that it has a better probability of reversing the decline of the willow flycatcher. These issues include using forest level decision making in resource management decisions; providing adequate emphasis or guidance on the need for restoring degraded meadow habitat; and implementing cowbird control to support successful flycatcher reproduction. The Draft SEIS should reflect the data and recommendations contained in the Conservation Assessment (Green et al. 2003), as well as those in the willow flycatcher population and habitat monitoring plan (Morrison et al. 2003). In addition, Alternative S2 and the Draft SEIS in general do not adequately address the issue of cumulative effects on the willow flycatcher population. These issues are discussed in more detail in the comments submitted by the Working Group.

Below are additional comments that should be considered when revising the Draft SEIS.

A. Protect all known historically occupied willow flycatcher breeding sites.
   a. This provision was removed from S2 (it is included in S1) and is a minimum needed, if combined with restoration of these sites, to stabilize (but not likely increase) the flycatcher population.
   b. We suggest creating willow flycatcher PAAS (Protected Activity Areas) for the locations where more than 2 territories are known to occur.

B. Modify or remove/relocate roads/activities that impact meadow hydrology and overall meadow ecology.
   a. Roads disrupt hydrological patterns and lead to meadow drying. New roads should not be allowed in meadows unless they are temporary and part of emergency actions (e.g., fire control).
   b. Camping and other recreational activities can degrade meadow vegetation and disturb breeding flycatchers.

C. Initiate active cowbird control (adults and/or egg/nestling management) in any location (meadow) where parasitism frequency is greater than 25%. Note that this recommendation applies to individual meadows.
   a. Trap and remove adult cowbirds.
   b. Continue the practice of cowbird egg addling and nestling removal (as implemented by the Demography Study team).

D. Explore development of forage banks.
   a. Develop a mechanism for providing ranchers with alternative grazing areas devoid of existing willow flycatcher habitat and populations when locations within current leases are withdrawn for conservation reasons. This would allow for long-term sustainability of grazing while protecting sensitive breeding sites and sites undergoing restoration.

E. Assess the potential for southwestern willow flycatcher occurrence in the southern Sierra Nevada.
   a. Potential exists that *E.t. extimus* occurs in the southern Sierra at relatively high elevations (e.g., Sequoia NF and southern Inyo NF)
   b. Birds located in these regions should be managed as *E.t. extimus* (i.e., federally endangered) unless shown by genetic analysis to be a different subspecies.

The Department offers these specific comments and recommendations regarding the proposed forest plan amendment as it relates to the State-listed willow flycatcher. The Department also participated in the review of this plan amendment by the California Resources Agency and refers you to the comments provided as a result of that effort as well.

If you have any questions regarding these comments, please contact Mr. Ron Schlorff of my staff at (916) 654-4262 or me at (916) 653-3444.

Sincerely,

Dale T. Steele, Supervising Biologist
Species Conservation and Recovery Program

cc: Mr. Greg Greenwood
Resources Agency
Sacramento, California

Department of Fish and Game
Sacramento, California

Mr. Eric Loft
Mr. Ron Schlorff
Dr. John Gustafson

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Department of Fish and Game

Fax

To: SNFPA Draft SEIS **From:** Yolanda Harnage for Dale T. Steele

Fax: 801-517-1014 **Pages:** 5 (including cover sheet)

Phone: **Date:** September 12, 2003

Re: **CC:**

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• **Comments:**

SN-1946

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 23, 2003

Jack A. Blackwell, Regional Forester
USDA Forest Service
Pacific Southwest Region [R5]
1323 Club Drive
Vallejo, CA 94592

Subject: Draft Supplemental Environmental Impact Statement (DSEIS) for the Sierra Nevada Forest Plan Amendment (SNFPA) [CEQ #030263]

Rating: Environmental Objections -- Insufficient Information (EO-2)

Dear Mr. Blackwell:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and Section 309 of the Clean Air Act. Our detailed comments are enclosed.

We have rated the preferred alternative in the DSEIS as Environmental Objections - Insufficient Information (EO-2). The proposed increase in mechanical treatments, less prescriptive grazing management for wet meadows, and continued deferral of roads issues will result in greater adverse impacts to water quality than the previous ROD. The forest management direction set forth by the SNFPA is far-reaching because of the geographic scope and important natural resources that are at stake. We acknowledge the vital need to address the risk of catastrophic fire and support actions to do so. However, we believe the preferred alternative will set a precedent for future actions that collectively could result in significant impacts to water quality.

We request the Forest Service provide additional information in the Final Supplemental EIS (FSEIS) that fully discloses the water quality and aquatic effects of roads; the status, management, avoidance and mitigation of these impacts, and the costs of the Forest Service transportation system associated with Alternative S2. The Sierra Nevada Ecosystem Project (SNEP) report and 1998 Sierra Nevada Science Review clearly identified roads as a major cause of water quality problems and adverse impacts to aquatic ecosystems which should be addressed as soon as possible.

We have also included several recommendations to disclose information needed by the public and decision makers, as required under NEPA. While we recognize the challenge of presenting and synthesizing a tremendous amount of information and input from over a decade, it is important that the Forest Service clearly explain the evolution of the management approach now being proposed. The FSEIS should more clearly describe the scientific basis for the current management direction under purpose and need, address inconsistencies in the alternatives analysis, and reaffirm the Forest Service's commitment under the previous ROD to develop a multi-agency body to collaboratively address and resolve management issues.

We appreciate the opportunity to review this DSEIS and are committed to working with the Forest Service to resolve outstanding issues. When the FSEIS is released for public review, please send two copies to the address above (mail code: CMD-2). EPA's rating and a summary of our comments will be published in the *Federal Register*. Please see the enclosed Rating Factors for a description of EPA's rating system. Questions regarding this letter should be directed to Laura Fujii, the lead reviewer for this project at (415) 972-3852 or fujii.laura@epa.gov, or Lisa Hanf, the NEPA Review Coordinator for EPA Region 9, at 415-972-3854 or hanf.lisa@epa.gov.

