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Objection No.: 12-05-00-9957-A218

Date: September 7, 2012

Susan Britting
Sierra Forest Legacy
Sierra Club
P. O. Box 377
Colma, CA 95613

CERTIFIED - RETURN
RECEIPT REQUESTED

Dear Ms. Britting:

The Legal Notice of the objection period for the Creeks II Forest Restoration Project Environmental Impact Statement (EIS) was published on July 10, 2012. On August 9, 2012, I received your objection on the Creeks II Forest Restoration Project. You were eligible to file an objection and your objection letter was filed during the objection-filing period.

This letter is my written response to your objections. As required by 36 CFR 218.10(e), "The Reviewing Officer must issue a written response to objector(s) concerning their objection(s) within 30 days following the end of the objection-filing period."

Project Summary

The Lassen National Forest, Almanor Ranger District proposes to protect rural communities from fire hazards by constructing fuel breaks known as Defensible Fuel Profile Zones (DFPZs); implementing group selection harvest methods to create a fire-resilient healthy forest ecosystem; implementing area thinning to restore stand densities more characteristic of past natural fire regimes and performing associated road system improvement work on approximately 8058 acres of forested federal land near Chester, California.

The project area is located in the Butt Creek Management Area (MA 37), Soda Ridge Management Area (MA 45) and a minor amount in Jonesville MA 44 on the Almanor Ranger District of the Lassen National Forest. The general location is approximately 12 miles southwest of Chester, California, within Plumas County.

The Creeks II project was developed to implement management activities as directed in the HFQLG Act. Specifically, these activities would address long-term forest health, including habitat, by proposing treatments designed to retain or develop stand structures that promote vegetative heterogeneity at both the stand and landscape level. The elements of forest health that are emphasized within Creeks II are sustainability, plant species diversity and structural complexity at both the stand and landscape level, and insect and disease that are endemic (within normal parameters).



Specific objectives include:

- Improve tree vigor, growth, and insect and disease resistance by reducing stand densities and by favoring the retention and development of pine species.
- Protect forest ecosystems from high-intensity, stand-destroying wildfires and provide safe locations for fire-suppression personnel.
- Implement economically efficient treatments to reduce hazardous fuels and contribute to community stability.
- Retain and promote habitat connectivity and stand heterogeneity for late-seral wildlife.
- Increase heterogeneity and diversity within size class 4 stands.
- Promote the health of aspen stands.
- Implement transportation improvement actions to improve watershed and water quality conditions.
- Improve vegetative conditions within Riparian Habitat Conservation Areas (RHCAs) to meet Riparian Management Objectives.

Objection Summary

The Forest Supervisor from the Lassen National Forest offered to meet on August 27, 2012 to discuss your concerns about the Creeks II Forest Restoration Project. You could not attend on the date offered.

Objection Responses

Objection #1 (a): The FEIS relies on approaches to assessing suitable habitat for spotted owl and marten that have been found by experts to be inadequate (i.e. the CWHR system). This has resulted in underestimate of baseline habitat conditions and the impacts of treatments on habitat conditions.

Response: The California Wildlife Habitat Relationship (CWHR) system was designed for wildlife biologists and managers to provide credibility to wildlife analysis and resource management decisions (Mayer and Laudenslayer 1988) (Appendix I FEIS Vol. II, p.621).

Project development included working with John Keane, Research Ecologist; Pacific Southwest Research Station (PSW) to develop models for treatments that address stand issues while minimizing impacts to the spotted owl. The analysis also utilized models developed by Bill Zielinski and Tom Kirk, of the Redwood Science Lab, Pacific Southwest Research Center to consider effects to the American marten as well as a marten habitat suitability model developed by Conservation Biology Institute prepared specifically for the Lassen National Forest Service (Appendix I FEIS Vol. II, p.615).

