

US EPA ARCHIVE DOCUMENT



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

March 21, 2006

Jane LaBoa
District Ranger
Amador District
Eldorado National Forest
26820 Silver Drive
Pioneer, CA 95666

Subject: Draft Environmental Impact Statement for Kirkwood Mountain Resort--
Mountain Master Development Plan, Amador, Alpine, and El Dorado
Counties, California (CEQ# 20060015)

Dear Ms. LaBoa,

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the above document. 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.

Based on our review, we have rated the proposed Mountain Master Development Plan and DEIS as Environmental Concerns – Insufficient Information (EC-2). A *Summary of EPA Rating Definitions* is enclosed. Kirkwood Mountain Resort (Kirkwood) operates in accordance with the terms and conditions of a Special Use Permit issued by the Forest Service. The Forest Service and Kirkwood cooperatively developed the Mountain Master Development Plan to provide strategic planning for the Special Use Permit area. EPA supports strategic planning for Kirkwood development. However, we have concerns with the purpose and need for the proposed ski infrastructure expansion and the limited integration of the 2003 Kirkwood Specific Plan (Specific Plan) into this environmental analysis. The Specific Plan approves development within the private portion of Kirkwood that will contribute to direct, indirect, and cumulative impacts in the project area.

We also have concerns with the potential adverse effects to cumulative watershed effects, water resources, air quality, traffic, and noise. We recommend consideration of Alternative 3—Limited Emigrant Valley Development, as the preferred alternative, because it minimizes cumulative watershed effects, avoids additional impacts to the

Federally-listed Mountain yellow-legged frog, and minimizes impacts to the historic Carson Emigrant Trail. Our Detailed Comments are enclosed.

We appreciate the opportunity to review this DEIS. Please send two copies of the Final EIS to the above address (mail code: CED-2) when it is released for public review. If you have any questions, please call me at 415-972-3988 or Laura Fujii, of my staff, at 415-972-3852, or at 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: Les Grober, Central Valley Regional Water Quality Control Board
Dave Harlow, US Fish and Wildlife Service
Susan Grijalva, Amador County Planning Department
Brian Peters, Alpine County Planning Department
Peter Maurer, El Dorado County Planning Department
Steve Knight, President, California-Nevada Chapter, Oregon-California Trails Association

EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE KIRKWOOD RESORT 2003 MOUNTAIN MASTER DEVELOPMENT PLAN, MARCH 21, 2006.

Give the Reasons for the Purpose and Need

The purpose and need for the proposed action is to provide strategic planning for Kirkwood Mountain Resort's Special Use Permit area, balance resort infrastructure with current and future use levels, and improve public safety and recreational opportunities (p. ES-1). The Draft Environmental Impact Statement (DEIS) does not conclusively demonstrate how the proposed expansion of on-mountain ski trails, chairlifts, guest services and additional snowmaking meet the above purpose and need.

For example, data are not provided that illustrate the need for the expanded infrastructure, nor how proposed actions address use levels and safety needs. We note that the proposed expansion would increase the Comfortable Carrying Capacity of the resort by 44%. Of specific concern are new developments proposed in Emigrant Valley that will contribute to cumulative watershed effects and may adversely affect sensitive resources such as the Mountain yellow-legged frog and the historic Carson Emigrant Trail.

Recommendations:

The Final EIS (FEIS) should provide specific examples, resort use data, safety requirements, and industry references to demonstrate the need for the proposed expansion. For instance, include information on existing trail use, percentage of terrain for different skier abilities, current use of hiked-into terrain, demand for access to additional terrain, and safety issues. We recommend the FEIS include an evaluation of the additional snowmaking, on-mountain evening dining, and early-season groomed Nordic trails, and explain the need for these facilities to ensure the continued viability of Kirkwood Mountain Resort.

We recommend the FEIS include a cost comparison of the action alternatives. Describe in the FEIS the implementation priority for the chairlifts, terrain modifications, snowmaking infrastructure, Caples Crest Restaurant, paragliding launch sites, Nordic Trail changes, and other on-mountain infrastructure.

Consider Alternative 3 as the Preferred Alternative

The DEIS evaluates two action alternatives: Alternative 2 - The Proposed Action and Alternative 3 - Limited Emigrant Valley Development. Alternative 2 proposes two new lifts and increased use in the Emigrant Valley. The Emigrant Valley is on the boundary of the Mokelumne Wilderness and includes the historic Carson Emigrant Trail and habitat for the federally-listed Mountain yellow-legged frog. In addition, the natural sensitivity index for the Kirkwood Creek watershed, which includes the proposed project area, is very high (p. 3-164). This sensitive watershed is already approaching the threshold of concern for cumulative watershed effects (Table 3H-16, p. 3-166).