Sincerely,

/s/ by Tai-Ming Chang for

Enrique Manzanilla, Director
Cross Media Division

Enclosures:
Summary of EPA Rating Definitions
Detailed Comments

cc:
Kathleen S. Morse, IDT Leader, USDA Forest Service
Analysis Team, SNFPA DSEIS, Salt Lake City
David Peters, Quincy Pilot Project, USDA Forest Service
Jacob Martin, Section 7 Consultation, US Fish and Wildlife Service

EPA DETAILED COMMENTS ON THE SIERRA NEVADA FOREST PLAN AMENDMENT DRAFT SUPPLEMENTAL EIS, SEPTEMBER 23, 2003

The Draft Supplemental EIS (DSEIS) analyzes options for revising the decision made in the January 2001 Record of Decision for the Sierra Nevada Forest Plan Amendment (SNFPA). The proposed action, Alternative S2, was developed in response to changed circumstances and new information identified in the year-long review of the SNFPA Record of Decision (ROD). This new alternative significantly changes the forest management practices that were adopted in the previous ROD and eliminates spotted owl mitigation measures adopted in the Herger-Feinstein Quincy Library Group Forest Recovery Act Project (Quincy Pilot Project) ROD. The S2 alternative has been identified as the Forest Service's preferred alternative.

EPA has been a participant in the Sierra Nevada Framework, the development of the SNFPA EIS, and the review of the SNFPA Record of Decision. Our concerns and objections have been raised in our comments in these forums and in our comments on the SNFPA Environmental Impact Statement (EIS) and the Quincy Pilot Project EIS. These comments are incorporated by reference.

Water Quality Issues

As the designated water quality management agency under the Clean Water Act Section 208 Management Agency Agreement, the Forest Service is required to implement Best Management Practices and other measures to achieve full compliance with all applicable State water quality standards. The 2002 Clean Water Act Section 303(d) list identifies over 50 streams impaired by excessive sediment, nutrients or pathogens associated with roads, silvicultural activities and/or grazing throughout the Sierra Nevada.

The DSEIS continues to defer the full environmental analysis and management decision associated with the Forest Service transportation system in the Sierra Nevada region. The rationale for this deferral is not stated. Sufficient information is not provided to determine the potential impacts (i.e., increased sediment loads, in-stream habitat modifications, increased run-off) on impaired streams from new roads, landings and other land disturbances associated with increased mechanical harvesting. Sufficient information is also not provided to ensure that the proposed changes to forest practices will not likely increase sedimentation, further degrading existing poor water quality conditions.

The Aquatic/Riparian Standards and Guidelines (S&Gs) for Alternative S2 are less protective of water quality and riparian resources than the SNFPA ROD (Modified Alternative 8) in the following ways (Appendix A, pps. 251 - 265):

- S2 does not require project-specific cumulative watershed effect analysis to be conducted.

- S2 does not require assessment of road, trails, off-highway vehicle trails and staging areas, developed recreation sites, dispersed campgrounds, special use permits, grazing permits and day use sites during landscape analysis which includes identifying conditions that degrade water quality or habitat for aquatic and riparian-dependant species.
- S2 allows site-specific waivers for livestock exclusions from standing water and saturated soils, wet meadows and associated streams and springs associated with Yosemite Toad habitats. These waivers may have a detrimental effect on riparian habitat and water quality.
- S2 changes the protections for willow fly-catcher habitat, particularly during late season grazing which could increase riparian and water quality impacts.

The preferred alternative proposes full implementation of the Quincy Pilot Project, eliminating restrictions on fuel treatments within California spotted owl habitat and expanding the use of group selection harvesting. EPA objected to full implementation as outlined in our Quincy Pilot Project Draft EIS comment letter (July 26, 1999), which is incorporated by reference. We are especially concerned because the DSEIS does not describe the Region 5 Forest Service commitment to decommission three miles of existing road for each mile of new construction in the Quincy Pilot Project area (December 17, 1999 letter from US Forest Service to Region 9 EPA, attached).

Recommendations:

The Final Supplemental EIS (FSEIS) should include a focused analysis of impacts to water quality, key watershed functions, and aquatic ecosystems that could result from increased fuels treatment activity and associated new and reconstructed roads with Alternative S2. We recommend the FSEIS address the water quality and aquatic effects of roads and the status, management, avoidance and mitigation of impacts, needs and costs of the Forest Service transportation system. We note that the Transportation Rule Sections 7712.1 and 7712.11 (2000 draft) provided strong support for incorporating a transportation analysis into "ecosystem plans" such as the Sierra Nevada Forest Plan Amendment.

The FSEIS should provide a more detailed analysis of the potential impacts associated with the above S&G changes on water quality, aquatic and riparian ecosystem health, and watershed functions and address where potential violations of State water quality standards could occur.

The FSEIS should evaluate and propose road decommissioning targets for the Sierra Nevada similar to the decommissioning ratio commitment (i.e., three miles

of road decommissioning for every new mile of new road construction) made for the Quincy Pilot Project outlined in correspondence between US Forest Service and EPA.

NEPA Issues

1. EPA has been an active participant in the Sierra Nevada Forest Plan Amendment (SNFPA) planning process and supports its long-term goals. Efforts to reach a consensus on how to address fire and fuels with minimal impacts to old forest habitat, old forest dependent species, and aquatic ecosystems while also addressing the needs of local communities of the Sierra Nevada have been ongoing since 1993. The January 2001 SNFPA Record of Decision (ROD) was the culmination of this long public planning process, underwent peer review, and represents a broadly supported consensus agreement. Forest Service Chief Bosworth affirmed the SNFPA ROD in October 2001 and dismissed over 200 appeals.

The DSEIS does not clearly explain the rationale for the approach described in Alternative S2. Although addressing catastrophic wildfires across the landscape is a key objective, the DSEIS does not fully explain why existing guidance (e.g., National Fire Plan, California State Fire Plan, existing standards and guidelines in Modified Alternative 8 (S1)) does not sufficiently address the fire and fuels issue. The DSEIS also states that proposed management actions would likely increase habitat fragmentation, reduce connectivity, and hinder the accretion of old growth (pps. 188-189). The impacts of these management actions appear inconsistent with the underlying SNFPA purpose and need to address fuels, restore old forest habitat, and prevent listings of old forest-dependent species.