CWHR classification is the best tool available for analyzing pre and post treatment conditions of habitats at a stand level. Although it is based on averages of canopy cover, tree size and density these averages are taken at the stand level, an appropriate scale at which to consider habitat changes. Some of the habitat attributes that are not accounted for are on a micro habitat scale, which is difficult to measure for such a large area. However, data was collected for a subset of stands to provide an estimate of existing conditions for those habitat features. This data is

presented on page 202 of the FEIS. The post treatment conditions for micro habitat elements such as down logs, snags and understory vegetation are considered and the effects to these habitat features were included in the BE analysis. Assumptions for the post treatment condition of these elements were based on the mitigation and design features incorporated into the design of the project to protect and/or enhance snags, down logs, large trees and understory vegetation (FEIS, pp. iv, vii, 29, 35, 202, 356, BE, pp. 654, 655, 713, 714). Monitoring of California spotted owl (CSO) and marten was also included to help gauge the effects vegetation treatments may have on these species and their respective habitats (FEIS, pp. 414 and 417).

Objection #1 (b): The FEIS relies on approaches to assessing the impacts of treatments on spotted owl and marten habitat that have been found by experts to be inadequate. The cumulative effects analysis examining impacts to territories, outer cores, inner cores, estimated home ranges for marten, and landscape conditions for both species all assume that habitat suitability is universally maintained regardless of treatment prescription as long as the vegetation model predicts that canopy cover remains above 40% and mean tree diameter is greater than 12”.

Response: The BE is a risk assessment that uses changes in CWHR acres of high and moderate value habitat to disclose changes in acres for each alternative. The assumptions made in the BE for post treatment effects to CSO and marten habitat with Alternative 3 are informed by the design features integrated into Alternative 3 for the retention of and/or enhancement of CSO and marten habitat. These design features include snag retention, large tree retention, retention of healthy understory trees, variable spacing of retention trees, and leave islands. There are modifications to treatments within the inner and outer owl territory zones such as limiting treatment A within territories, and the development of treatments O, E, and M. These treatments were developed to retain and/or enhance habitat characteristics for CSO and marten (BE, pp. 655, 656, 666):

Alternative 3 (Table 101) provides an opportunity to enhance marten habitat by addressing the disease and fuels issues and provide design criteria that specifically address the retention of key habitat elements. (FEIS, p. 230)

The existing snag density, down log density and percentage of understory vegetation is estimated in Table 81 of the FEIS (pg. 202). Quantifying post treatment levels of snags, down logs and understory vegetation would be impossible to accurately conclude and therefore must be based on assumptions. In the BE, these assumptions are based on the integration of design features that retain these important habitat features, including post implementation requirements within prescription elements and integrated design features that include maintaining all snags greater than 24-inches dbh and a minimum of 4 to 6 snags per acre regardless of the size of the snag (FEIS, pg. 356).

Treatment O is a DFPZ treatment designed to be used in stands composed of foraging habitat that are adjacent to California spotted owl activity centers. This treatment would also be assigned to some stands that are not suitable habitat (smaller trees and a more open character) but may have inclusions of suitable habitat or have attributes that could be developed as suitable habitat in the near future. A key element to this treatment would be the retention of diversity islands in approximately 15 percent of the treatment area. Treatment O would alternately thin and retain diversity islands to emphasize the retention of suitable habitat characteristics

immediately after treatment and reduce the risk of widespread mortality from insect and disease outbreaks, as well as reducing impacts due to wildfire (FEIS, pg. 28; Appendix H FEIS Vol. II, pg.564).

Alternatives 2 and 3 include integrated design features (IDFs) to benefit marten, including leave islands and retention of snags and logs within DFPZs at a higher level than required under current direction (FEIS, pp. 354 to 356; Appendix I FEIS Vol. II, pg.713). Alternative 3 includes an additional silvicultural prescription (Treatment M) designed to address concerns for habitat features. Treatment M marking prescriptions are designed to retain healthy, vigorous trees of varying size classes that have a live crown ratio of 50 percent or greater. Surface fuels would be treated so that no more than 5 tons per acre of down woody material from 0-3 inches in diameter would exist following all treatments; surface fuels greater than 3 inches diameter, but less than 12 inches in diameter do not exceed 10 tons per acre; and overall, desirable surface fuel loading would not exceed 15 tons per acre. In addition, all large down woody material greater than 12 inches in diameter, at the small end, and a minimum of 6 feet in length would be retained when treating surface fuels (FEIS, pg. vii). Design features also include guidance to retain healthy understory trees (trees with 50 percent live crown) that are typically removed to meet DFPZ standards. This element was added to retain understory structure where it exists, which has typically been removed within DFPZs (Appendix I FEIS Vol. II, pg.714).

