

Appendix F- Scoping Comments Summary

Alder Creek Project

Truckee Ranger District

Three (3) comment letters were received during the 21-day scoping period for the Alder Creek project. Two (2) letters were received after the scoping period had ended. The Interdisciplinary Team reviewed individual comments in these letters and classified them into one of the following four categories:

- **Significant Issues-** Comments with a clear point of dispute with the Proposed Action that is based on some anticipated effect.
- **Non-Significant Issues-** Issues are determined to be non-significant for one or more of the following reasons:
 1. Outside the scope of the proposed action
 2. Already decided by law, regulation, Forest Plan, or other higher level decision
 3. Irrelevant to the decision to be made
 4. Conjectural and not supported by scientific (or factual) evidence
- **Suggested Alternatives**
- **Non-issues** - Comments which do not pose any clear dispute with the proposed action, or merely ask questions.

Significant and Non-Significant Issues

No significant issues were identified by the Interdisciplinary Team. Non-Significant Issues are as follows:

1. *Habitat changes that would result from the Alder Creek project could reduce the marten's range and distribution and lead to local extirpation.*

By nature a relatively uncommon species, American martens are inherently vulnerable to local extirpation and extinction for several reasons, as noted in the Sierra Nevada Framework EIS (USDA Forest Service 2001a, Vol. 3, Chap. 3, part 4.4, pp. 22-23). First, martens have low reproductive potential; second, they have an affinity for dense overhead cover and tend to avoid forest openings; and third, martens have very large home ranges relative to their body size. The marten is closely associated with the structural characteristics of old forests, especially large trees, large snags and down wood, and dense canopy cover. (SNFPC et al. 2004, pp. 41-43). Research has shown that the marten is highly sensitive to forest fragmentation, generally tolerating a landscape that has no greater than 20-25 percent forest openings. (Id., p. 43). Thus, habitat changes that would alter the marten's preferred habitat, such as the changes that would result from the Alder Creek project, could reduce the marten's range and distribution and lead to local extirpation.(FIG, Para. 9)

Non-Significant issue: Conjectural.

Response: The Wildlife BE and EA will analyze in detail the impacts of proposed project activities on potential habitat for the marten. Currently the Alder Creek project area does not contain the structural characteristics of old forests, due to historic logging during the early 1900s, the Donner Ridge Fire in 1960, and more recent salvage logging. The proposed action specifies retention of downed woody material and snags as habitat components for wildlife, in accordance with the standards and guidelines in the 2004 SNFPA FSEIS ROD, page 8, #25 and 26. The Alder Creek project is not expected to reduce the marten's range and distribution and lead to local extirpation, as the project area currently provide only some of the "preferred" habitat components, e.g. dense canopy cover, but lacks other important components described above for this species, e.g. large trees. The purpose and need for the project states that the project is designed to help prevent the premature loss of conifer stands to insects, disease and catastrophic wildfire, through thinning and followup fuels reduction, which will help hasten the development of old forest characteristics. The project is not expected to substantially increase forest openings.

2. Logging on the eastside of the Sierra will preclude recovery options for the fisher. Logging of old growth stands 1 acre or larger could eliminate potential denning and resting sites for fisher.

The (U.S. Fish and Wildlife) Service is also concerned that recovery options for the fisher will be precluded in eastside forests because a landscape spotted owl strategy will not be applied in those areas. Maj and Garon (1994) provide maps of fisher observations from 1961 to 1982 and from 1983 to 1993 which show fisher locations in eastside habitats. The unrestricted reduction in canopy cover and significant reduction of snags and logs on the eastside would reduce potential forest carnivore denning and resting sites, and may preclude further options for the development of a long-term management strategy to protect the fisher. (USDA Fish and Wildlife Service 1999, p. 112; USDI Fish and Wildlife Service 2001, p. 136). (FIG, para. 20a)

The Forest Service should disclose the acreage and location of old growth stands 1 acre or larger that will be logged. Research indicates that these small inclusions of habitat are important for the fisher (USDA Forest Service 2004a, p. 139), and they were protected under the 2001 ROD. Logging of these small but important areas could eliminate potential denning and resting sites for fisher (Barrett 2004), especially given the documented use of numerous resting sites within a particular home range. (SNFPC et al. 2004, p. 30). (FIG, para. 22b)

Non-Significant issue: Conjectural.

Response: The Alder Creek project area lacks old growth stands 1 acre or larger and the associated habitat described for fisher in the comment above, due to historic logging, subsequent salvage sales, and the Donner Ridge Fire. How these habitat components will develop over time, as a result of project activities, will be analyzed in the Wildlife BE and in the EA.