Recommendations:

The FSEIS should more clearly describe the rationale for the management direction described in Alternative S2 versus Modified Alternative 8 (S1). We recommend the FSEIS clearly explain: 1) why existing plans and standards and guidelines are not sufficient to meet fire and fuels management requirements, and 2) why the impacts to water quality and sensitive resources are warranted from both a scientific and management perspective. For example, the FSEIS should summarize and reference scientific and management evidence that supports Alternative S2. Specifically, the document should provide a summary of the final recommendations of the Sierra Nevada Science Review; comparative costs of the alternatives, including mitigation costs; and the information that supports the need for increased mechanical treatments to ensure modification of wildfire behavior on a landscape scale. Also, the results of viability analyses for old forest-dependent species should be reported in the FSEIS.

Proposed management changes are based upon recommendations of the SNFPA Management Review and would change the SNFPA ROD and Quincy Pilot Project ROD. To ensure the public and decision makers fully understand the context of the proposed action, we recommend the FSEIS include a summary of the SNFPA Management Review and the Quincy Pilot Project ROD.

2. The DSEIS is also inconsistent in its application of alternative selection criteria and does not analyze alternatives at a comparable level of treatment. For example, the analysis of the second action alternative, S3, is not at the same level of detail as S1, no action (implementation of Modified Alternative 8 SNFPA ROD) or S2, the preferred alternative. Furthermore, the analysis of alternatives F2-F8 is conducted through reference to the FEIS and does not appear to include an updated analysis based on the purpose and need and new information which triggered this review. These procedural problems hinder the document's ability to support a decision under NEPA.

Recommendation:

The FSEIS should include a comparative analysis of all the alternatives, with each alternative analyzed at the same level of detail.

3. Alternatives were discussed during the management review that included implementation of the proposed action with a smaller diameter limit on tree removal and a less stringent limit (versus elimination of restrictions) on group selection treatments in the Quincy Pilot Project area (p. 66, DSEIS). These alternatives are eliminated from detailed analysis because they do not respond to the purpose and need.

Recommendation:

The FSEIS should describe in detail how these alternatives are not responsive to the new purpose and need.

General Comments

1. The SNFPA ROD included a commitment to develop a multi-agency body to collaboratively address and resolve management issues (p. 16, SNFPA ROD). EPA is concerned that this commitment has not been implemented. EPA strongly supports the creation of a federal advisory committee, pursuant to the Federal Advisory Committee Act, and an executive managers committee to help guide the implementation of the SNFPA decision.

Recommendations:

We urge the Forest Service to work with the major stakeholder agencies to reinvigorate the broader Sierra Framework, develop a team to discuss and resolve collaboratively ongoing environmental concerns, and, to the degree possible, develop a collaborative decision-making structure to ensure that various agency priorities are reflected in decisions which affect the broad range of resources in the Sierra Nevada.

We also recommend integration into the proposed alternative, as described and committed to in the January 2001 SNFPA ROD, a public participation component to ensure full public participation and the opportunity to comment on the scope and nature of tiered project-specific actions proposed in the future.

Fujii.Laura@epamail.epa.gov

09/23/2003 11:02 AM

To: snfpa@fs.fed.us, kclement/5@fs.fed.us, kmorse/5@fs.fed.us
cc: Hanf.Lisa@epamail.epa.gov, Suriano.Elaine@epamail.epa.gov
Subject: EPA comments on the Draft Supplemental EIS for Sierra Nevada Forest Plan Amendment - extension to comment due date provided Region 5 US Forest Service

To: Analysis Team, SNFPA SDEIS;
Katherine Clement and Kathleen Morse, Pacific Southwest Region, Forest Service;

Below is Region 9 US EPA comments on the Draft Supplemental EIS for the Sierra Nevada Forest Plan Amendment. Region 5 US Forest Service (Jack Blackwell's Office) granted EPA an extension to the comment deadline date from September 12 to September 19, 2003. Delivery of our comments were delayed due to the shut down of DC by Hurricane Isabel. I am still attempting to fax the letter to Jack Blackwell, Regional Forester, Pacific Southwest Region.

Feel free to give me a call if you have questions regarding our comments.

(See attached file: sierrasdeisfinalltr.wpd)

Laura Fujii
Region 9 EPA
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SN-1492

CALIFORNIA LEGISLATURE

STATE CAPITOL
SACRAMENTO, CALIFORNIA
95814

September 11, 2003

Mr. Jack Blackwell,
Regional Forester, USFS Region 5
c/o USFS Region 4
P.O. Box 221090
Salt Lake City, UT 84122-1090

Subj.: Sierra Nevada Forest Plan Amendment:
Draft Supplemental Environmental Impact Statement

Dear Regional Forester Blackwell:

We are writing to express our grave concerns with the changes that the United States Forest Service has proposed to the Sierra Nevada Forest Plan Amendment, popularly known as the Sierra Nevada Conservation Framework.

This landmark management plan for 11.5 million acres of National Forest lands in the Sierra Nevada and adjacent mountain regions, signed in January 2001, allows logging of small trees where necessary to reduce the risk to lives and property from wildfire, enhances water quality, and protects imperiled wildlife species. Recently, our National Forests in the Sierra Nevada attracted in one year about 86 million visitors, who contribute significantly to the rural economy of that region. Sierra Nevada watersheds provide much of the state's irrigation water and urban drinking water. It is vital to manage these areas in ways that will preserve and enhance recreational benefits and water quality.

The Framework in its current form enjoys broad support from Senators Feinstein and Boxer and many other members of the California Congressional delegation, the Governor, the California Resources Agency, Attorney General Bill Lockyer, scores of local Sierra Nevada businesses, and numerous statewide and regional conservation groups.

We ask that the only changes to the Sierra Nevada Conservation Framework you consider will strengthen wildlife and habitat protections and place a greater emphasis on focusing wildland fuels management in the zone around communities. We also request that you implement the current version of the Framework immediately.

Below are our specific concerns with the changes proposed in the Draft Supplemental Environmental Impact Statement.

- **COMMERCIAL LOGGING AND WILDFIRE RISK REDUCTION.** The existing Framework plan allows logging on the national forests of the Sierra Nevada only as a means for reducing the risk of catastrophic wildfire and restricts logging to selective thinning of smaller trees. Your proposed changes would reopen the door to widespread commercial logging throughout these public lands by sanctioning logging to address so-called "forest health" problems, which ostensibly affect millions of acres of national forest lands. The new plan is projected by the Forest Service to triple the volume of logging compared to the existing plan. The revisions would encourage the logging of medium and large trees when it is clear fire scientists believe most of the fire threat in the Sierra Nevada can be best reduced by treating surface and "ladder" fuels, coupled with thinning of small trees. We urge the Forest Service to follow the Framework thinning plan as the tool for reducing the risk to lives and property from wildfire.