Objection #2: The notion that use of information in an environmental analysis is limited to “peer reviewed” information is arbitrary. The limitation imposed on the trend analysis for the owl population results is arbitrary

Response: The Creeks II FEIS and BE analyze both peer-reviewed and non-peer reviewed reports for the environmental analysis. Throughout the BE, non-peer reviewed reports are cited, for example Burnett et al 2008, Keane 2011, Keane 2005, Gutierrez et al 2012, etc. (BE, pg. 742). However, the BE does present the current results of the SNAMP study, which analyses trend analysis for CSO population, with caution:

The website where this is reported provides several important caveats. The data has not been peer reviewed therefore the meta-analysis remains the most up to date document regarding owl demographics. (FEIS, pg. 205).

See response to Objection #3 (d) (below) for further discussion about California spotted owl populations.

Objection #3 (a): The Creeks project violates the NEPA because Alternative 4 was revised between the DEIS and FEIS.

Response: 40 CFR 1503.4 states:

(a) An agency preparing a final environmental impact statement shall assess and consider comments both individually and collectively, and shall respond by one or more of the means listed below, stating its response in the final statement. Possible responses are to:

- (1) Modify alternatives including the proposed action.
- (2) Develop and evaluate alternatives not previously given serious consideration by the agency.

- (3) Supplement, improve, or modify its analyses.
- (4) Make factual corrections.
- (5) Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response.

Revisions were made in response to comments submitted by Sierra Forest Legacy on the DEIS. In particular, inconsistencies in the interpretation of Alternative 4 between resource specialists were corrected by modifying the description of the activities included in Alternative 4 and supplementing the analysis of effects for Alternative 4.

The revised Alternative 4 continues to meet the objectives of this project and the analyses of effects are appropriately disclosed in resource reports and the FEIS for the Creeks II project, including an analysis of potential effects of Alternative 4 to the California spotted owl and American marten and their habitat. The Forest Service responded to Sierra Forest Legacy's (SFL) concerns regarding the inconsistencies in the DEIS and the responses are documented in the Creeks II FEIS, Volume 2 (Response to Comments on DEIS). Forest Service responses are located in PC 9, 10, 53, and 57, with specific responses regarding the analysis inconsistencies contained in PC 10. The Creeks II project record also contains documentation in the form of a white paper for the rationale for correcting the inconsistencies in Alternative 4 between the DEIS and the FEIS.

Objection #3 (b): The Creeks project violates NEPA because the impacts displayed by alternative are not treated equally.

Response: The objector correctly calculates the volume per acre by dividing the volume figures in Table 72 by the acres to be treated under the corresponding alternative. However, the objector did not take into account the differences in the treatments proposed in Alternatives 3 and 4 when using these calculations to indicate that greater amounts of small diameter material will be removed under Alternative 3 compared to Alternative 4.

Alternative 3 includes removal of biomass on 299 acres of aspen and 647 acres of group selection treatment, substantially increasing biomass volume to be removed as compared to Alternative 4. Combined biomass volume for aspen and group selection treatments under Alternative 3 is 17,665 CCF. If biomass volume of aspen and group selection treatments are deducted from the total biomass volume shown for Alternative 3 (FEIS, Table 72, pg. 179) and divided by the remaining net treatment acres for each alternative shown in Appendix C-3 and C-4 of the Creeks II Silviculture Report, an average of 5.4 CCF per acre of biomass would be removed in DFPZ and area thin treatments under Alternative 3 and an average of 5.5 CCF per acre of biomass would be removed in DFPZ and area thin treatments under Alternative 4. The Creeks II Silviculture Report (Appendix C-3, Alternative 3 Economics and C-4, Alternative 4 Economics) provides a breakdown of each alternative by prescription, net treatment acres, average saw log and biomass volume per acre and total combined volume.