The Wildlife BE and EA will also analyze in detail the direct, indirect, and cumulative impacts of proposed project activities on the fisher. The Alder Creek Project proposed action has been designed to be consistent with Standards and Guidelines of the Tahoe National Forest LRMP as amended by the SNFPA FSEIS ROD (2004) on page 51 and 52 (snags and downed woody material). The IDT adhered to these Standards and Guidelines when developing project specific standard management requirements and mitigation measures to protect National Forest resources which include the Pacific fisher. The Pacific fisher is designated as a Regional Foresters' Sensitive Species in Region 5. The State of California and the USDI Fish and Wildlife Service classifies the fisher as a "species of concern." The USFWS received petitions to list western populations of the fisher under the Endangered Species Act in 1990 and 1994. These petitions were considered as having "insufficient scientific information" to recommend listing. On December 2000, the Pacific fisher was again petitioned for listing as a distinct population segment as endangered, and to designate critical habitat based on new information detailing the fisher's fragmented distribution in this region. On July 3, 2003, USFWS announced that a 90-day petition finding was completed where substantial information indicated that the West coast population (Klamath Mountains, North Coast Ranges, and southern Sierra Nevada) of the fisher may be a distinct population segment for which listing may be warranted. The Pacific fisher will undergo a 12-month review to determine whether or not to propose the fisher for under the Endangered Species Act. The need for critical habitat designation will be addressed if the 12-month review determines that listing is warranted.

No fishers were detected during the baited camera survey effort from 1998-2003 on 136 camera stations that covered eastside pine and eastside mixed conifer habitat. This effort surveyed for carnivores for over 3,808 survey days and nights. Numerous species, such as gray fox, coyote, bobcat, mountain lion, spotted skunk, bear, marten, long tailed weasel, mice, squirrels, birds, and even domestic dogs were detected. It is believed that fisher would have been detected during this survey effort if fisher were present on the eastside of the Tahoe National Forest.

Within the Alder Creek analysis area, the eastside mixed conifer forest type (potentially suitable fisher habitat) ranges in elevation from approximately 6,000 feet to approximately 6,600 feet. It is unlikely that fisher are present in the Alder project area for the following reasons: the project area is generally above the expected elevational range for fisher (5000 feet), and lies east of the Sierra Crest, no fisher have been detected on the Sierraville or Truckee Ranger Districts (through survey efforts and incidental sightings), and there is some uncertainty as to whether historic samples were identified properly. Based on surveys and lack of historical information, it is not believed Pacific fishers inhabit areas within or adjacent to proposed treatment units.

Current available information indicates there is a large gap in the distribution of fisher from the Lassen National Forest to Yosemite National Park. It is unknown why this gap may be present, but if fishers were to be present or re-colonized within the Tahoe National Forest, it is not expected this would occur east of the Sierra Crest because habitat on the westside of the Sierra Crest tends to occur lower

in elevation, and have a higher percentage of preferred habitat components for fisher.

3. *The TDHS agree with the need for aspen stand restoration. Based on research the group has done, the TDHS believes that the Truckee River beavers did not historically occupy the area prior to the 1940s, and have since caused dramatic changes to the water table, thereby impacting lodgepole pines, aspens, brook trout (TDHS, Para 9-11). The only way to restore the aspen stands to their historical pre 1980 condition is to remove the beaver population and maintain a zero population. (TDHS, Para. 12)*

Non-Significant issue:

The Forest Service does not manage wildlife populations. The California Department of Fish and Game has the authority to manage wildlife populations, and even permits hunting of beaver. Management of wildlife populations is outside scope of our authority, and whether or not to permanently eliminate this species from the project area is outside the scope of this project. The FS only manages habitat for wildlife species. The Interdisciplinary Team recognizes the risk to aspen development from beavers, which is why the proposed action proposes protective measures, as needed. According to the District Wildlife Biologist, there is some controversy over whether or not beavers are native to the Truckee River Basin. Some historic records indicate that they were present historically.

Suggested Alternatives

4. *If considering borax applications as part of the proposed project, the FS should restrict borax use to only where most needed, thus reducing amounts, acreage, cost and environmental risks. Specific suggestions include applying borax exclusively to: stumps of a diameter greater than 18 inches, and to the most susceptible species, e.g., only true firs or only to pines within 1 mile of an infection center (CATs, Para. 12, 13, 16, 17, 18 and 19)*
5. *The Forest should objectively evaluate non-pesticide alternatives for control of annosus root rot disease as part of the NEPA analysis for this project: (CATs, Para. 20)*
 - a. *The Forest should consider cutting/thinning only when reproductive basidiospore populations in the air are at their lowest. (cold winter or hot dry summer months) The Forest should only cut in sensitive areas (those near annosus infection centers) during these times and thus eliminate the need for borax applications and reduce the potential spread of annosus disease. (CATs, Para. 21)*