- **OLD GROWTH FORESTS**. The proposal will eliminate critical protection for the Sierra's remaining old growth forests. Under the existing Framework, all old growth stands 1 acre or larger would be off-limits to most logging, and 4.25 million acres of land would be managed as "old forest emphasis areas" to promote old growth values. The Bush Administration proposal would eliminate protection for old growth stands and would allow widespread logging of medium and large trees from within these areas. We urge the Forest Service to maintain existing protection for old growth stands and Old Forest Emphasis Areas.

- **CALIFORNIA SPOTTED OWL.** The California spotted owl is a sensitive species that inhabits old forests in the Sierra Nevada. The Bush Administration proposal would weaken protection for the owl's habitat in numerous respects. For example, the proposal would allow logging of trees up to 30" diameter throughout the Sierra Nevada, would allow tree canopy cover to be substantially reduced, and would allow increased logging within the owl's home range core areas and nest stands. We urge the Forest Service to maintain the Framework's existing protection for California spotted owl habitat, particularly standards that protect medium and large trees, forest canopy cover, owl home range core areas, and protected activity centers.

- **PACIFIC FISHER.** The Pacific fisher is a rare, imperiled furbearing mammal that is closely associated with dense, old forests and that once ranged widely in the Sierra Nevada and the Pacific Northwest. Logging and habitat fragmentation have contributed to the fisher's extirpation from most of its historic range. The isolated fisher population in the southern Sierra is unlikely to survive in the absence of habitat protection and restoration. The proposed logging plan would allow significant degradation of fisher habitat and would remove the Framework's specific protection for the southern Sierra fisher conservation area. We urge the Forest Service to retain and strengthen the Framework's protection for the southern Sierra fisher conservation area.

- **LIVESTOCK GRAZING.** Commercial livestock grazing has numerous adverse environmental impacts, particularly in sensitive areas like meadows, streams, and riparian zones. The Framework requires that grazing be restricted and managed to protect these fragile areas and to reduce adverse effects on imperiled species like the willow flycatcher, Yosemite toad, and mountain yellow-legged frog. The Bush Administration proposal would significantly weaken limitations on grazing, putting these imperiled species at great risk. We urge the Forest Service to retain and strengthen protection for the willow flycatcher, Yosemite toad, and other imperiled species and to maintain protection for meadows and aquatic ecosystems.

- **QUINCY LIBRARY GROUP PLAN.** The Quincy Library Group plan would devastate national forests in the northern Sierra Nevada by allowing tens of thousands of acres of small clearcuts and hundreds of thousands of acres of fuel breaks that will destroy and fragment forest habitat. The Framework limits the large-tree logging in the QLG plan because of its adverse environmental impacts, particularly on the California spotted owl. The Bush Administration proposal would require full implementation of the QLG plan, without regard to its ill effects or the fact that the Forest Service, in a 1999 Environmental Impact Statement and Decision, determined the Quincy plan was too damaging to go forward. We urge the Forest Service to maintain the Framework's restrictions on implementation of the QLG plan.

We agree with the Forest Service that protecting communities from the risk of wildfire should be a leading agency priority. However, fire experts agree that the most effective way to reduce fire risk is to fully fund thinning of smaller trees and brush and prescribed burning efforts in the zone close to communities. Instead, as California Resources Secretary Mary Nichols has stated, your proposed changes "would weaken existing protections by allowing more aggressive cutting of larger trees solely for the purposes of funding fuels management.... If the Forest Service proceeds on its present course without any changes, it's a recipe for a listing of the [California spotted] owl, resulting in renewed conflict, litigation, and gridlock." We urge the Forest Service to immediately and fully fund the necessary wildland fuels management described in the Framework, rather than continue the costly, time-consuming, and contentious process of revising this well-balanced plan.

Please consider this letter an official comment in response to the June 2003 Draft Supplemental Environmental Impact Statement.

Sincerely,

Senator Dede Alpert
39th District

Wilma Chan
Assembly Member, 16th District

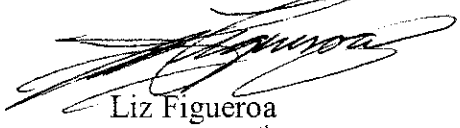
John L. Burton
Senator, 3rd District

Judy Chu
Assembly Member, 49th District

Joe Canciamilla
Assembly Member, 11th District

Ellen M. Corbett
Assembly Member, 18th District

Manny Diaz
Assembly Member, 23rd District



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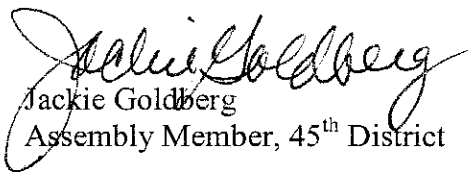
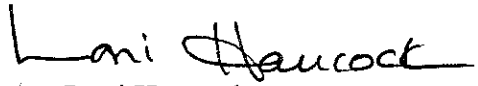


Jackie Goldberg
Assembly Member, 45th District



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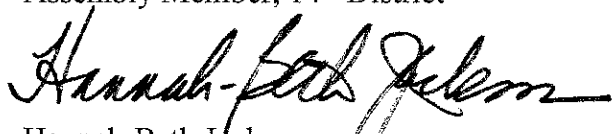

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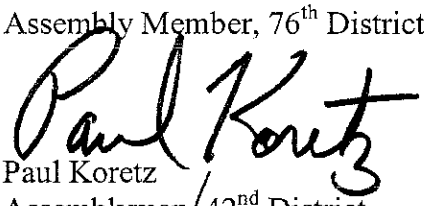

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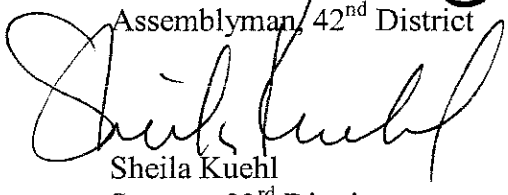