Recommendation:

We recommend consideration of Alternative 3 as the preferred alternative. This alternative would minimize additional cumulative watershed effects in a watershed which is already close to the threshold of concern, avoid impacts to Mountain yellow-legged frog caused by the expansion of recreation into known habitat, and minimize impacts on the historic Carson Emigrant Trail from new infrastructure next to and within the view-shed of the trail.

Integrate the 2003 Kirkwood Specific Plan into this Environmental Analysis

Amador and Alpine Counties have approved and adopted the 2003 Kirkwood Specific Plan (Specific Plan) and its Environmental Impact Report (EIR), which provide for new community infrastructure, housing, commercial services and recreational opportunities on the private land portion of the Kirkwood Mountain Resort (p. 1-8). While the DEIS on the Mountain Master Development Plan (MMDP) references and adopts the environmental analysis and conclusions of the EIR; it does not provide a detailed description of the EIR data and analyses, nor fully integrate these analyses into the analysis for the MMDP. For example, the DEIS concludes that there will be no cumulative impacts to waters of the United States, referencing the EIR. However, the EIR wetland and cumulative effects analyses are not summarized or otherwise provided (p. 3-185).

Recommendations:

The FEIS should provide an independent evaluation of the environmental consequences of the MMDP. While it is appropriate to utilize and reference the environmental analyses and conclusions of the EIR for the Specific Plan, the applicability of these analyses and conclusions to the MMDP actions should be evaluated and confirmed in the FEIS.

The cumulative effects analysis of the EIR should be provided in an appendix in the FEIS. Since the Forest Service appears to adopt the EIR analysis and cumulative effects conclusions, the FEIS should describe and evaluate the EIR information and determine the appropriateness of adopting the EIR conclusions for the MMDP.

The FEIS should provide a summary of the decisions and actions approved in the Specific Plan and its EIR. This summary should include the proposed actions; the direct, indirect, and cumulative environmental effects of these actions; and mitigation and monitoring commitments. For instance, describe the referenced measures to prevent haphazard development on private lands (p. 3-62) and to monitor and respond to recreational patterns and demands (p. 3-126). We recommend including the Executive Summaries of the Specific Plan and EIR in an appendix in the FEIS.

Water Resources

Avoid and minimize additional Cumulative Watershed Effects. The Kirkwood Creek watershed is very vulnerable to soil disturbance as signified by its high Natural Sensitivity Index of 87 and low cumulative watershed effects threshold of concern (TOC) of 10 to 12% (p. 3-164). As of 2005, the watershed is approaching 87% of the TOC and will exceed the TOC even under the No Action Alternative (Table 3H-16, p. 3-166). Field review of Kirkwood Creek also revealed that even at the 87% TOC, there is a sufficient level of impact to the channel that the creek was judged to be unsuitable as an indicator of reference conditions (p. 3-167).

While we recognize the commitment to helicopter and over-the-snow construction which will reduce soil disturbance effects, the MMDP includes additional construction and soil disturbance in this sensitive watershed. Of specific concern is the construction of the temporary Thimble Peak Chairlift access road in an area noted as a challenge for re-vegetation (p. 2-24).

Recommendations:

We recommend avoiding additional soil disturbance by eliminating and minimizing new construction. For instance, consider providing fewer square feet for the Caples Crest Restaurant and fewer new or expanded on-mountain guest services in Alternatives 2 and 3. We also recommend consideration of Alternative 3 which would eliminate new construction in the Emigrant Valley.

The FEIS should also describe actions being taken by Kirkwood Mountain Resort to avoid and minimize the adverse effects of the construction proposed in their 2003 Specific Plan.

Expand the evaluation of impacts to waters of the United States. The description and evaluation of impacts to waters of the United States (Chapter 3J) is unclear due to unspecified measurement units on data tables and the limited evaluation of the significance of the data provided. For example, Table 3J-4 (p. 3-185) states the total permanent stream impacts are 1,373 on intermittent/ephemeral streams. The measurement units and significance of this data to Kirkwood Creek or wetlands is not described.

Recommendation:

The FEIS should expand the evaluation of potential impacts to stream channels and the waters of the United States. For example, state the percentage and significance of potential impacts on the amount of stream channels identified in the area, whether these impacts may be in critical or vulnerable stream channel locations, and the ecological significance for these wetlands. Each table should clearly state the measurement units for the presented data.

Describe restoration of the Thimble Peak Chairlift access road. Although Kirkwood has committed to full restoration of the temporary 25 foot-wide Thimble Peak Chairlift access road, the DEIS states that reclamation in the rocky, sparsely vegetated Emigrant Valley will require above normal reclamation/re-vegetation efforts (p. 2-24). Two of the four affected soils have re-vegetation potential rated as Severe (p. 3-158). EPA is concerned with the ability to restore the temporary road and prevent the long-term risk of significant road erosion and sedimentation.