- b. CATs suggests that removing injured trees in high-risk areas is effective in reducing the risk of annosus spread, while allowing the Forest to produce commercial timber at the same time. **(CATs, Para. 22)**
 - c. The Forest should utilize prescribed burns in an attempt to eliminate *Heterobasidion annosum* in the project area, e.g. two pre-thin burns (one at least 6 months before thinning), and one or more post-thin burns. **(CATs, Para. 23)**
 - d. The second annosus eradication and reduction method is simply mechanically removing and burning stumps and attached roots in already infested sites (Schmidt et al 2000., Ammon and Patel 2000, Goheen and Otrosina 1998). This will allow regeneration of Forests by minimizing the possibility of new regeneration contacting infected roots (Goheen and Otrosina 1998). This can be followed by cultural control, replanting with desired shade intolerant species. **(CATs, Para. 24)**
 - e. *Phlebiopsis gigantea*, an aggressive, highly competitive fungus is recommended as a borax alternative, as it colonizes stumps to the exclusion of the annosum root rot fungus (Annesi et al. 2005; Pratt et al. 2000; Ammon and Patel 2000; Pratt 1999; Flip and Morrison 1998; Rishbeth 1963). **(CATs, Para. 25)**
 - f. The Forest needs to analyze annosus disease prevention alternatives for this project including cultural controls. For example species manipulation, replanting and retaining more resistant species, is a great way to prevent annosum disease spread (Schmitt et al 2000, Goheen and Otrosina 1998). **(CATs, Para. 26)**
6. *The Forest Service should consider one or more alternatives to the proposed Project that limit the reduction of canopy closure and basal area to ensure that high quality nesting and foraging habitat is associated with specific territories. (FIG, para. 25c)*
 7. *The EA must consider all reasonable alternatives, including alternatives that would maintain canopy cover at 50 percent or greater and protect trees of 20" dbh or greater. Such alternatives are "reasonable" under NEPA because they would reduce adverse impacts to imperiled species like the California spotted owl and American marten while addressing the Forest Service's fire and fuels objectives (FIG, para. 32a, 35).*
 8. *The EA should analyze in detail an alternative that implements the 2001 ROD (FIG, para. 36, 37, 38, 39 40).*
 9. *Prescribe preparations for (aspen) regeneration that include removal of competing conifers, but only up to a maximum dbh of 20 inches. Trees proposed for removal up to 30 inches may be approved as exceptions based on effectiveness in releasing Aspens. No conifers larger than 30 inches should be removed under any condition. Set a maximum acreage not to exceed 10 acres. (FIG, para 52).*

Non-Issues

10. *CATs commends the Truckee Ranger District and the Tahoe National Forest (hereafter referred to collectively as “the Forest”) for its recognition of hazardous fuels and fuels reduction treatment efforts. We also applaud the Forest for its commitment towards herbicide-free vegetation management for this project. However, we are concerned with the potential of excessive and unnecessary pesticide (borax) applications. (CATs, Para. 2)*

Non-issue: No clear dispute with Proposed Action (PA), anticipated effects not clear.

Response: Application of borax (tradename Sporax®) is proposed only where necessary to prevent the spread of annosus root disease, at rates permitted on the Sporax® label. Sporax® will be only be applied to cut stumps greater than or equal to 14 inches stump diameter.

11. *Application of any pesticide is controversial and comes with inherent hazards and risks. These potential effects and impacts must be accounted for, analyzed, and alternatives evaluated for potential environmental effects as part of the NEPA process. The use of borax is no different.(CATs, Para. 3)*

Non-issue: No clear dispute with PA, comments center on procedural aspects of NEPA.

Response: As part of the NEPA process, the environmental analysis for the Alder Creek Project will analyze the potential effects and impacts of each alternative, including the proposed use of borax on human health and safety and the environment. Through project design, including resource protection measures potential hazards to human health and safety and the environment from borax use will be minimized.

12. *The proposed action (scoping document) states that cut stumps of all conifer species greater than or equal to 14 inches in diameter will be treated with borax to prevent the spread of annosus root disease (pg. 1). CATs first questions when reading this sentence then is, do all stumps, of all conifer species, of all treatment units, really ‘need’ borax treatments? (CATs, Para. 4)*

Non-issue: No dispute with PA; question are asked which can be answered now.

Response: Based on the recommendation of a forest pathologist from the USFS Pacific Southwest Research Station, cut stumps of all conifer species, including ponderosa pine, Jeffrey pine, sugar pine, lodgepole pine and white fir greater than or equal to 14 inches stump diameter will be treated with borax, as a preventative measure to reduce the spread of the pathogen *Heterobasidion annosum* to uninfected stumps. Application of borax is not proposed on cut stumps less than 14

inches stump diameter. Approximately 515 acres of the 778 acres proposed for thinning treatment will be treated with borax.

13. *Much information is missing at this point to justify the proposed borax (pesticide) applications as it does not discuss where the disease (annosus root rot) is actually present, which annosus strains are in where, alternative annosus control methods evaluated, supporting literature for borax application criteria, nor project specific toxicological risk analysis. If borax applications are to be part of the proposed actions, then CATs expects the Forest to provide all this information, including a project specific risk analysis and evaluation of human health safety and environmental impacts within project NEPA documentation. We also expect to see non-pesticide annosus root disease alternatives evaluated. The Forest must disclose the criteria that define borax applications and application rates (where, when, why, and how much), and limit considerations of any potential pesticide use to only where absolutely necessary. (CATs, Para. 5)*

Non-Issue: No clear dispute with PA, or disclosure of anticipated adverse.