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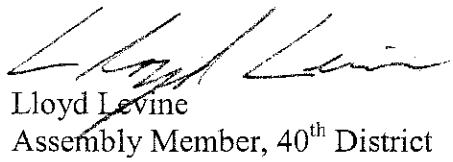

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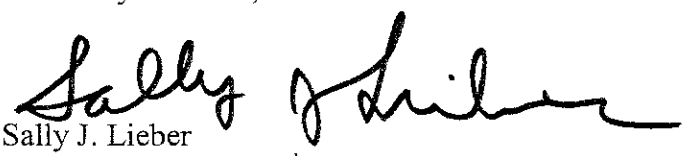

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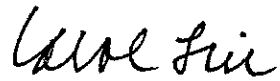

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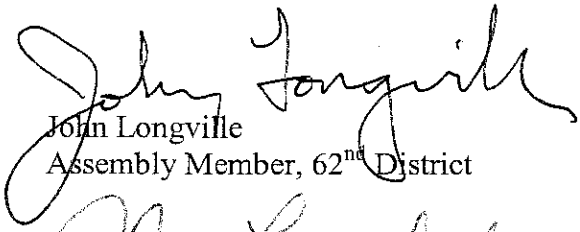

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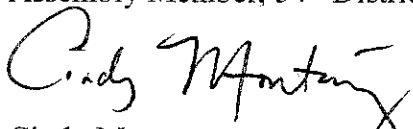

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Leland Y. Yee, Ph.D.
Assembly Member, 12th District

cc: Members of the California Congressional Delegation
The Hon. Ann M. Veneman, Secretary of Agriculture
Mr. Dale N. Bosworth, Chief, U.S. Forest Service

Assembly Committee on
Natural Resources
HANNAH-BETH JACKSON, Chair
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Sacramento, CA 95814

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SN-1947

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer To:
1-1-03-I-2455

SEP 12 2003

Mr. Jack Troyer
Regional Forester, Region 4
United States Department of Agriculture
Forest Service
c/o Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

Mr. Jack Blackwell
Regional Forester, Region 5
United States Department of Agriculture
Forest Service
c/o Sierra Nevada Forest Plan Amendment DSEIS
P.O. Box 221090
Salt Lake City, UT 84122-1090

Subject: Comments on the Sierra Nevada Forest Plan Amendment, Draft Supplemental Environmental Impact Statement, Humboldt-Toiyabe, Modoc, Lassen, Plumas, Tahoe, Eldorado, Stanislaus, Sierra, Inyo, and Sequoia National Forests, and Lake Tahoe Basin Management Unit, California

Dear Mr. Troyer and Mr. Blackwell:

The U. S. Fish and Wildlife Service (Service) has reviewed your Draft Supplemental Environmental Impact Statement for the Sierra Nevada Forest Plan Amendment (SNFPA), dated June 2003. We have reviewed the preferred alternative (Alternative S2) in contrast to continuation of current management direction (Alternative S1) and have gained additional insights from the July 30, 2003, Biological Assessment for the preferred alternative, and from our participation in Interagency and Interdisciplinary Teams involved in planning the project.

We commend the USFS for their outreach efforts with the public, as well as other agencies. We appreciate your inclusion of the Service in the Interagency and Interdisciplinary Teams. We hope we can continue to have early involvement in this type of collaborative approach to USFS projects.

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We have the following comments and recommendations:

Alternative S2 would retain the SNFPA ROD's network of land allocations and their associated desired future conditions (DFCs) (USFS 2003b, pp7); therefore, any mention of land allocations and DFCs in the following discussion refers to those presented in the ROD (USFS 2001).

Watershed Planning and Desired Future Conditions

In modeling exercises performed by the Interdisciplinary Team for the project, Strategically Placed Area Treatments (SPLATS) were placed on three test watersheds to approximate ideal SPLAT patterns within those watersheds (ideal in their effects of reducing fire spread and intensity), but while also avoiding PACs and other areas of dense forested habitat to a large extent. Interdisciplinary team members used aerial photos overlaid with PACs and a theoretical ideal SPLAT pattern, then adjusted the ideal pattern to fit with the topography and current conditions apparent on the aerial photo, and to avoid most PACs. Interdisciplinary team members frequently placed SPLATS within previously harvested areas, brush fields, and naturally sparsely vegetated areas; which served to limit effects on California spotted owl (owl) habitat. Effects of treatments placed in this manner were then used to extrapolate effects across the action area. We believe that this watershed approach to planning is appropriate. However, what seems to be missing from S2 is a commitment to a watershed planning approach to fuels treatments, such as this.

Recommendation: We recommend that SPLAT strategies be planned on a watershed level, as was done in modeling exercises, before any individual treatments are implemented.

We have concerns about projected declines in owl habitat under S2, especially projected declines in preferred nesting habitat within the first 20 years of implementation (USFS 2003b, pp 186). Treatment to the forest-wide standards and guidelines for fuels treatments would increase uncertainty that the amount and quality of habitat available will be enough to provide for viable owl populations. However, if SPLAT patterns are planned on a watershed level, with treatment areas placed to limit their intersections with suitable owl habitat (as was done in modeling exercises for the DSEIS), and treatments are limited such that they do not move treated areas away from desired future conditions for their land allocation; this will serve to minimize impacts to the owl and its habitat.

Recommendation: Alternative S2 includes direction to avoid treatment within PACs to the maximum extent possible. The Forest Service's planning process should take into account avoiding suitable owl habitat in HRCA and OFE's when it does not impact a viable fuels strategy. We also recommend that when mechanical treatments are necessary in PACs, or in suitable habitat within HRCAs, and OFEs; that those treatments be constrained by the Desired Future Conditions (DFCs) for the land allocation they intersect. The DFCs for Spotted Owl PACs and HRCAs are as follows: "Stands in each PAC and home range core area have (1) at least two tree canopy layers, (2) trees in the dominant and co-dominant crown classes averaging at least 24 inches diameter at breast height (dbh), (3) at least 70 percent tree canopy cover

(including hardwoods), (4) a number of very large (greater than 45 inches dbh) old trees, and (5) higher than average levels of snags and down woody material" (USFS 2001, pp 9). The DFCs for OFEs are as follows: "Old forest conditions, as determined by site capability, exist and are maintained on the greatest proportion of acres in old forest emphasis areas as possible. Fuels treatments in old forest emphasis areas allow a natural range of conditions to develop. Old forest emphasis areas provide a network of large, relatively contiguous landscapes distributed throughout the Sierra Nevada where old forest conditions and associate ecological processes predominate. These areas provide a substantial contribution of ecological conditions to maintain viable populations of old forest associated species" (USFS 2001, pp 8).