Recommendations:

The FEIS should describe how Kirkwood plans to restore the Thimble Peak Chairlift access road. State how long the temporary road would be in place, the proposed restoration schedule, and the long-term environmental consequences of not restoring the road.

We recommend providing examples and references of similar restoration efforts and proof that such reclamation can be successfully accomplished prior to significant adverse environmental effects. We recommend consulting the California Alpine Resort Environmental Cooperative's "The Sediment Source Control Handbook."¹ This document may be accessed through the following website: <http://www.waterboards.ca.gov/lahontan/cerec.html>.

Include more detail in the Surface Water Management Plan. Appendix A–Surface Water Management Plan outlines measures for short-term management of disturbed areas during construction activities as well as long-term management of surface water drainage issues (p. A-1). For instance, the Appendix states that three water quality monitoring sites would be established. Monitoring will occur on a weekly basis during construction measuring turbidity, conductivity, and pH. If the baseline is exceeded by > 20%, corrective measures would be applied immediately and construction halted until the problem has been addressed (p. A-14).

Recommendations:

The FEIS should include additional information regarding Best Management Practices and mitigation measures commitments. For example, describe the monitoring and implementation reporting schedule, duration of monitoring, enforcement mechanisms, and validation and effectiveness monitoring. Clarify if each proposed monitoring site would measure for turbidity, conductivity, and pH. We recommend the referenced Figure B-1 (p.A-14) be provided in the FEIS. We recommend continuation of regular cumulative watershed effects monitoring.

The FEIS should also provide information on the potential consequences of not implementing the specific measures described in Appendix A. For instance,

¹ April 2005 preliminary version, written by Michael Hogan, Integrated Environmental Restoration Services, for The Sierra Business Council in cooperation with the Lahontan Regional Water Quality Control Board.

describe the corrective actions taken if remedial measures are not completed prior to the winter, as specified in practice number 2-9 (p. A-6).

Describe the rationale for use of the WEPP model. The environmental analysis used the US Department of Agriculture's Agricultural Research Service Water Erosion Prediction Project (WEPP) model to quantify the potential sediment yield associated with trail construction and grading (p. 3-153). Three different land cover prescriptions were modeled (p. 3-154). The DEIS does not provide the reasons for using this specific predictive model, nor state how the different land cover prescriptions were selected for modeling.

Recommendation:

The FEIS should provide the rationale for use of the WEPP model. Describe the applicability of this model for determining potential sediment yields of the proposed actions. The FEIS should also describe the rationale for the three land cover prescriptions modeled.

Address the reduction of large woody debris recruitment. Table 3H-11 states that large woody debris recruitment into Kirkwood Creek would be reduced due to vegetation removal within the Riparian Conservation Areas (p. 3-160). Large woody debris is an important stream component for fish habitat and hydrologic functions. While the existing conditions of Kirkwood Creek appear to be good (pps. 3-139 to 3-142), there is little large woody debris (p. 3-140) and a sufficient level of cumulative watershed impacts so that the channel was judged to be unsuitable as an indicator of reference conditions (p. 3-167).

Recommendation:

The FEIS should analyze the contribution of large woody debris to the ecological health of Kirkwood Creek and Kirkwood Meadow. We recommend a commitment to mitigation measures that will compensate for the identified reduction of large woody debris.

Describe and address potential impacts of paragliding landings in Kirkwood Meadow. Alternative 2, the Proposed Action, proposes to implement a four-season paragliding program (p. 2-15). Three launch sites would be offered with landing sites in Kirkwood Meadow (p. 3-125). These landing sites would be determined in the future. Although the landing sites would not require construction of facilities, we remain concerned with the potential impacts to sensitive resources in Kirkwood Meadow.

Recommendation:

The FEIS should provide additional information supporting the assumption that landings in Kirkwood Meadow would not result in impacts. Describe the potential impacts of paragliding landings and the anticipated frequency of landing site use. We recommend environmental analysis and public review of the landing site designations.

Other Resources

Provide additional information and independent evaluation in Chapter 3E Air Quality. Chapter 3E Air Quality references and adopts the air quality analyses and conclusions of the EIR for the 2003 Kirkwood Specific Plan. However, the DEIS does not provide a detailed description of the EIR analyses, nor does it include an independent analysis of their accuracy and applicability to the proposed action. In addition, there appear to be conflicting statements in the Existing Conditions and Environmental Consequences Sections. For example, although the DEIS states that the Kirkwood Meadows Public Utility District wastewater treatment plant emissions could exceed particulate ambient air quality standards at Kirkwood (p. 3-90), it later states that all pollutants are projected to be below background air quality standards with the proposed action (p. 3-91). In another example, the DEIS states that only gas-fired stoves are approved (p. 3-96); and later states that mitigation for the potential increase in regional haze would require all new housing units to have EPA-compliant wood burning fireplaces and stoves (p. 3-99).