Objection #3 (c): The Creeks project violates NEPA because the effects of Alternative 3 on American marten are underestimated.

Response: Effects to American marten related to the Creeks II Project are discussed on pages 222 to 233, with determinations discussed on pages 238 to 239 of the FEIS. Figure I-19 displays marten detections and seasonal study survey points for the Creeks II project area (FEIS, p. 697). Two maternal den sites were identified within the project area, both stumps. No natal dens have been detected within the project area. Reuse of maternal den sites as well as rest sites appears to be uncommon (Appendix I FEIS Vol. II, pg.693). A map with the two known maternal marten den sites, including the 100 acre buffer containing the highest quality suitable habitat, will be included in the final Wildlife BE/BA. Neither known maternal den site is located within a proposed treatment unit in the preferred alternative. To decrease the possibility of impact to marten, two stands, one with the maternal den site found in 2009, were not carried forward from Alternative 2 to Alternative 3 (the preferred alternative). Neither of the two 100-acre buffer areas includes proposed treatments. Approximately 130 acres of moderate to high quality habitat known to be used by marten and providing a corridor through treatments on the Humbug Summit road were also removed from proposed treatment under Alternative 3 (FEIS, pg. 726). Likely home ranges were considered in the analysis and changes in habitat value were disclosed (FEIS, pp. 725, 729). Figure I-26 displays the estimated male marten home range territories (FEIS, pg. 711). Following current direction (USDA Forest Service 2004a, pg. 62), and LOP is included for this project within buffers surrounding occupied marten or fisher den sites (FEIS, pg. 355).

Treatment M was added to Alternative 3 to address concerns for furbearers and includes stands largely dominated by small trees with little understory vegetation and a lack of large snags and down logs that would provide marten cover or reproductive habitat (FEIS, pg. 35). Treatment M is a DFPZ treatment that would address fuels and meet DFPZ objectives, but focus on long-term improvement in marten habitat. It is designed not just to retain habitat elements, but to ensure that habitat remains or improves over time (FEIS, pg. 36).

Objection #3 (d): The Creeks project violates NEPA because the effects of Alternative 3 on California spotted owl are underestimated.

Response: The Wildlife Report and Biological Evaluations recognize that there are indications of declining population trends. The BE acknowledges the possibility that past logging practices may be a contributing factor influencing the Lassen population (FEIS, pg. 635). The BE also recognizes that the actual cause of the declines is unknown and that the demography studies do not examine the source of such declines (FEIS, pg. 636). However there is also considerable evidence of habitat loss due to wildland fire and drought related mortality. As discussed in the Wildlife Report, there continues to be controversy when trying to balance projects that address these issues. The analysis of the alternatives identifies these risks in a comparative form and provides options that minimize the risk to wildlife particularly late seral species. The alternatives also provide some benefit in the form of greater protection against the loss of habitat due to wildfire, as occurred with the Storrie and Moonlight fires (Appendix G FEIS Vol. II, pg. 500).

Habitats that lack a large tree component were emphasized for treatment to increase the amount of nest and roost habitat in the future. The treatments of either alternative would result in very little habitat loss within any territory; however, they would provide long-term benefits including a reduction in the risk of habitat loss due to fire and the increased risk of mortality due to insect and disease. The existing large tree component would also benefit from a reduced risk of

mortality and treated stands are likely to attain larger trees sooner as tree growth responds to a reduction in resource (sunlight and water) competition (FEIS, pg. 213).

Information from Blakesley (2005) was considered and referenced a number of times in the BE/BA and a detailed habitat analysis was provided within the 500 acre territory center for each territory. This analysis, although not explicitly compared to the 83% average, thoroughly examined habitat quality and treatment effects to habitat quality within these areas (FEIS, pp. 645, 646, 653, 658, 667). In addition, treatments were very limited within these 500 acre territory centers and where they were included were carefully and thoughtfully designed to minimize any impacts to owl habitat (FEIS, pg. 662).

