

Objection Issues

FOREST MANAGEMENT, OLD GROWTH AND WILDLIFE HABITAT

PRIMARY OBJECTORS:

Harold Singer

Center for Biological Diversity and the John Muir Project, Earth Island Institute, **Justin Augustine**

Sierra Forest Legacy, **Craig Thomas and Michael Graf**

Summary of Objection Issues: The objectors contend that the FEIS fails to provide a map of current old-growth forest habitat, and fails to provide any data, or maps, on the estimated effect (degree of increase or decrease over time) of each alternative on this key resource. Thus, they believe the FEIS fails to adequately analyze impacts of the proposed forest plan revision on old-growth forest. They state that the risks/harms of commercial logging are either not considered, or are improperly minimized and that this violates NEPA's hard look standard because numerous scientific studies document significant harm to rare, imperiled, and/or at-risk wildlife species.

Many of the objectors, including Mr. Harold Singer and the Sierra Forest Legacy, are very concerned about the potential removal of trees 30 inches diameter breast height (dbh) and larger. They believe the plan should limit the removal of trees 30 inches dbh and larger to a more limited number of circumstances. They assert that the Plan is making a judgment that aspen and meadow restoration are more important than maintaining large trees [Let nature take its course, don't force the landscape into our vision] and claims that the plan gives unlimited discretion to cutting large trees and the consequence it may have especially to late seral, closed canopy dependent wildlife. They add that trees of this size contribute to forest structure and function and state that removing large trees could "lead to the lack of protection for large trees clumps within stands and at the landscape level which will lead to forest simplification and loss of heterogeneity." They believe that when large trees need to be removed, a wildlife biologist should make the final call on whether the tree should be retained or removed, felled, or girdled for snag creation.

They also believe that neither the plan nor FEIS provides a clear and precise definition of what constitutes "restoration" as a forest-wide Plan objective. They contend that at a fundamental level, the Forest Service has not defined the relationship between forest "restoration" and these elements of forest decay that also happen to be a primary characteristic of high quality wildlife habitat for many species. There is also a concern that the LTBMU FEIS did not model and analyze in any other manner the removal of trees > 30 inches dbh and that this failure is contrary to NEPA's requirement to take a "hard

look” at potential environmental impacts and that the ID Team could have easily sampled past treatment units to get a reasonable sample of sites with variable conditions that would have given the public a quantified sampling of the levels of 30 inch tree removal in the planning area. They assert that failing to provide this information [that could be collected] is a violation of the NEPA requirement for accurate scientific information (40 CFR § 1500.1 (b)).

The Center for Biological Diversity focuses on the detrimental effects of commercial logging and removal of post fire snags on the Black Backed Woodpecker and other species such as the California Spotted Owl. They question the data and subsequent conclusions used regarding tree mortality and accuse the LTBMU of not taking a hard look, as required by NEPA. They are concerned that the plan wrongly emphasizes forestry objectives over ecology by promoting the reduction of fire, beetles, and disease. The objectors contend that the FEIS fails to provide a map of current old-growth forest habitat, and fails to provide any data, or maps, on the estimated effect (degree of increase or decrease over time) of each alternative on this key resource. Thus they feel the FEIS fails to adequately analyze impacts of the proposed forest plan revision on old-growth forest. They state that the risks/harms of commercial logging are either not considered, or are improperly minimized and that this violates NEPA’s hard look standard because numerous scientific studies document significant harm to rare, imperiled, and/or at-risk wildlife species.

Objectors ask that an additional alternative be included through a supplemental EIS. They claim, the “FEIS does not include an action alternative (for full and complete consideration and analysis) that would institute an active management approach that would result in more active management than Alts. B and C (and A), but would do so in a non-commercial, ecological approach that would focus on actively managing forests, including mature trees, to accomplish ecological goals, but by actively creating habitat structures without commercial logging—i.e., without removing wood commodities (sawtimber or biomass) from the LTBMU (personal use firewood permits would, therefore, be allowed, as this is not wood commodity production).”

SUMMARY OF REVIEW TEAM:

Old Growth: The LTBMU FEIS adequately addresses the issue of spotted owl population decline in the FEIS (Chapter 3, beginning on pg. 492). A review of literature explaining the declining population of the spotted owl is also disclosed in this section. The Forest Service has listed the California spotted owl as a sensitive species meaning it is a species whose “populations are of some concern because of overall declines or risks from land management activities on the Forest.” As a sensitive species, additional consideration is given to management of the species habitat (LTBMU Plan, Chapter 2 SG 86 to 93).