Recommendations:

The Existing Conditions section for Air Quality should include a detailed description of the EIR air quality analyses, anticipated exceedences of standards, and mitigation measures to address these impacts. The Environmental Consequences section should include a detailed evaluation of the applicability of the EIR analyses and conclusions to the proposed action. We recommend including the 2002 Cirrus Ecological Solutions studies and other air quality analyses in an appendix.

Include a description of traffic conditions on Kirkwood Meadows Drive. Kirkwood Meadows Drive is a two-lane paved roadway, providing the only access from State Route 88 to the ski area base facilities and residential areas within Kirkwood. The DEIS does not provide a detailed analysis of traffic conditions on this primary access road. For instance, the level of service (LOS) for this road is not provided, nor a description of guest and residents' concerns with existing and projected traffic volumes on this road.

Recommendation:

The FEIS should provide specific data on the traffic conditions on Kirkwood Meadows Drive. If feasible, provide a LOS evaluation. We recommend conducting a survey of guests and residents to determine the public's concerns with traffic at Kirkwood. If the survey indicates that traffic is an issue, the FEIS should discuss additional mitigation measures and solutions to address the traffic concerns.

Provide a more rigorous noise impact analysis. EPA is concerned with the potential noise impacts of expanded snowmaking activity. The DEIS states that the snowmaking operation generates noise that already exceeds the Alpine and Amador County standards for residential areas. Furthermore, new multi-family residences will be built near snowmaking areas, in accordance with the approved 2003 Kirkwood Specific Plan. While we recognize that the counties have provided exceedance permits for snowmaking and

Kirkwood will implement a Snowmaking Noise Management Program (p. 3-190), the DEIS does not fully demonstrate that noise impacts would not be significant and unacceptable to users and residents of Kirkwood.

Recommendations:

The FEIS should provide a more rigorous evaluation of potential noise impacts. For instance, include past and present monitoring data, describe the details and conditions of the Alpine and Amador exceedance permits, and evaluate the effectiveness of mitigation measures proposed in the Snowmaking Noise Management Program. The FEIS should provide a clear commitment to mitigation measure to avoid and minimize potential noise impacts.

We recommend updating the ambient noise data, since the most recent data is 1997, and conducting a guest and resident survey to validate the assumption that current and projected noise levels are acceptable.

Describe specific mitigation measures to avoid residual light and visual impacts of the Caples Crest Restaurant and lift. The proposed Caples Crest Restaurant and lift would be visible from the Mokelumne Wilderness and historic Carson Emigrant Trail (pps. 2-14, 3-74, 3-75). Night lighting is proposed since the restaurant would be used year-round and during the evenings. Although the design and lighting plan for the restaurant and lift would be presented to and approved by the Forest Service, in consultation with the Oregon-California Trails Association, we remain concerned with potential adverse visual effects and impacts to the Carson Emigrant Trail and wilderness experience.

Recommendations:

We recommend the FEIS provide a list of specific mitigation measures to avoid and minimize adverse visual impacts. The effectiveness of these measures should be evaluated in the FEIS. For example, describe specific building and lighting design measures; screening of the restaurant, lift, and lights; use of directional lights to minimize visibility; and other design measures to ensure the restaurant and lift blend into the landscape.

We recommend a broader public review process for the final building and lighting design plans.

Commit to mitigation measures to avoid and minimize effects on the Mountain yellow-legged frog and other sensitive species. The proposed project could have indirect effects on the Federally-listed Mountain yellow-legged frog and sensitive species in Emigrant Valley due to an increase in summer hiking, including hikers with pets, as a result of additional summer-run lifts. The DEIS states that the viability of the Emigrant Valley Mountain yellow-legged frog population could potentially be affected. While the DEIS describes mitigation measures for potential impacts to sensitive species, it does not provide a clear commitment to implement these measures (p. 3-54).

Recommendation:

A clear commitment to implement mitigation measures to avoid and minimize adverse effects to the Mountain yellow-legged frog and other sensitive species should be made in the FEIS. These measures include the identification of sensitive habitats and seasons, user education program, pet restrictions, and monitoring and enforcement of trail use and pet restrictions. We also recommend consideration of Alternative 3 as the preferred alternative because of its avoidance of new development in the Emigrant Valley.