Strategic Planning, Monitoring, and Adaptive Management

The most recent version of the SNFPA adaptive management and monitoring strategy (USFS 2003a) includes the establishment of 3 levels of teams (Interdisciplinary Team, local USFS Personnel), Forest-level Technical team (local USFS, Service, and possibly other agency staff), and Sierra-level Management Team (USFS, Service, and possibly other agency management staff). In this strategy, thresholds of concern (for example, treatment within PACs, or development of site specific management plans that allow increased grazing in willow flycatcher habitat) would trigger post-project monitoring of certain projects. The Sierra-level Management Team would then review results of project implementation and monitoring and could recommend conservation measures if the team determined that such measures were needed to limit effects of future projects on sensitive species. We commend the USFS' commitment to collection of monitoring data and establishment of teams that will facilitate interagency coordination. However, in order to ensure that conservation goals are being met, we believe that the process needs a stronger feedback loop.

Recommendation: Rather than having a Sierra Management Team that "may recommend" changes, we believe that the process should define conservation goals, and monitor to ensure that desired conditions are being met both on a watershed and cumulative level. If desired conditions and conservation goals are not met, then there must be a mechanism to ensure that appropriate changes are implemented.

In order for monitoring to be effective in detecting change, it is critical that monitoring programs be well defined as to what will be monitored. It is equally critical that baselines be established prior to project implementation and that scientifically defensible data be collected on the parameters being monitored. We stress the importance of these goals, and offer our continued assistance as the USFS develops processes to reach them.

Recommendation: In addition to monitoring those projects that reach thresholds of concern, we also recommend comprehensive implementation monitoring.

We believe that Alternative S2 should include a much stronger commitment to adaptive management and monitoring. In our reading of Chapter 2, it is unclear by what mechanisms "Collection of monitoring information would be coupled with rapid assessment and feedback to

make adjustments in management direction, to ensure continued success in moving toward stated goals, and to help build confidence in protection of key resource values." This uncertainty is exacerbated by the statement "It is unknowable at the bio-regional scale how this direction to avoid treatments within PACs and HRCAs to the extent possible will affect the spotted owl because the extent of treatments will be determined locally." While we understand the desirability of flexibility in management from the local perspective, we are reminded of a quote from Thomas et al (1990), published just before the listing of the northern spotted owl: " We believe that the currrent situation -- the lack of a well-coordinated, biologically based management plan, applied consistently throughout the range of spotted owls -- is unacceptable and contributes to a high risk that spotted owls will be extirpated from significant parts of their range." We urge you to develop consistent guidance for treatment of PACs at the local level, and also to develop reporting and monitoring systems so that the results of locally-driven management can be easily assessed on a bio-regional scale.

Recommendation: Immediately implement organized species monitoring strategies, studies of species response to habitat treatments, and centralized tracking mechanisms regarding extent of treatments in key allocations.

Recommendation: We believe that an interagency strategic planning approach is also needed to ensure that conservation and adaptive management goals are met through planning of fuels treatments. We recommend a process in which representatives of USFS, the Service, and possibly State and local agencies will cooperate in the placement of fuels treatments at a watershed planning level (these tasks could be accomplished by the Forest-level Technical Teams). We expect that some treatments can be implemented with minimal conservation concerns, while others will create significant concerns. When an interagency team identifies a project with significant conservation concerns, the team could recommend alteration of the project to minimize those concerns, and/or plan additional monitoring of or formal adaptive management studies on the project. We believe that this process would result in a streamlined staged implementation of projects. Those projects with the least impacts on sensitive species would be implemented first, while those that create conservation concerns and opportunities to learn would be identified early and modified and/or used to produce meaningful data to help in future planning.

In conclusion, we stress that a viable adaptive management strategy should include four components; planning, implementation, evaluation, and changes to future planning if evaluation indicates that goals are not being met.

Stand Level Analysis

We are concerned that subtle changes in analysis and scale between Alternatives S1 and S2 will have significant effects on old forest habitats used by the owl. Alternative S1 called for identification of all stands (larger than one acre) of CWHR classes 5M (large trees, moderate canopy), 5D (large trees dense canopy), and 6 (multi-layered, dense canopy) and prescribed higher protection to those stands than other CWHR types. Alternative S2 does not require that

these stands be identified or treated differently. Alternative S1 also required that treated areas be analyzed to the stand level (stands are defined subjectively, but would generally be smaller than the area planned for treatment), and that standards and guidelines be assigned based on CWHR type and land allocation. Alternative S2 requires analysis on the treatment unit level, and vegetation parameters (such as basal area and canopy cover) are averaged across the treatment unit. These changes would allow reduction of structural complexity within treated habitats, which reduces certainty that sufficient structural complexity will be retained in California spotted owl habitat. We understand that the USFS has proposed these changes to reduce their costs in analysis and planning, as vegetation analysis to one acre resolution would require significant effort. However, we believe that these changes pose two problems. First, analysis at the treatment unit level could allow stands of potential owl nesting habitat to be removed, reducing habitat available for colonization by dispersing owls. Second, averaging across treatment units could result in individual stands being taken below the S2 standards (ex: if a treatment unit contained two stands of equal size, one at 80% canopy cover and the other at 40%, the treatment unit canopy cover would equal 60%, which could be reduced to 40%, which would likely reduce the stand that started at 40% below 40%, post-treatment).

Recommendation: We recommend that the size of local owl nesting stands be determined, and that all stands of 5M, 5D, and 6 large enough to serve as nest stands be protected. As a hypothetical example, if the minimum size of nest stands on the Sierra National Forest were found to be 10 acres, then the planning of fuels treatments for that forest would include identification of all 10 acre or larger stands of CWHR types 5M, 5D, and 6, and avoidance where possible and minimum fuels treatment when necessary within those stands. We believe that this compromise will reduce the removal of potential nesting stands and the negative effects of averaging across treatment units.

