



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 7, 2006

Ray Porter, District Ranger
High Sierra Ranger District
P.O. Box 559
Prather, CA 93651

Subject: Draft Environmental Impact Statement for Kings River Project, Fresno
County, California (CEQ# 20060027)

Dear Mr. Porter,

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the above project. Our review and comments are 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. Thank you for the EPA-specific extension to the comment period for this DEIS (communication between Laura Fujii and Ross Peckinpah, Kings River Project Coordinator, March 29, 2006).

Based on our review, we have rated the proposed Phase 1 of the Kings River Project as Environmental Concerns – Insufficient Information (EC-2). A *Summary of EPA Rating Definitions* is enclosed. EPA supports forest research and restoration of Sierra Nevada forests to conditions that are sustainable and resilient. However, the DEIS does not evaluate a reasonable range of alternatives, or provide sufficient information to support the project design and proposed variances from the existing 2004 Sierra Nevada Forest Plan Amendment (2004 SNFPA) standards and guidelines. The proposed variances would implement a more intensive level of logging than is currently allowed. As a result, the project increases the risk of adverse impacts to aquatic and late successional forest species, including a trend towards federal listing or loss of population viability for the Federal candidate Yosemite toad. The proposed variances are also of significant concern because of EPA's previous comments on the 2004 SNFPA Supplemental EIS (September 23, 2003 and March 15, 2004).

We appreciate the opportunity to review this DEIS. We are available to discuss our comments. When the FEIS is released for public review, please send one copy to the above address (mail code: CED-2). If you have any questions, please call me at 415-972-3988 or Laura Fujii, of my staff, at 415-972-3852 or fujii.laura@epa.gov.

Sincerely,
/s/

Duane James, Manager
Environmental Review Office
Communities and Ecosystems Division

Enclosures:
Summary of EPA Rating Definitions
Detailed Comments

cc: Dave Harlow, US Fish and Wildlife Service

**EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE KINGS RIVER PROJECT, APRIL 7, 2006.**

Project Description

The Kings River Project implements an uneven-aged silvicultural system in 7 phases over 131,500 acres from 2004 to 2033 in order to restore historic pre-1850 forest conditions and provide opportunities for research. This Draft Environmental Impact Statement (DEIS) evaluates Phase 1 that would treat 8 management units on 13,700 acres from 2004 to 2008.

Analysis of Alternatives

Expand the range of alternatives evaluated in detail. The DEIS evaluates the Proposed Action and No Action alternatives. Although three other action alternatives were developed, they were eliminated from detailed study because they did not meet the specific research criteria.

Recommendation:

The Final EIS (FEIS) should evaluate an expanded range of alternatives. New or modified alternatives could include different research designs or locations, forest treatment activities, and temporal and spatial distribution of activities.

Provide data to support the project design. The Kings River Project would implement experimental uneven-aged silvicultural system treatments defined by a final tree distribution regime that conforms to an inverse J-curve (p. 18). It also would implement the Kings River Experimental Watersheds Study, California Spotted Owl Study, and monitoring of Pacific fisher populations and air quality.

The Proposed Action proposes variances that exceed the existing 2004 Sierra Nevada Forest Plan Amendment (2004 SNFPA) standards and guidelines. We recognize that the SNFPA allows variances from the standards and guidelines for adaptive management research projects such as the Kings River Project. However, the need for these variances--especially given the potential for significant adverse impacts--should be supported by previous research results and a description of the scientific basis for the research design. The lack of this information is of concern because the desire to meet the specific research and management design criteria appears to be driving the decision to modify or not implement 2004 SNFPA standards and guidelines formulated to protect and avoid adverse impacts (p. 51-53).

Recommendations:

FEIS should provide information that supports the project design and proposed variances from 2004 SNFPA standards and guidelines. This information should include the results of previous research in the Kings River Project area and a description of the scientific basis for the proposed research and project design.

For example, explain the scientific basis for the J-curve objective. Discuss the rationale for the project design and how it would achieve the goal of restoring historic pre-1850 forest conditions. We note that previous uneven-aged

silvicultural system treatments in the project area have led to many openings of 0.7 to 1.25 acres which does not appear to match the described hypothetical historic condition of many openings of 0.19 acres (Figure 12, p. 147).

Reconsider the Reduction of Harvest Tree Size alternative. The DEIS eliminates the Reduction of Harvest Tree Size alternative because trees 30-35" diameter-at-breast-height (dbh) are not scarce, and therefore, trees up to 35" dbh must be logged to ensure enough acres are treated to adequately test the uneven-aged silvicultural system (pps. 58-59). However, other data in the DEIS states that few trees of 25-35" dbh will be logged (Figure 11, p. 146) which appears to be inconsistent with the above rationale for removal of trees up to 35" dbh.