The LTBMU has taken adequate steps in their forest plan to minimize negative impacts on the California spotted owl and its habitat (LTBMU revised plan Chapter 2, FEIS. Chapter 3.4.23: Terrestrial Wildlife Habitat and Species).

The Spectrum model did not take into account removing trees 30 inches in diameter and larger. Although the FEIS does clarify how trees greater than 30 inches are selected for removal, it never addresses a basic concern brought by several of the objectors of providing some idea how often large trees will be removed. The LTBMU should provide further information to give the public a better understand of the magnitude of potential removals.

The Forest has responded to this issue in Appendix N, pg. N-124, "As stated in the Forest Plan Consistency section of the Revised Plan Introduction, projects and activities are required to comply with Guidelines as well as Standards. The guideline related to the removal of trees 30 inch dbh or larger has been revised to clarify the limited exceptions under which these trees may (but not must) be removed, girdled for snag creation, or felled as coarse woody debris. The use of this guideline would be for circumstances that represent exceptions rather than common practice, and would be based on project-level purpose and need as well as on site-specific conditions. Therefore, there is no meaningful way to disclose impacts associated with this guideline except at the project-level, not at the level of the Forest Plan. However, we acknowledge the potential for the loss of some large trees and the FEIS effects analysis has been updated to reflect this potential."

Appendix N, pg. N-144..."We realize that the potential for the killing of trees larger than 30 inches in diameter, reducing canopy cover, and restoration of PACs seem counter to the protection of the habitat components very strongly associated with spotted owl habitat. Our intention is to protect these habitat features into the future for sustained habitat quality, and improved habitat quality for spotted owls and other sensitive terrestrial wildlife species. We have revised the Plan (Alternative E) and the FEIS to clarify that wildlife needs would be key drivers in the development of these projects and that all projects would be developed through the work of an interdisciplinary team and be subject to NEPA."

The revised land management plan released with the November 2013 FEIS accepted the recommendation in the objector's comments to use an ID team to assess whether trees greater than 30 inches should be removed; SG 33 states: "Where trees greater than 30 inches dbh need to be removed, ID Team members (e.g., vegetation management specialist, wildlife biologist, scenic specialist, recreation management specialist) will propose trees to be removed, girdled for snag creation, or felled for coarse woody debris during project development."

Range of Alternatives: The LTBMU has explored a reasonable range of alternatives in their FEIS according to NEPA and CEQ's definition of the term.

The forest looked at an adequate range of alternatives and completed the appropriate level of analysis per alternative. The forest did an adequate job with alternative E and does not need to modify it further

as it relates to the number of entries and has addressed the rationale on why there is active intervention in forests in appendix N, which explains why an active management, non-commercial alternative was not considered in detail.

“The desired ranges of structural classes for each major forest type are a reflection of disturbances in a more naturally functioning ecosystem where such disturbance regimes can occur without human intervention. The current forest conditions stem from the Comstock-era logging, as well as efforts over the past 100 years to suppress wildfires. Therefore, one of the primary natural drivers that would have shaped the landscape while the post-Comstock-era forest was re-initiating (i.e. fire) did not occur. Likewise, other disturbance factors such as drought related mortality are quickly removed to lower the risk of nearby trees becoming infested by bark beetles. Natural and historic ranges of variability are discussed during project development to best prescribe surrogate treatments that more closely resemble what would be expected if a naturally occurring disturbance were to occur” (page N-20, PC 170).

Restoration: Although the primary objective of the LTBMU Forest Plan is not to target wildlife habitat creation, the LTBMU has stated that restoring the Management Unit to pre-Comstock conditions is a waypoint on the path to the desired conditions of the plan, that includes restoring and maintaining a range of seral stages: “Compared to pre-Comstock conditions, forest types are structurally much more homogeneous, and stand densities have increased in the montane and upper montane zones. Late seral conifer forests are under-represented compared to pre-Comstock conditions, and post-fire early seral conditions are found in large contiguous blocks rather than in scattered patches. Overall, these changes have had a negative effect on biodiversity, and forest resilience to fire, drought, insects, and pathogens has been compromised..... Achieving approximate pre-Comstock conditions to the proportions outlined in Table 1 will help to restore key ecological processes that are currently absent or compromised” (Plan pg. 19)..