Response: A forest pathologist identified evidence of *Heterobasidion annosum* during a field review of the Alder Creek project area. The pathogen was found in a decaying white fir stump. Regional policy in the USFS Pacific Southwest Region recommend that in the eastside that all cut stumps greater than or equal to 14 inches stump diameter be treated with borax to prevent the spread of annosus root disease in the eastside of the Sierras. This recommendation is based on annosus root disease research in the eastside pine type, including the Tahoe National Forest, which finds the pathogen endemic and a serious pest. The Alder Creek Project proposed action states that borax would be applied in Units 1a, 1c, 2a, 2b, 3, 4, 5, 6a, 6b, 8b, 11 and 12 to minimize the spread of annosus root disease caused by the fungus *Heterobasidion annosum* within 4 hours of felling, at a rate of 1 pound per 50 square feet of stump surface (approximately 1 pound/acre on average, though up to 2 pounds/acre could occur, depending on the number and size of stumps). Borax treatment is only proposed on 515 of the 778 acres proposed for thinning. The remaining acres would not be treated with borax, as cut trees in these units would be less than 14 inches stump diameter, and treatment would not be necessary, per Region 5 direction. Although annosus root disease is endemic in the project area, past management activities, including fire suppression, have resulted in unnaturally high stocking, which increases conifer susceptibility to this disease. The risks to human health and safety and the environment from stump treatment with borax will be evaluated and disclosed in the EA.

14. *What time of year and under what weather conditions will borax be applied? Are there times that borax use would not be needed (like hot dry times)? Are there weather conditions that would prohibit the use of borax (like rainy or wet conditions causing it to easily wash off stumps)? All application criteria and safety designs must be included and mentioned. What safety measures are being taken to protect workers, the public, and resident plants and wildlife? What non-target*

species might be impacted including sensitive, rare, and listed species (like the ones in unit 6a which is slated for borax treatments)? (CATs, Para. 6)

Non-issue: No clear dispute over PA; comment asks questions, which can be answered now.

Response: Borax would be applied during harvest activities, which could take place during any season of the year. With the exception of an occasional intense summer thunderstorms, generally harvest activities do not take place during wet conditions that would cause borax to easily wash off stumps. All mitigation measures to protect human health and safety and the environment will be disclosed in the NEPA document. According to the Proposed Action on page 4, Item #5, borax handling, storage and application would adhere to federal and state application regulations, as well as the requirements on the product label. In addition, other measures that will be taken to protect workers and the public are Best Management Practices, which include spill contingency planning (Proposed Action, page 6, Item 15 a).

Proposed safety measures to protect resident plants and wildlife include: strict adherence to label instructions, and implementation of 25 foot no treatment buffers along live streams and riparian vegetation, whichever is greater (Proposed Action, page 7, Item #15b). Potential habitat for the sensitive species *Meesia uliginosa* in Unit 6a would be flagged and avoided during project activities, and borax would not be applied within this area (Proposed Action, Page 7, Item 23).

15. *What are the alternatives? Does the Forest really need to use borax? What other management methods and treatment options have been considered? What are the cumulative impacts of using borax in this watershed? This is all information that must be included for adequate environmental analysis under NEPA. (CATs, Para. 7)*

Non-Issue: No clear dispute over the PA; comment asks questions, which can be answered now.

Response: The Interdisciplinary Team will review the scoping comments received during the scoping period. Any issues identified will be used to *develop mitigation measures, or to formulate alternatives to the proposed action*. According to NEPA, the environmental analysis must consider an alternative that proposes no action. Borax treatment is proposed to improve forest health, as described in the Purpose and Need on page 9, Item #1. During the environmental analysis, the IDT will consider other management methods and treatment options to borax, and will assess the cumulative impacts of using borax in the project area watersheds.

16. *Borax Application Criteria*

CATs believes that borax applications may be unnecessary for this project to be successful. While CATs would prefer that no pesticides are used as part of the proposed actions, less toxic chemicals are always better than more. If the Forest decides to continue with including borax within the proposed actions then it must

clearly state within the NEPA documentation the supporting rational with which it has determined the criteria and rate of borax application for the proposed actions. The Forest should consider alternatives that include lesser borax amounts (less total pounds applied over less acreage on less stumps). **(CATs, Para. 9)**

Non-issue: No clear dispute with PA, or disclosure of anticipated adverse effects. Comments suggest the need to consider an alternative that includes a lesser amount of borax, i.e. less total pounds applied, on fewer stumps, over fewer acres.