Objection #3 (e): The Creeks project violates NEPA because the cumulative effects of the project on spotted owls and marten are not adequately disclosed.

Response: The analysis of the alternatives examines current conditions (baseline conditions) in the project area, as well as expected trends in conditions if no action is taken, for each resource. This examination provides a baseline for comparison of alternatives. The measurement or description of these current conditions is dependent upon each resource. Cumulative effects of private logging and past actions are included in Appendix E of the FEIS and throughout the wildlife BE/BA. Both the BE/BA and the wildlife report consider changes in habitat between the existing condition and as a result of project implementation.

The BE summarizes habitat conditions within the project area, including summarizing large tree data (FEIS, pp. 633 through 634). Locally, Keane (2006) sampled 80 nest sites using Forest Inventory and Analysis (FIA) plot methods which are designed to collect data such as wildlife habitat information. The habitat data provided by the FIA plots and reported by Keane 2006 is reflected in the BE/BA (Appendix I FEIS Vol. II, pg.633). The BE also discusses both range-wide status and status within the project area, including trends within a period from 2000 – 2011 (FEIS, pp. 635 through 639).

The BE/BA describes American marten species and habitat status (FEIS, pp. 692 through 703). Discussion of the direct, indirect, and cumulative effects of Alternative 1 continues the baseline discussion to include projected trends within the project area.

Objection #4 (a): The Creeks project violates NFMA because the adaptive management for American marten has not been implemented.

Response: A monitoring program for the Creeks II project was developed (FEIS, Appendix F pp. 407 through 415) to ensure that project objectives were met. This plan is intended to incorporate scientific monitoring on the project level as a way to address the measurement indicators outlined with the project objectives (FEIS, pg. 407), and includes monitoring of marten habitat to measure changes in key marten habitat attributes as a result of treatment and to test marten movements through various treatment areas within marten territories. Vegetative analysis will be completed through LiDAR analysis, comparing pre- and post-treatment changes. Vegetation data and LiDAR will be collected prior to project implementation and one year post-treatment. Camera and track plate stations will be collected prior to implementation, one year post treatment, and potentially five years post treatment (FEIS, pp. 409, 413).

While not intended to become a standard for monitoring associated with future decisions in the Almanor Ranger District or the Lassen National Forest, it is expected that information gathered will be useful to future decisions (FEIS, pg. 407).

Objection #4 (b): The Creeks project violates NFMA because the preferred alternative (Alternative 3) threatens the viability of California spotted owl.

Response: Bart (1995) was considered in both the wildlife report and BE to compare existing, and conditions that might exist, post treatment. Bart provided a basis for maintaining populations at the landscape level.

In addition to the Eldorado study area, recent data has been considered in the Lassen study area and indicates less of a decline than previously thought. As pointed out in the wildlife report, territory occupancy has remained constant over the last decade within the project area. The BE outlines the recent history of owls within the demography study and the project area. The data reflects a declining trend for the demography study area, but a slight upward trend for populations within the project area, despite treatments over the last decade (Appendix I FEIS Vol. II, pg. 638).

The determination findings for California spotted owl are discussed in the FEIS on page 238:

Habitat was considered at both the landscape and territory scale. Treatments were developed for spotted owl territories to achieve long-term improvements in structure (develop multi-layered canopies) while reducing risk associated with habitat loss. Treatment design was augmented through consultation with spotted owl researchers. Based on the variety of research considered, there is a low risk to the owls and the alternatives would not result in a decline of occupied territories. (FEIS, p. 238)

Objection #4 (c): The Creeks project violates NFMA because the preferred alternative (Alternative 3) threatens the viability of American marten.