Recommendations:

Given the potential adverse impacts to late successional forest species, we recommend reconsideration of a reduced harvest tree size alternative. The FEIS should also provide more specific and consistent data on the relative abundance and distribution of trees of 25" to 35" dbh.

Provide specific information on the adaptive management program. Adaptive management, monitoring, and results of initial treatments will be used to provide direction for later phases of the Kings River Project (p. 17). These later phases will treat 60 management units on 117,800 acres from 2011 to 2033.

Recommendation:

The FEIS should provide specific information on the adaptive management process, monitoring, and commitments. Clearly describe the process for integrating forest treatment results into design development and decisions for the later phases of the Kings River Project.

Transportation System

Evaluate and avoid potential impacts of new roads, road reconstruction, road maintenance, and landings. The DEIS does not provide sufficient information to determine the potential impacts (i.e., increased sediment loads, in-stream habitat modifications, increased run-off) on streams and watersheds from new roads, road reconstruction, road maintenance, and landings. Phase 1 of the Kings River Project includes 1.7 miles of new road, reconstruction of 84.7 miles of road, and 190.7 miles of road maintenance (p. 174). Roads are a major cause of water quality problems and adverse impacts to aquatic ecosystems in the Sierra Nevada.¹

Roads are also a major source of watershed disturbance and sediment that result in adverse cumulative watershed effects. The Cumulative Watershed Effects (CWE) assessment for the first phase of the Kings River Project concludes that a CWE response is probable in one sub-watershed, potential in 6 sub-watersheds, and unlikely in three sub-watersheds that are over their lower limit Threshold of Concern for the level of

¹ Sierra Nevada Ecosystem Project, 1996 and Sierra Nevada Science Review, 1998.

disturbance that a watershed can tolerate without incurring a cumulative watershed effect response (p. 180).

Recommendations:

The FEIS should evaluate, in detail, the potential for new roads, road reconstruction, road maintenance, and landings to increase sediment loads, modify in-stream habitat, and increase run-off. Provide information on road density and identified road-related erosion and sedimentation problems.

Identified impacts should be avoided or minimized through modification of project design and implementation of mitigation measures. Roads that are no longer necessary or are associated with significant resource degradation should be considered for closure or decommissioning.

Air Quality

Include the air conformity determination in the FEIS. The DEIS cites the Kings River Project air conformity determination, but does not include a copy of the document in the DEIS (pps. 36, 117). Nor does the DEIS describe San Joaquin Valley Air Pollution Control District (SJVAPCD) or California regulations regarding prescribed burning and smoke management. A commitment to limit the number of acres underburned is important given the non-attainment status of the San Joaquin Valley airshed for ozone and particulate matter less than or equal to 10 micrometers (PM₁₀).

Recommendation:

The FEIS should include the air conformity determination as an appendix. The FEIS should also describe the SJVAPCD and California regulations for prescribed burning and smoke management. We recommend a clear commitment to limit the number of acres burned per year to ensure emissions remain within the California State Implementation Plan emission restrictions (p. 79).

Cumulative Impacts Analysis

Conduct a more robust and specific cumulative impacts analysis. Past, present, and reasonably foreseeable activities in the Kings River Project are limited to those that occurred in the past 30 years and within the next 30 years (p. 67). It is evident from information provided in the DEIS that there has been, and, will be, a significant level of forest management activity in the project area. This activity includes future phases of the Kings River Project, the existing prescribed burning program, maintenance of existing forest plantations, and management activities on private property adjacent to Federal forest lands (pps. 67-70).

The cumulative impact analysis provides general statements regarding impacts. Potential measures to avoid and minimize these cumulative impacts are not discussed in detail. For instance, the analysis concludes there would be no cumulative impacts to the Pacific fisher because treatments in adjacent management units would not occur within a five year period and that other activities have not occurred in the management units to be treated (pps. 196-197). However, the DEIS does not provide information on why the five

year period is protective. Nor does the DEIS evaluate whether other activities across the landscape, outside the initial management units, would cause cumulative impacts to the Pacific fisher.

Recommendations:

The FEIS should include a more robust and specific cumulative impacts analysis. This analysis should provide the rationale for the temporal and spatial boundaries utilized in the analysis, provide specific information on potential impacts to specific resources, and discuss potential avoidance measures.

The analysis should describe the environmental and health impacts of potential cumulative impacts. For instance, discuss in detail the environmental and health impacts of projected air emissions from the existing underburn program and the harvest/prescribed burning of the remaining 60 management units (p. 80). We recommend describing potential mitigation measures for cumulative impacts if they would result in significant impacts to human health or the environment.