Response: The EA will document the need for borax use. The proposed action states the application rates of 1 lb per 50 square feet of stump surface on average, which equates to approximately 1 pound per acre, though up to 2 pounds/acre could occur, depending on the number and size of cut stumps. By design, the ID team has attempted to minimize the use of borax in the proposed action by only applying borax to stumps greater than or equal to 14 inches, although treatment of stumps less than this size is practiced in Region 5. Borax application is not prescribed in every treatment unit. As proposed, borax would be applied on approximately 515 acres, or 66% of the treatment units. Also a no treatment buffer of 25' from live streams or riparian vegetation would further reduce the actual acres treated.

17. *What species of trees are in the project area? What strains of annosus exist in the project area? The S strain of annosus only infects firs, and the P strain only infects pines. Since there is no cross infection (e.g. the P strain will not infect live firs and vice versa) there is no need to be applying borax to any species other than those for which that annosus strain is present in the project area (see discussion below for citations). (CATs, Para. 10)*

Non-issue-Commenter asks questions and speculates that borax treatment is not needed in the project area on certain species..

Response: The project area contains the following conifer species: ponderosa pine, Jeffrey pine, white fir, lodgepole pine, incense cedar and sugar pine. The project area does not contain homogenous stands of either pine or true fir. Though the units north of the Alder Creek Road are predominantly pine, they also consist of varying amounts of white fir, sugar pine and incense cedar (stand exam data in project record). South of Alder Creek (Units 1a and 6a) white fir is predominant, with a minor component of pine in varying amounts. Though white firs are predominant and well adapted to some areas, e.g. north facing slopes, the minor amounts of pine on these sites can be attributed to early logging practices, which selectively removed pine. In such areas, borax use would help protect both pines and white fir. The Alder Creek project proposes to manage for all conifer species, and utilize borax to protect a mix of species from annosus root disease. The proposed action would favor certain conifer species on a site specific basis, e.g. thinning marking guidelines would include favoring pine on drier sites, or favoring fir, where pines are in poor health due to insect activity, however this method alone is not sufficient to adequately reduce the potential spread of the disease to uninfected stumps. Although there is generally no cross infection between pines and fir, borax treatment is prescribed for all conifer species, since a mixed of conifer

species occur within the project area, and because there is evidence that both annosus strains occur within or in the vicinity of the project area. Additionally, research conducted in the eastside pine type of the Pacific Southwest Region including sites on the Tahoe National Forest, found the pathogen *Heterobasidion annosum* endemic and a serious pest affecting both pines and true fir.

18. *Often the Forest Service is trying to change stand species composition from shade tolerant species (true fir) to shade intolerant species (pines) with forest health projects such as this one (or at least that is the justification provide for the timber harvesting of lots of big old trees). Then why not just let the annosus help do this and only apply borax to large pine stumps when there is a P strain annosus infection center within one mile (see below discussion for supporting citations) and let the annosus clear out the white fir for you? Borax is not free and unnecessarily applying it is a waste of tax payer money, as well as other creating other issues (CATs, Para. 11).*

Non-Issue: No clear dispute with the PA; comment asks a question, which can be answered now.

Response: The purpose and need for the project is neither to change species composition from true fir to pine, nor to provide for the timber harvesting of lots of big old trees. The project proposes to thin overstocked stands to improve the health and vigor of both fir and pines, and restore some of the aspens stands that are at high risk of being lost. The project proposes to apply borax only where necessary to reduce the spread of annosus root disease, as recommended by a forest pathologist from the PSW Research Station who evaluated the project area. Application of borax to freshly cut conifer stumps is a highly effective and relatively inexpensive treatment method to reduce the spread of annosus root disease. The Proposed Action does not propose to use borax unnecessarily, and proposes borax treatment only in certain units, as identified on page 1, Table 1.1, and only on stumps greater than or equal to 14 inches, page 1, Item 1c.

19. *Just stating that borax applications are recommended by the regional office does not constitute adequate justification or information disclosure as required by NEPA. Supporting literature must support application criteria and rates. The Forest must disclose all relevant scientific views within NEPA documentation for decision analysis and evaluation of options. (CATs, Para. 14)*

Non-issue: No clear dispute with the PA.

Response: The NEPA document will discuss the rationale, include supporting literature, and disclose relevant scientific views, and management options for the proposed use of borax to reduce the spread of annosus root disease.

20. *The disease travels very slowly from root to root spread, at a rate of between 0.5 and 1.5 meters per year (Schmitt et al 2000, Goheen and Otrosina 1998). Hence the*

primary concern in most cases where annosus root disease is a concern is spore travel and new infection centers. While the spores can travel far, Dekker-Robertson (2005) reports that “pine stumps should only be treated if they are within one mile of an infected pine stand. The Forest should only be considering applying borax on pine stumps if the pine stands are within one mile of pine P strain annosus infection centers. Are there infection centers within the project area? At what proximity? In which treatment units? The Forest must disclose where infection centers are, what species are infected, what strains of annosus are present and only consider applying borax within one mile of infection centers, and then only on species that are infected. (CATs, Para. 15)

Non-issue: No clear dispute with the PA, or disclosure of anticipated adverse effects. Comment also includes questions, which can be answered now.