Status and Viability of California Spotted Owl

In Chapter 4, discussion of Alternative F-2 is used to consider effects of Alternative S3. After referring to the new information on California spotted owls, the final sentence of the section states "Based on this new information, this viability rating would be higher." That statement is undocumented and unjustified. To our knowledge, no viability analysis has been conducted for any of the three alternatives being considered by the SEIS. We agree with Section 3.2.2.3, which states that "A great deal of uncertainty regarding range-wide population trends still resides in the meta-analysis." However, unlike the FEIS, the SEIS states no explicit assumptions regarding status of the CSO (or other species) and the relevance of that status in the consideration of the decision at hand.

Recommendation: Continue to involve the scientific community in evaluation of the relative risks of the various alternatives. Avoid engendering the perception that owl viability is known or substantially improved. In the decision document, explicitly address assumptions regarding owl status, as well as the balancing of risks and benefits of the alternatives.

Fisher Conservation Strategy

Fishers within the planning area use habitat similar to that used by California spotted owls. In the western US, fisher denning and resting sites are old forest stands with large trees and snags, course woody debris and other complex structure, high canopy closure, and multi-layered vegetation (68 FR 41169). Fishers require forested habitat with at least 40% canopy cover for foraging and travel, and the mean canopy cover of denning and resting sites exceeds 90% in the southern Sierra Nevada (Campbell et al 2000).

Under Alternative S1, the fisher would have benefited from the same habitat protections that comprise the owl conservation strategy, as designation and protection of PACs, HRCAs, and OFEs would have helped to maintain or improve habitat and habitat connectivity for both species. In addition, there was a watershed level requirement to retain 60% of each watershed in habitat dominated by trees 11 inches dbh or larger and canopy cover at or exceeding 60% within the Southern Sierra Fisher Conservation Area (a land allocation encompassing most occupied fisher habitat on the Sierra and Sequoia National Forests). Under S2, standards and guidelines for vegetation treatments have been altered as discussed above, which creates greater uncertainty that sufficient habitat for the fisher will be available in the future. In addition, the watershed level requirement for the Southern Sierra Fisher Conservation Area has been deleted in S2. This creates greater uncertainty that sufficient habitat and habitat connectivity will be retained for the southern Sierra fisher population.

Recommendation: To help retain and improve fisher habitat, we recommend constraining treatments such that they do not move treated areas away from desired future conditions for their land allocation, as discussed above. We recommend some mechanism to maintain adequate canopy closure for the fisher over each watershed to the maximum extent possible while meeting fuels reduction needs. We also recommend that fuels treatments within the Southern Sierra Fisher Conservation Area be planned at the watershed level to avoid areas of dense habitat (60%+ canopy closure) wherever possible and to ensure connectivity by maintaining a continuous distribution of denning/resting and travel/foraging habitat. We also recommend avoidance of treatment within any patches of habitat with 90%+ canopy closure to the maximum extent possible while meeting fuels reduction needs. In addition, we recommend that an overall conservation strategy be developed for the fisher. We would be willing to assist you in development of this strategy.

Yosemite Toad Standards and Guidelines

Yosemite toads use meadow habitats of the high Sierra Nevada. Breeding habitat includes the edges of wet meadows and slow flowing streams (Jennings and Hayes 1994). Livestock have negative effects on Yosemite toad habitat and have been documented to cause direct mortality of the species (67 FR 75834). S1 required exclusion of livestock from standing water and saturated soils in occupied habitat during the Yosemite toad breeding and rearing season. S2 allows that exclusion to be waived if a site specific management plan is developed. Such plans would "include a rigorous monitoring component" (USFS 2003b, pp 56).

Recommendation: We recommend that site specific management plans only be implemented in association with formal adaptive management studies capable of detecting livestock effects on toad populations. If this creates an impractical workload, we recommend that a stratified sample of formal studies capable of detecting livestock effects on toad populations be implemented across the range of the species. We also recommend modification of livestock grazing if monitoring data or formal studies indicate that the goals of maintaining viable Yosemite toad populations and protecting habitat for the species are not being met.

Under S1, "rearing season" was undefined, and could have been interpreted to end when tadpoles transform, or when metamorph toads leave their natal habitat. Under S2, rearing season is strictly defined to end when tadpoles transform, which leaves metamorphs vulnerable to trampling.

Recommendation: We recommend that the period when livestock are excluded from breeding habitat be extended, so as to protect metamorph Yosemite toads.

Under S1, unsurveyed habitat would have been presumed occupied after January 2004 and protection from livestock applied, as discussed above. Under S2, this standard is dropped.

Recommendation: We recommend that surveys be completed by January 2007, and that if any habitat remains unsurveyed thereafter, it be assumed occupied.

Willow Flycatcher Standards and Guidelines

The species has declined significantly in the Sierra Nevada, with a 39% decline in occupied sites and 13-23% demographic estimates of annual population decline (Green et al 2003). Livestock can impact the species by bumping nests, browsing on and trampling shrubs (nesting habitat), causing erosion which may impact prey species, and by facilitating brown-headed cowbirds (a nest parasite).

Under S1, historic sites found occupied were excluded from grazing, and historic sites currently unoccupied or newly discovered occupied sites could only be grazed after the breeding season (after August 30). Under S2, all sites may be grazed after August 15th, which exposes 10% or more of nests to grazing impacts (USFS 2003b). Late season grazing may also increase impacts to habitat by encouraging livestock to concentrate in moist areas and to browse on shrubs.

Under S2, site specific management plans can also be developed to allow season-long grazing, which could increase direct and indirect impacts on the species.

Recommendation: We recommend that site specific management plans only be implemented if and where nests and nesting habitat can be effectively protected. We also recommend monitoring of all occupied sites that are grazed, and modification of livestock grazing if the goals of: 1) maintaining the current willow flycatcher population, 2) allowing for its expansion over

time, and 3) providing habitat conditions that allow for maintaining and increasing habitat to support viable populations of flycatchers (USFS 2001), are not being met.

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S2 provides for implementation of the HFQLG Act pilot project as specified in the HFQLG ROD with two exceptions: 1) the mitigation measure to avoid activities in suitable habitat would be dropped; and 2) defensible fuel profile zones (DFPZ) construction would be allowed in LSOGs 4 and 5 with direction to avoid altering old forest patches within this land allocation. The HFQLG Act retains the deferring of Offbase and Deferred Areas, PACs and SOHAs, from resource management activities and timber harvesting. Within the HFQLG area, Alternative S2 has been projected to result in a 7 percent decline in nesting habitat and an 8.5 percent decline in suitable foraging habitat by 2007. We believe these changes in S2 create greater uncertainty that sufficient habitat will be retained for the California spotted owl.