The effects of the plan on wildlife were evaluated in the Biological Resource Protection section of FEIS Chapter 3.4.23 including effects of the alternatives on the spotted owl, northern Goshawk and other late seral closed canopy forest (Old Forest Emphasis Areas) associated species.

The LTBMU Forest Plan has not adequately addressed the first portion of commenter’s concern related to a lack of a definition for restoration but has adequately addressed the second portion relating to high quality wildlife habitat.

Forest Inventory: The LTBMU FEIS analyzed the Forest Inventory and Analysis (FIA) data in Table 3-42, Current Forest Conditions by California Wildlife Habitat Relationship Class and Seral Stage based on Forest Inventory.

The FIA program is a scientifically rigorous program to assess the quantity and quality of the nation’s forest including the LTBMU. The table has acres of by forest type and seral stage but it does not have

estimates of trees greater than 30 inches in diameter. Table 3-41 has the desired range of stocking (density), basal area of live trees, the number of snags and tons per acre of coarse woody debris on the forest floor but not the current assessment of stocking by size classes. So the statement by the objector that the data is not in the LTBMU documents is correct but there are other methods besides conducting stand level inventory to gather this information, such as using the FIA data. It is suggested that the LTBMU investigate using the same FIA data that was used to construct Table 32 to produce another table with stems per acres by size class and forest type with a format consistent with other tables in the FEIS. The LTBMU should consider further addressing this issue.

Snag Retention: The major concern from the objector is the perceived limit of snags to three or six per acres for specific species. Much of the research show higher numbers of snag retention per acre. With regard to active snag creation, scientific data indicates that average snag densities in the natural condition on the LTBMU is about 8 snags per acre over 16 inches in diameter at breast height in unburned forest (Barbour et al. 2002). The focus from the Basin should be ensuring a proper distribution of snags, which will vary by tree species.

Insect and disease: In response to the concern, the “plan should clarify how it considers the ecological role of beetles, disease, and fire in forest ecology,” the LTBMU responded in the FEIS appendix N, “the plan seeks to reduce beetle risk and fire effects that are outside of the natural and/or historic ranges of variability. Objectives aim to reduce forest stand densities from conditions that do not represent natural conditions and would result in extraordinary outbreaks and catastrophic fire.”

Forest vegetation management options reflected in the forest plan follow precepts of ecosystem-based management. Given that there are no lands suitable for timber production in the LTBMU, the practice of forestry is aimed at objectives other than timber, meaning wildlife, recreation, scenic, or other resource objective. After public safety has been addressed, snags and down wood that are created by natural processes are a desirable component in the forest. Additional considerations are covered in the forest plan when retaining snags. The review team analyzing the objection issue finds this response consistent with current Forest Service policy.

Black-backed Woodpecker: The LTBMU has chosen the Black-backed woodpecker as a “management indicator species” (MIS) for the ecosystem component of snags in burned forests because data indicate that the black-backed woodpeckers are strongly associated with snags created by mid- and high-severity fires. As a result of this information, the bioregional monitoring effort for black-backed woodpecker has created a sampling frame of all fires that occurred within the 10 preceding years that included at least 124ac (50 ha) of conifer forest that burned beginning in 2009. The results of these surveys indicate that the Black-backed woodpecker population is stable across these 10 forests.

Based on the record, the LTBMU has shown no reason to believe that they violate NEPA’s hard look standard for rare or at risk species.

The plan's objectives are well supported in the literature. The question is really about whether or not bark beetle outbreaks are acceptable or not. Given the extensiveness of overly dense forest conditions, and the objectives for scenic quality in the LTBMU, beetle outbreaks and the tremendous tree mortality that can be associated with them are not acceptable. Therefore, thinning the forest stands below maximum stand density index for each of the major forest types on a periodic basis will lower the risk of outbreaks and improve resiliency of the stands to withstand natural levels of beetle attack.