Response: As stated previously, there is sufficient evidence of annosus root disease is in the project area, to warrant borax application, as a preventive measures to reduce the spread of this disease. Proposed borax use is consistent with USFS Region 5 policy, which recommends borax treatment of cut stumps to reduce the spread of annosus root disease in the eastside pine type.

21. *Borax treatment is not effective in areas where stumps are already infected (Schmitt et al 2000, Ammon and Patel 2000). (CATs, Para. 27)*

Non-Issue: No clear dispute with PA.

Response: Borax application is prescribed as a preventative measure to minimize spread to stumps that are not infected.

22. *Borax Human Health Hazards*

Studies and toxicity information on borax, as discussed below, raise issues of potential human health concerns that must be addressed as part of this project. Studies have prompted concern that borax is a human reproductive toxin (USFS 1995). The US Forest Service (1995) reports that studies indicate chronic exposure to borax may cause reproductive damage and infertility. In the US EPA’s Toxicological Review of Boron and Compounds (2004) the developing fetus of mammals is considered one of the most sensitive targets. The other most sensitive target is the testes of males, and adverse effects include testicular degeneration (US EPA 2004; USFS 2003, Evaluation of Human and Ecological Risk For Borax Stump Treatments). The Forest must disclosure this information within the EA and evaluate this risk in as part of action alternatives including borax applications. **(CATs, Para. 28 and 29)**

Non-issue: No clear dispute with the PA, or disclosure of anticipated adverse effects.

Response: The environmental analysis will analyze the risks of borax use to human health and safety.

23. *Borax has been placed in Toxicity Category I for acute eye irritation effects (US EPA 1993, RED Facts; USFS, Fact Sheet 1995). Borax is rapidly absorbed through damaged skin (USFS 1995). What precautions will the Forest be taking to protect applicators and the public from these dangers? Why is this information not disclosed or analyzed within the EA? (CATs, Para. 30)*

Non-issue: No clear disagreement with PA; questions are asked which can be answered now.

Response: All applicable state and federal pesticide application regulations for safe use, and the requirements on the Sporax label use will be followed during project activities, including proper training, available medical aid, wash water, and use of personal protective equipment as stated in the PA on page 4, Item #5. Required PPE includes eye protection. CATs questions the content of a document that has yet to be written, and is probably referring to another project. The proposed action contains precautions to protect applicators and the public from borax use. The EA will discuss the impacts of proposed borax use on human health and safety.

24. *The US EPA warns of the potential for dermal and inhalation exposure among applicators and people reentering treated areas (US EPA 1993). The Worker Protection Standard (WPS) for Agricultural Pesticides (40 CFR 156 and 170) established an interim restricted-entry interval (REI) of 12 hours for boric acid and its sodium salts (US EPA 1993). Will the Forest be imposing any such safety requirements? (CATs, Para. 31)*

Non-issue: No clear dispute with the PA; a question is asked, which can be answered now.

Response: Workers applying borax are required by contract to adhere to all applicable state and federal regulations for the safe use of pesticides, including product label requirements, as described in the response to Comment 17. There are no label requirements that impose a restricted-entry interval. Worker Protection Standards for Agricultural Pesticides do not apply, because proposed borax treatment of cut stumps is not an agricultural use.

25. *Sporax has a signal word of danger and the label describes the hazards to humans and domestic animals as follows: "DANGER. Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing" (Wilbur-Ellis, Sporax label). Again, the Forest must disclose potential hazards associated with pesticide applications. (CATs, Para. 32)*

Non-issue: No clear dispute with the PA.

Response: The environmental analysis will analyze the potential hazards associated with borax use to human health and safety and the environment.

26. *The green consumer website reports “The most significant toxicity concerns for borax center around ingestion poisoning and its reproductive toxicity through ingestion...the California US EPA is currently evaluating it [borax] for possible consideration as a reproductive toxin under Proposition 65.” The Sporax material safety data sheet warns, “Do not ingest. Wash thoroughly before eating, drinking or smoking” (Wilbur-Ellis). (CATs, Para. 33)*

Non-issue: No clear dispute with the PA.

Response: Boric acid and its sodium salts were proposed for listing as a reproductive toxicant under Proposition 65 in a public notice issued by the State of California in August 1997. According to the California Office of Environmental Health Hazard Assessment (OEHHA), the August 1997 listing proposal was subsequently dropped based on a decision that the regulatory criteria for listing had not been met. More recently, OEHHA is reconsidering this decision, and may issue a new proposal to list borax (Oshita, 2005). As of July 2005, boric acid has not been entered onto the Proposition 65 list. Sporax® label requirements will be followed to ensure safe application, as discussed under Comments 16, 17 and 18.