Response: The current marten study on the Lassen National Forest has demonstrated that marten use of habitat differs summer and winter; therefore, a combined habitat model is likely an inaccurate predictive tool. It is important to note that the CBI model uses several elements in determining habitat value including elevation, patch size, and distance to water. Therefore whereas a habitat analysis based solely on vegetation would indicate higher amounts of moderate to high value habitat, the CBI summer model shows that very little of the project area contains high value habitat and that high value habitat would remain unaffected by the project. The BE compared the overlap from the summer habitat model and found that only minor amounts of moderate value habitat (as predicted by the model) would be affected by the project (Appendix G FEIS Vol. II, pg.495).

Changes to Alternative 3 based on collaborative input, created a new DFPZ treatment M to address concerns for furbearers. It was applied within stands of red fir in size and density classes CWHR 4M and 4D to address fuels and meet DFPZ objectives, and would focus on long term improvement in marten habitat within the project area. The treatment includes promoting attributes described during the collaborative discussions, such as heterogeneity, down logs and cover, and structure. (Appendix I FEIS Vol. II, pg.569).

The effects of Alternative 3 treatments, including 647 acres of group selection and 299 acres of aspen, on all tree size classes (pole, small, medium, and large) would be a 2,034 acre increase of canopy cover density class “P” (25% to 39%) (FEIS, pg. 150, Table 58).

The determination findings for American martin are discussed in the FEIS on page 238:

Based on habitat and structural characteristics, none of the alternatives would be likely to result in a measurable reduction of marten presence within the project area. (FEIS, p. 238)

Objection #4 (d): The Creeks project violates NFMA because the Management Indicator Species approach fails to meet the intent of NFMA.

Response: As noted in the FEIS on pages 489 through 491, the response to public concern 54, MIS considers the amount of habitat on NFS lands, which is a separate issue from population trends. Until the Lassen and Eldorado population data has been finalized and peer reviewed, current trend data is expressed in the latest meta-analysis.

There are no claims within the wildlife report, BE, or FEIS that “the immediate benefit of logging is to create a condition that biologically reflects closed canopy late-seral habitat” for MIS. These documents reflect a body of research that has demonstrated that with treatment, canopy cover will continue to increase over time providing higher canopy cover in the future with a reduced risk of mortality (Response to Public Concern 54, FEIS, pg. 490).

The Creeks II MIS report considers the amount of habitat on NFS lands and is designed to compare the impacts of the project on habitat trends at the bioregional scale (Wildlife Report, pg. 103; FEIS, pg. 491). Analysis of species at the bioregional scale is beyond the scope of this analysis. In addition to the Eldorado study area, recent data has been considered in the Lassen study area and indicates less of a decline than previously thought. As addressed in the Wildlife Report, territory occupancy has remained constant over the last decade within the project area. The biological evaluation outlines the recent history of owls within the demography study and the project area. The data reflects a declining trend for the demography study area, but a slight upward trend for populations within the project area, despite treatments over the last decade (Appendix I FEIS Vol. II, pg.638).

Suggested Resolution

The objector request the original Alternative 4 be identified as the Preferred Alternative, revise the FEIS to correct the deficiencies noted in objection, and selection of Alternative 4 in the Record of Decision.

Response: As discussed above, the agency believes that the preferred alternative (Alternative 3) is consistent with all relevant laws, policies and regulations, and that this Alternative best meets the purpose and need of the project (FEIS, Table S-3, pp. x-xi).

Conclusion

The Forest Supervisor’s rationale for this project is clear and the reasons for the Creeks II Forest Restoration Project are logical and responsive to direction contained in the Lassen Land and Resource Management Plan and the Healthy Forest Restoration Act. As described above, the

Lassen National Forest made reasonable and appropriate efforts to resolve the concerns that were brought forward while maintaining a balanced approach to managing the lands and meeting the purpose of the project.

By copy of this letter, I am instructing Forest Supervisor Jerry Bird to proceed with issuance of a Record of Decision for this project. There will be no further review of this response by any other Forest Service or U.S. Department of Agriculture official as per 36 CFR 218.11(b)(2).

Sincerely,

/s/ Barnie T. Gyant
BARNIE T. GYANT
Deputy Regional Forester
Reviewing Officer