In the FEIS the difference between alternatives B, C and E is the amount of thinning per acre (which is highest in Alternative C) and the number of acres treated over time. The plan seeks to reduce beetle risk and fire effects that are outside of the natural and/or historic ranges of variability. Objectives aim to reduce forest stand densities from conditions that do not represent natural conditions and would result in extraordinary insect/disease outbreaks and catastrophic fire.

Forest vegetation management options reflected in the forest plan follow precepts of ecosystem-based management. Given that there are no lands suitable for timber production in the LTBMU, the practice of forestry is aimed at objectives other than timber, meaning wildlife, recreation, scenic, or other resource objective. After public safety has been addressed, snags and down wood that are created by natural processes are a desirable component in the forest. Additional considerations are covered in the forest plan when retaining snags.

INSTRUCTIONS BEING CONSIDERED

- Clarify in the Record of Decision that removal of trees greater than $\geq 30''$ dbh will be the exception rather than the rule.
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- Consider instructing the Regional Forester to have the LTBMU track and evaluate the impacts of removing ≥ 30 dbh on the quality and distribution of closed-canopy late seral coniferous forests for vegetation management projects such as fuels reduction and restoration. Exclude tree removals associated with special use permits such as utility lines.
- It is unclear why trees greater than 30 inches were not modeled for removal in Spectrum and how would their removals affect the future projection. The reason for not modeling large trees should be explained.

- It is suggested that the LTBMU consider using the same FIA data that was used to construct Table 3-42 to produce another table with stems per acres by size class and forest type with a format consistent with other tables in the FEIS.
- Suggest that LTBMU explain why the graphs (Section 3.4.11 – Forest Vegetation) are relevant in spite of not reflecting disturbances. Are they relevant because of the relative values shown in the graphs would still be true even if disturbance were modelled?
- A search of the internet did find the probable source of the citation which is the 1999 doctoral thesis by Jim Bouldin. The citation needs to be added to the FEIS and possibly a copy of the thesis to the literature sub-directory.
- The LTBMU should ensure restoration is clearly defined and clearly linked between the desired conditions and general definition in the glossary.
- Clarify the purpose and use of Tables 1 and 2 in the plan, which is to provide guidelines for developing project-level prescriptions and measurable forest restoration standards for vegetation management and wildfire risk reduction efforts. Clarify the relationship of these tables to Desired Condition 23.
- Agreed that Standard 37 is not additive when the language in SG38 is very similar. Recommend combining SG37 and SG38 into one standard.
- Recommend writing the guideline to focus on snag distribution and not focus on specific numbers for specific species. Clarify that specified snag retention numbers are minimums, not limits. SG 62 includes distribution. SG 59 covers distribution for post-fire conditions. Consider adding more specifics in SG62 from SG 59.
- The region needs to consider the effects of post fire logging on California spotted owl habitat and viability. Conduct a literature review and synthesis of post-fire logging effects. There is a lot of post-fire logging literature, studying many different ecological, social, and economic aspects. As a result, the “effects” noted in the literature regarding post-fire logging effects are varied and depends on the aspect studied and the question(s) asked. Through an adaptive management approach, consider whether new direction is needed as research evolves. Amend forest plan as needed.

- Evaluate SG88 to emphasize removal of smaller trees contributing to canopy closure management as these were least likely to have contributed to suitable condition in the past. This view must be balanced against the timing of loss of the oldest trees in order to provide for proper canopy closure through time. The objective is to maintain and sustain the habitat, not lose it through management actions.

REMEDY(S) PROPOSED BY OBJECTORS

- Standard 33 allowing removal of trees >30 inches in diameter should include language that this type of removal is expected to be rare and incidental to general management prescriptions.
- A certified wildlife biologist will make the final determination as to the retention, removal or girdling of all trees > 30 inches in SG 33 b, c, d, e and f regarding retention of trees with important habitat value for wildlife.
- All large tree removal of trees > 30 inches diameter will be documented and tracked in the LTBMU for the first 5 years at which time the issue of removal and tracking will be revisited.
- Use of the PSW GTR-237 Appendix and the Dinkey Fisher Marking Guidelines shall be included in these marking and training sessions.
- The objector recommends deleting the entire standard
~~In late seral closed canopy stands (greater than 50 percent canopy closure), treatments shall not reduce canopy cover in dominant and co-dominant trees by more than 10% across a stand, or below the desired conditions for the area. [Standard]~~
- The objector recommends the following change to the Guideline:

SG62. Manage snag levels during project specific analysis after consideration for public safety. For projects not associated with post-fire burned forest habitat, prioritize retention of medium- and large-diameter snags or live trees that exhibit form and/or decay characteristics regarded as important wildlife habitat (e.g., have substantial wood defect, teakettle branches, broken tops, large cavities in the bole, etc.). Retain snags as follows: [Guideline]

a) Red fir forest type and white fir-mixed conifer forest types ~~—on average, strategically locate and retain six all of the largest snags per acre (In the WUI, fewer snags may be retained.)~~

b) Jeffrey pine – ~~on average, strategically locate and retain three~~ all of the largest snags per acre ~~(In the WUI, fewer snags may be retained.)~~

c) ~~Snags should be clumped and distributed irregularly across treatment units.~~

d) Snags with cavities are a priority for primary and secondary cavity nesters (e.g., mountain bluebirds, house wrens, and white breasted nuthatch). When snags are absent consider installation of nest boxes to benefit cavity nesters.

e) Consider multiple resource values to determine appropriate retention levels based on availability and project objectives.

- SG90. Allow vegetation treatments in PACs for the purposes of PAC restoration when both of the following conditions apply:
 - a) Surveys for the target species conducted to meet Region 5 protocol demonstrate that reproduction has not occurred within the PAC in at least the previous three years;
 - b) The PAC is not currently occupied; and either i. Desired conditions within the PAC are not being met and conducting treatments would achieve the desired conditions or shorten the time until those conditions would be expected to occur; or ii. Desired conditions are currently met but vegetation treatments are required to maintain desired conditions over the next 15 years. [Standard]
- SG92. Allow vegetation treatments in PACs to reduce threats (e.g. pathogens, insects, disease and/or stand-replacing wildfire) to the persistence of forested stands in or adjacent to PACs. [Standard] Need to apply treatment in insufficiently defined. See above.
- Utilized similar monitoring techniques as done elsewhere, on the LTBMU to monitoring presence/absence for 2 years (track plates, scat-sniffing location dogs, baited camera stations, etc.) prior to treatment implementation. Limit impacts and degradation in high use areas.
- SG88. Where canopy cover in PACs and HRCAs exceeds desired conditions, maintain current cover unless reduction would improve habitat conditions to meet life history needs of the species or reduce the risk of stand-replacing wildfire. Retain canopy cover to maintain at or above a minimum of 50% in PACs and 40% in HRCAs, except where less is needed to achieve standard and guide for restoration of PACs/HRCAs. [Guideline]
Change to: In PACs and HRCAs, maintain current cover to meet life history needs of the species. [Guideline]

- SG90. Allow vegetation treatments in PACs for the purposes of PAC restoration when both of the following conditions apply: a) Surveys for the target species conducted to meet Region 5 protocol demonstrate that reproduction has not occurred within the PAC in at least the previous three years; b) The PAC is not currently occupied; and either i. Desired conditions within the PAC are not being met and conducting treatments would achieve the desired conditions or shorten the time until those conditions would be expected to occur; or ii. Desired conditions are currently met but vegetation treatments are required to maintain desired conditions over the next 15 years. [Standard]....Change to: DELETE the STANDARD
- Include a standard for a limited operating period (LOP) for moderate and high severity burn areas which prohibits logging during the nesting season to protect the multitude of nesting birds, including Black-backed Woodpeckers and their offspring, until the chicks can survive independent of the parents (April through August).
- Incorporate, as forest-wide standards, requirements to retain, in all current suitable Spotted Owl nesting and roosting habitat as defined in USDA (2001b [Volume 3, Table 4.4.2.1c]), at least 185-350 square feet per acre of live tree basal area, at least 20-30 square feet per acre of basal area in snags over 15 inches in diameter, and at least 70% canopy cover, consistent with the description of suitable habitat in the scientific literature (Verner et al. 1992, USDA 2001b [Vol. 3, Table 4.4.2.1c], Bond et al. 2004, Irwin et al. 2007).
- Incorporate as a forest-wide standard a limit on reducing more than 10% of the live tree basal area through forest management in nesting and roosting habitat, in order to avoid degrading high quality nesting/roosting habitat to minimally adequate habitat, and to prevent loss of occupancy (Seamans and Gutierrez 2007).
- Add forest-wide standards and guidelines allowing and encouraging active snag creation in forest areas that otherwise meet the above definition of suitable California Spotted Owl nesting and roosting habitat but are deficient with regard to large snag basal area.
- Recommendations for Improvements to protections of California spotted owl Treatments should be guided by Seamans and Gutierrez (2007) and designed to minimize the probability of

territory abandonment by spotted owls. SFL Coalition Objection to LTBMU Forest Plan, FEIS and Draft ROD 1-21-14 23