27. *CATs is aware of incidences where borax has been spilled into adjacent stream systems at the staging areas. At a minimum, the US Forest Service must develop safety protocols for mixing and staging areas and include these within the EIS. The protocols should include identification of areas suitable for staging and mixing that pose little threat to stream systems in the case of an accidental spill. Workers need to be sufficiently trained and experienced in safety procedures for mixing and transporting borax, as well as first-aid response, in the event of accidental contact or exposure. First aid materials must be readily available at all project sites, and include access to running water for flushing borax particles. This information must be described. (CATs, Para. 34)*

Non-issue: No clear dispute with the PA.

Response: The Sporax product requires no mixing. The proposed action contains resource protection measures, including Best Management Practices (BMPs), which restrict storage and disposal of containers, and require spill contingency planning. Applicators must adhere to state and federal pesticide regulations for safe use, and product label requirements, as described in the PA on page 4, Item #5.

28. *Borax Potential Environmental Effects*

Studies and toxicity information on borax, as discussed below, raise issues of potential ecological concerns that must be addressed as part of this project. Borax does not naturally occur in the forest and the Forest’s proposed application of 515 to 1030 pounds of this salt in 515 acres must be evaluated for potentially significant impacts. (CATs, Para. 35)

Borax is generally active in soils and it remains unchanged in the soil for one year or more. High rainfall conditions can cause borax to leach rapidly and soil microorganisms do not break it down. Borax is partially soluble in water (USFS

1995). The US Forest Service (1995) warns not to apply directly to water, or to areas where surface water is present and not to contaminate water when disposing of equipment washwaters or rinsate. While boron salts have been observed to occur naturally in most unpolluted waterways, some areas have boron occurring in concentrations shown to be toxic to plants (US EPA 1993). What precautions will the Forest be taking to keep borax out of water sources? What are the potential impacts to non-targeted vegetation and aquatic species? **(CATs, Para. 36)**

Non-issues: No clear dispute with the PA, or disclosure of anticipated adverse effects; commenter also asks questions, which can be answered now.

Response: The EA will analyze and disclose the potential impacts of proposed borax application on human health and safety and the environment, including non-target vegetation and aquatic species. The proposed action does not propose to apply borax directly to water. Resource protection measures that will mitigate the potential for borax to enter water sources include: no borax treatment buffers within 25 feet of live streams and riparian vegetation, whichever is greater; strict adherence to federal and state pesticide regulations and Sporax label requirements; implementation of Best Management Practices for pesticide use. The project area does not typically experience high rainfall conditions that can cause borax to leach rapidly. A provision has been added to the proposed action, in which Sporax® would not be applied during periods of sustained rain (Proposed Action #15c).

29. *Borax may be toxic to many essential soil microorganisms at high levels (USFS 1995) and thus may adversely affect nutrient cycling functions within the ecosystem. The EA should contain such information and evaluation of these effects. This could mean major long-term changes in forest biodiversity from the proposed actions, especially at the extreme proposed application rates and acreage. (CATs, Para. 37)*

Borax's primary breakdown product in soils is boron. While boron is an essential nutrient for plants, high levels of borax will kill vegetation and thus it can be used as a nonselective herbicide (USFS 1995). The Forest Service reports that in high concentrations borax is "lethal to plants." It is also known to bio-accumulate in plants (Phelps et al. undated). The Sporax label reinforces this concern as it states, "Borax carelessly spilled or applied to cropland or growing plants – including trees or shrubs – may kill or seriously retard plant growth" (Wilbur-Ellis). These potential impacts must be analyzed and evaluated if borax is to remain part of the proposed actions. **(CATs, Para. 38)**

Non-issue: No clear dispute with the PA, or disclosure of anticipated adverse effects.

Response: The environmental analysis will consider potential impacts of borax use on soil microorganisms and non-target plants. Borax will be applied to cut stumps only, not to soil or plants. Resource protection measures will be prescribed to minimize impacts to plants, including, no treatment buffers and a project spill plan, as described in the PA on pages 7, #23, and page 6, #15.

30. *The Forest Service’s borax fact sheet (1995) warns “Borax may be a hazard to endangered plant species if it is applied to areas where they live” when applied as a forest fungicide on stumps. Also borax’s noncrop herbicidal use may harm endangered or threatened plants. Therefore the US EPA is requiring three phytotoxicity studies (regarding seed germination, seedling emergence and vegetative vigor) to assess these risks (US EPA 1993). Are there any endangered, threatened, or sensitive plant species with potential habitat in the project area where borax applications will be taking place? How will borax applications affect both habitat and populations? (CATs, Para. 39)*

Non-issue: No clear disagreement with PA; questions asked, which can be answered now.

Response: The project area does not contain known occurrences of T & E plant species. There is a known occurrence of the sensitive species *Meesia uliginosa* in Unit 6b. This species is associated with riparian habitat, and would be *protected from borax treatment by a 25 foot no treatment buffer. The occurrence would be flagged and avoided. The EA will analyze and disclose the potential impacts to Meesia uliginosa and its habitat.*

31. *Borax is used as an insecticide and “relatively high concentrations of boron compounds are toxic to insects, even when used in forests (USFS 1995). What about the impact of the proposed borax applications to beneficial insects and pollinators? What impacts could this have of biodiversity and ecosystem functioning? (CATs, Para. 40)*

Non-issue: No clear disagreement with PA; questions asked, which can be answered now.