Sensitive Species

Describe the status of Section 7 Endangered Species Act consultation. The Proposed Action would have potential adverse impacts to sensitive species such as the Yosemite toad (p. 92), Pacific fisher (p. 152), California spotted owl (p. 186), and Relictual slender salamander (p. 89).

Recommendation:

The FEIS should describe the status of Section 7 Endangered Species Act consultation with the U.S. Fish and Wildlife Service (FWS). If available, include the FWS Biological Opinion in the FEIS and a description of reasonable and prudent measures and alternatives, if any, requested by the FWS. We also recommend the FEIS include as appendices, the summary and conclusions of the Forest Service's Threatened, Endangered, or Forest Service sensitive species Biological Assessment/Biological Evaluation (BA/BE), Aquatic species BA/BE, and the High Sierra Ranger District Wildlife Biologist's Report on Management Indicator Species.

Evaluate project design modifications to avoid and minimize impacts to sensitive species. The Proposed Action modifies, or does not implement, sensitive species standards and guidelines of the 2004 SNFPA and Sierra National Forest Land and Resource Management Plan because of conflicts with the specific research objectives (p. 37). For instance, the project would allow work during limited operating periods developed to protect sensitive species (p. 51) and within 100 feet of Yosemite toad occupied meadows (p. v). General protection measures for resident trout species areas were also dropped based upon the assumption that Streamside Management Zones (SMZs) are sufficiently protective (p. 37).

These modifications of sensitive species standards and guidelines increase the risk of adverse impacts such as the acknowledged potential trend toward federal listing and loss of viability of a unique population of Yosemite toad (p. iv – v). Of concern is the population of Yosemite toad in the Bull Creek and Teakettle watershed which appear to be isolated from other populations.² The DEIS states that the adverse effect to Yosemite toad could be reduced by implementing a 500 foot no mechanical activity zone on occupied meadows instead of the currently proposed 100 foot zone (p. v).

Recommendations:

We recommend evaluation of project design modifications to avoid and minimize impacts to sensitive species. For instance, describe specific research and management design measures and assess the ability to modify these measures to avoid adverse impacts.

The FEIS should evaluate the ability to relocate treatments, or implement the 500 foot no mechanical activity zone, for meadows occupied by Yosemite toad to avoid adverse irreversible impacts to this species.

The FEIS should include a detailed description of research and management objectives. The FEIS should demonstrate that these objectives and goals cannot be achieved in any other less damaging manner.

FEIS should provide data and other scientific references to support the assumption that existing SMZs are as protective as general protection measures for trout (p. 37).

Demonstrate that proposed design measures will prevent loss of population viability of late successional forest species. The Proposed Action would implement measures to minimize adverse effects on late successional forest species such as the Pacific fisher and California spotted owl. For example, there would be limits on the portion of Pacific fisher home range available for treatment (less than one third), and the amount of California spotted owl protected activity centers (PACs) available for manipulation in the California Spotted Owl Study (p. 135). We note that the Proposed Action appears to delay achievement of the Pacific fisher canopy goal of 50% of the landscape in California Wildlife Habitat Relationship size 4 or 5 (pps. 143; Figure 14, p. 152; pps. 160, 193, 194).

Recommendations:

The FEIS should clearly demonstrate that the proposed project design measures will avoid loss of population viability of late successional forest species.

The FEIS should provide a description and discussion of current knowledge and science on Pacific fisher and California spotted owl requirements. Provide information, data, and references that demonstrate that project design measures,

² Figure 8c, Aquatic Species Biological Assessment & Biological Evaluation, Holly Sanders, Aquatic/Fisheries Biologist, High Sierra Ranger District, Sierra National Forest, 1/27/06.

such as limits on treatments in PACs, tree removal intensity, and tree size removed, are reasonably able to protect the species and prevent loss of population viability.

The FEIS should also describe how the proposed treatment design was determined and why it is considered protective of late successional forest species. For instance, describe the scientific basis for determining that treatment of one third of a fisher's home range would not have an adverse effect on fisher populations (p. 197).

Provide additional information on potential impacts to the Relictual slender salamander. Cumulative impacts to the Relictual slender salamander may lead to listing and population losses due to the extent of the Kings River Project over time and the overlap in project activity areas. The DEIS states it is hard to determine locations of this species and, therefore, difficult to provide adequate protection (p. 89).

Recommendation:

We recommend the FEIS include additional information on the work being done to learn more about slender salamander species on Sierra National Forest (p. 90). This information should include a summary of the research underway to determine the species of slender salamander, and whether the research will help determine the vulnerability of the species to Kings River Project activities.