Limit restoration and fuels management in protected activity centers (PACs) and home range core areas (HRCAs) to surface and ladder fuels treatments that maintain high quality habitat immediately post-treatment. Adopt a monitoring and adaptive management program that has clear thresholds and triggers to monitor the effects of treatments on owl occupancy and reproduction with an annual review of status.

Complete a scientifically accurate accounting of impacts from the draft plan on spotted owls that discloses the past and current state of PACs and HRCAs and evaluates the potential impacts of future projects.

- From Draft Forest Plan Resolution to Objection SG87. Vegetation treatments in PACs and HRCAs should maintain suitable habitat structure and function following implementation. [Guideline] Suitable habitat, as defined in the FEIS, includes 3M, 3D, 5S, and 5P. These are not suitable habitat types as defined in the current forest plan (revised 2004). The definition of “suitable” should be revised to follow the current forest plan. A distinction should also be made between nesting and foraging habitat. Logging should not be allowed to degrade nesting habitat to foraging habitat. This standard does not address how suitable habitat relates to desired conditions for these habitat areas.
- SG89. Design management activities (e.g. vegetation treatments, recreation or access expansion or improvements) to The characteristics of “connected habitat” are not defined so it is not possible to determine how to maintain connected SFL Coalition Objection to LTBMU Forest Plan, FEIS and Draft ROD 1-21-14 24From Draft Forest Plan Resolution to Objection minimize potential for creating isolated PACs and HRCAs by maintaining habitat connectivity of the PACs/HRCAs with the adjacent forest. [Guideline] habitat.
- Develop specific Spotted owl and Marten marking guidelines (based on principles used for GTR-220 marking (See PSW-GTR-237 Appendix Walsh and North p. 177) and the attached Fisher Marking Guidelines from the Dinkey Collaborative on the Sierra National Forest. The Forest Plan suggests that PSW-GTR-220 is a guiding document (Draft ROD p. R-7). There are complicated prescriptions for increasing forest complexity and emulating natural disturbance regimes in the Sierra Nevada (see North and Keeton 2008).

- Identify a habitat corridor system for marten on the LTBMU in which restoration and fuels management would be limited to the minimum surface and ladder fuels treatments needed to avoid significant fire risk and which would maintain high quality habitat immediately post-treatment.
- The FEIS states plainly that there is a need to revise the LTBMU Forest Plan, so it is clear that Alternative A, which is the existing 1988 LTBMU Forest Plan, is not seriously considered for selection, which leaves the nearly identical Alternatives B and C (essentially one action alternative) to be compared to the straw-man alternative, Alternative D. This is not a reasonable range of alternatives being given full consideration and analysis, especially for a plan that will be in place for at least 15-20 years, because the FEIS does not include an action alternative (for full and complete consideration and analysis) that would institute an active management approach that would result in more active management than Alts. B and C (and A), but would do so in a non-commercial, ecological approach that would focus on actively managing forests, including mature trees, to accomplish ecological goals, but by actively creating habitat structures without commercial logging—i.e., without removing wood commodities (sawtimber or biomass) from the LTBMU (personal use firewood permits would, therefore, be allowed, as this is not wood commodity production). We request that you issue a Supplemental DEIS to fully analyze such an active management non-commercial alternative, and allow full public comment on it. As Hanson et al. (2010) describe, active management is not limited to commercial timber harvest and removal, and includes activities such as snag and downed log creation (in lieu of removal of mature trees, which creates only stumps), invasive weed eradication, logging road decommissioning and re-vegetation, as well as prescribed fire and managed wildland fire. Where thinning occurs, material would be piled and burned, masticated, used for structures on the LTBMU for trails, interpretive structures, or fences, or made available to the public for personal use firewood permits. Such an alternative is fully consistent with a DEIS that claims, “There is no timber program”.
- Under this alternative, there would also be a clear forest-wide standard requiring the LTBMU to maintain viable populations of native wildlife species by maintaining sufficient habitat to ensure the LTBMU’s range-wide share of viable populations of Management Indicator Species (MIS) on the LTBMU national forest planning area, thereby eliminating the potential for active management to reduce ecological resiliency by causing habitat loss or alteration that would lead to the extirpation of native species—a safeguard that Alts. B and C do not include as a forest-wide standard.