Recommendation: 1) In HFQLG treatment areas, implement monitoring and adaptive management strategies as recommended previously in this document, consistent with our recommendations for other areas managed under the SNFPA.

Analysis of Alternative S3

It does not appear that Alternative S3 is given fair treatment in the comparison of alternatives in Chapter 2 and Chapter 4. It is not appropriate to use Alternative F2 as a surrogate for S3 in the prediction of outcomes related to fuels treatments, because under S3, treatments equivalents to S2 would be implemented in the Defense Zone for at least the first 5 years, and potentially throughout the life of the plan. Thus, the risk of catastrophic fire to communities would be substantially less under S3 than under S1, and to the extent that ignitions in the WUI might affect old forest habitats, the effects on old forest should be reduced as well. Use of F2 as a surrogate also may yield biased results in other summary tables in Chapter 2.

Overall, the adoption of F2 as a surrogate for S3, and the consequent predicted outcomes of S3 in comparative tables, seems based on the unstated assumption that the result of treatments as documented by the adaptive management studies would preclude much of the implementation of the preferred alternative after the first five years. In fact, if the adaptive management studies found that the fuels treatments were having severe effects, it would be entirely appropriate for implementation to be suspended for re-consideration. In the long run, this outcome might actually be advantageous, if a course adjustment were accomplished early enough to avoid a listing under the Endangered Species Act.

The very limited discussion of S3, combined with the negative portrayal of S3 in the comparison tables in Chapter 2, fails to provide the decision maker or the public with a balanced view of the advantages of adaptive management studies. We believe it is quite possible that such studies would provide the basis for improved fuels treatments that could accomplish multiple objectives

in the Threat Zone and in other allocations, and provide the documentation that would help provide insulation from legal challenge.

Recommendation: Conduct a more explicit and thoughtful analysis of S3. Make it clear that if a highly restrictive outcome such as F2 results, it would only be because that outcome is justified by the emerging understanding of negative effects of fuels treatments on Sierra fauna, in which case consideration of a course correction would be entirely appropriate. Consider that the outcome of adaptive management studies may well be to improve the focus and effectiveness of fuels treatments for all resources. In addition to correcting the prediction of outcomes in the Defense Zone, recognize that the studies may well lead to some higher level of treatment in portions of the Threat Zone and in other allocations than under S1. Most importantly, adopt some form of adaptive management studies for the California spotted owl, the fisher, and other sensitive wildlife in the preferred alternative.

The Service appreciates the opportunity to comment on the DSEIS. We also thank the USFS for the opportunity to participate in the Interagency and Interdisciplinary Teams for the project. If you have any questions regarding these comments please contact Jacob Martin or Cay C. Goude at (916) 414-6600.

Sincerely,

Cay C. Goude

Wayne White
Field Supervisor

cc:
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California Department of Fish and Game, Sacramento, California (Attention: Larry Eng)
State of California, Resources Agency, Sacramento, California (Attention: Greg Greenwood)

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RE: Sierra Nevada Forest Plan Amendment -- Draft Supplemental Environmental Impact Statement

Dear Chief Bosworth and Mr. Blackwell:

I am writing once again to express my opposition to the changes the Forest Service is proposing to the Sierra Nevada Conservation Framework. The Framework was developed over several years, with rigorous scientific input and extensive public comment. The plan strikes a balance between protection of sensitive forest resources, and active forest management to reduce the risk of severe wildfire on the other.

I am deeply disappointed that the new plan has been rushed to completion, is based on questionable science and computer projections, and emphasizes timber cutting over hazardous fuel reduction. Moreover, the new plan abandons the flexible, location-based hazardous fuel reduction directives aimed at reducing hazardous fuels found in the Framework. The new plan shifts much of the emphasis from the removal of surface and ladder fuels to the removal of large trees. Even worse, the new plan could very well compromise the viability of the California spotted owl and precipitate a listing under the Endangered Species Act.

Under the original Framework, as much as 319,000 acres of land in the community defense zone was available for treatment to prevent wildfires under standards that were more relaxed than those the Forest Service has been operating under in the Sierra for years. This land base would have provided approximately 5 to10 years of non-controversial fuels treatment that had strong public support. In addition to the problems outlined above, the new plan will intensify conflicts over forest management in the Sierra Nevada.

While I have many concerns about the new plan, I am particularly concerned about its provisions that affect old growth forests and the California spotted owl.

Old Growth Forests. The proposed plan eliminates the distinction between Old Forest Emphasis Areas and General Forest. Under the existing Framework, all old growth stands one acre or larger would be off-limits to most logging, and 4.25 million acres of land would be managed as Old Forest Emphasis Areas to promote the characteristics and values of old growth trees. The Forest Service claims the new plan maintains the current land allocations. I was disturbed to learn that, to the contrary, under the new plan, lands zoned as Old Forest Emphasis Areas would be open to logging of medium and large trees.

California Spotted Owl. The California spotted owl is a sensitive species that inhabits old forests in the Sierra Nevada. The proposed changes to the Framework would substantially weaken protection for the owl's habitat. For example, the proposal would allow logging of trees up to 30" diameter throughout the Sierra Nevada, substantial reduction of canopy cover, and increased logging within core areas and nest stands of the owl's home range.

In its decision not to list this species under the Endangered Species Act, the U.S. Fish and Wildlife Service specifically referenced the existence of the Sierra Nevada Conservation Framework as an adequate regulatory measure to protect the owl and its habitat. The new plan fails to meet the same standard of protection because it will disrupt habitat and make it unsuitable.

Reducing the risk of fire and protecting communities should be an agency priority. Rather than pursuing this important work, the Forest Service has chosen to dismantle the Framework. Once again, I strongly urge the Forest Service to support the Sierra Nevada Framework and begin implementation of fuel reduction activities under the existing plan. I also strongly urge the Forest Service to maintain existing protection for California spotted owl habitat, particularly standards that protect medium and large trees, forest canopy cover, and owl habitat.

Sincerely,

Barbara Boxer
United States Senator

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