There is nothing in the FEIS's description of the key goals of the forest plan revision that would preclude such an alternative—i.e., wood products commodity production (sawtimber or biomass) is not listed as one of the goals. Rather, all key issues/goals are described only in non-commercial terms, e.g., "Watershed Health and Aquatic Ecosystems Issues", "Terrestrial Ecosystem Issues", "Recreation Issues", and "Access and Travel Management Issues".

Moreover, without this sort of non-commercial active ecological management alternative, the FEIS is fundamentally misleading, in further violation of NEPA, given the U.S. Forest Service's Region 5 Fiscal Year 2012 Final Budget Advice and Fiscal Year 2013 Preliminary Budget Assessment, which set quantitative commercial timber harvest volume targets/quotas (in millions of board feet, and acres of mechanical harvest, both) for each national forest in the Sierra Nevada. If the Regional Office is setting timber commodity production levels for each national forest in the Sierra Nevada, any forest plan revision, including the LTBMU, must fully and completely disclose this fact, and its implications for the limitation of non-commodity ecological management options.

- Under this active management non-commercial-logging alternative, relative to Alternatives B, C, A, and D, there would be: a) more acres of invasive weed eradication; b) slightly more acres of fuel reduction in the WUI than Alts. B and C (the 12-inch diameter limit of Alt. D would not apply under this non-commercial alternative—trees larger than 12 inches in diameter could either be girdled or otherwise turned into snags, felled to create large downed log structure, piled and burned, or removed for LTBMU use or personal use firewood permits); c) more acres per year of "forest stand resiliency" work than Alts. B and C (and A and D) through active snag creation and active downed log creation (no upper diameter limit) to manage forest type, structure and diversity while creating important habitat structures upon which benefit native wildlife species; d) equal or greater acres of prescribed fire and managed wildland fire compared to Alts. B and C, but without the restrictions of Alt. D in terms of the size of trees that could be managed prior to fire; e) equal or greater acres of restoration of Spotted Owl PACs and HRCAs compared to Alts. B and C but, again, without using commercial timber harvest as the "restoration" tool (i.e., instead using active snag and downed log creation, which creates essential habitat for Spotted Owls [Verner et al. 1992], as well as prescribed fire); and e) more miles of stream restoration and more acres of SEZ restoration than Alts. B and C (and A and D).
- SG88. Where canopy cover in PACs and HRCAs exceeds desired conditions, maintain current cover unless reduction would improve habitat conditions to meet life history needs of the species or reduce the risk of stand-replacing wildfire. Retain canopy cover to maintain at or

above a minimum of 50% in PACs and 40% in HRCAs, except where less is needed to achieve standard and guide for restoration of PACs/HRCAs. [Guideline] The objective of “restoration” is unclear and potentially allows extensive alteration to sensitive owl habitat. “Risk of stand replacing wildlife” is also undefined and conflicts with reference conditions that indicate high severity fire is within the range of variability that is expected.

- SG90. Allow vegetation treatments in PACs for the purposes of PAC restoration when both of the following conditions apply: a) Surveys for the target species conducted to meet Region 5 protocol demonstrate that reproduction has not occurred within the PAC in at least the previous three years; b) The PAC is not currently occupied; and either i. Desired conditions within the PAC are not being met and conducting treatments would achieve the desired conditions or shorten the time until those conditions would be expected to occur; or ii. Desired conditions are currently met but vegetation treatments are required to maintain desired conditions over the next 15 years. [Standard] Restoration objectives are undefined. There is too little guidance about what actions and over what time frame would be suitable for restoration. This standard combined with SGs 91 and 92 allow unlimited action. This is especially the case since very few of the area within any PAC or HRCA meets the desired conditions, a condition reported to us in the FEIS.