Response: The EA will analyze and disclose the impacts of proposed borax use on insects, and the ecosystem.

32. *CATs wonders what kind of impacts borax is having on invasive plants and noxious weeds? Could borax be providing an additional disturbance and clearing space for weed proliferation? Is borax’s fertilizing properties providing a soil medium friendlier for exotics than native plant species? (CATs, Para. 41)*

Non-issue: No clear disagreement with PA; questions asked, which can be answered now.

Response: As described in the response to Comment 22, borax application will be directed to the stumps of cut conifers, not to vegetation or the soil. Any spilled material will be removed according to the spill contingency plan. The potential impact of borax use on the spread of noxious weeds and invasive exotic plants will be addressed in the EA.

33. *While there are no studies investigating the impacts of borax on amphibians, CATs is concerned that this salt, which remains active for a year in soils, and does not*

naturally occur in forests, may be having major impacts on amphibian populations. Amphibians, while aquatic during reproductive and other times, also are terrestrial and travel across the land. Amphibians are especially sensitive to chemicals and are believed to be useful indicator species within forest ecosystems. Borax salts do not naturally occur within forest settings and amphibian populations have been quickly declining within forest systems. What impact on amphibian populations is occurring from the current widespread application of borax in our public forests? What potential effects could borax applications be having on sensitive amphibians within the project area? This should be included in EA analyses. (CATs, Para. 42)

Non-issue: No clear disagreement with PA; questions asked.

Response: The environmental analysis will analyze the potential impacts of borax use on sensitive amphibians in the project area.

34. *The Forest has a responsibility to answer these questions and provide analysis and comparative evaluation of borax impacts and between different annosus disease control methods.*

Conclusion

CATs supports reduction of hazardous fuels and work to promote forest health. Yet we do not support the unnecessary and excessive applications of the pesticides (including even borax). The Forest has a responsibility to answer the questions raised above and provide analysis and comparative evaluation of borax effects and impacts and between different alternative annosus disease control methods within project NEPA analyses and documents. This should include a project specific risk analysis, annosus control alternatives section, and detailed information on the criteria determining potential borax applications. Remember, less pesticides are better than more, even with relatively benign ones. (CATs, Para. 43 and 44)

Non-issues: No clear disagreement with PA.

Response: The environmental analysis will consider both borax and non-borax annosus control alternatives, and the criteria for determining borax use. Though a project specific risk assessment is not required by NEPA or the Forest Service manual/handbooks when using borax, the IDT will analyze the risks to human health and safety and the environment from proposed use of borax, using existing risk assessments and literature.

Description of Project

35. *The Forest Service should provide a clear and detailed description of the project, including the nature, intensity, and extent of planned logging by unit. [Steve Benner, Forest Issues Group (FIG), para. 2]*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The Alder Creek proposed action contains a detailed description of the proposed project including harvest activities by unit. Further details including the rationale for silvicultural treatment will be disclosed in the timber marking guidelines in the project record.

36. *With respect to size of trees that will be removed, the Forest Service should identify the maximum tree diameter limit that will be applied or is anticipated within each treatment unit, based upon the applicable basal area retention standard. The Forest Service should provide the underlying data and modeling assumptions and methodology that supports the diameter limit. In addition, the Forest Service should provide information on the number of medium and large (20" dbh or greater) trees that will be removed within the treated units, and the size of those trees. In stands with few trees above 30" dbh, the Forest Service must present a detailed explanation of how the proposed harvest will retain habitat in the short and long term for species requiring medium and large trees and dense canopy cover and provide for future recruitment of large snags and large downed woody material. (FIG, para. 2a)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The Proposed Action identifies the anticipated maximum diameter limit of trees to be removed during treatment, as 29.9" dbh in thinning units and 10" in thinning/release units (Table 1.1, Summary of Proposed Silvicultural Treatment and Method by Acres on page 1). Silvicultural prescriptions, including maximum diameter limits, and the stand exam data upon which they are based will be included in the project record. Information on the approximate number and size of trees 20" dbh or larger to be retained within treatment units will also be included. The Wildlife BE and EA will analyze the effects of proposed harvest on habitat in the short and long term for species requiring medium and large trees and dense canopy cover, and on future recruitment of large snags and large, downed, woody material.

37. *The EA should disclose whether any trees in excess of 30" dbh will be removed and, if so, should explain the necessity for such logging. (USDA Forest 2004a, p. 50). (FIG, para. 2b)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The Proposed Action states that trees in excess of 30" dbh will only be removed to provide for equipment operability and safety on page 1, #1a. Conifer removal will comply with the standards and guidelines in the 2004 SNFPA FSEIS ROD, p. 50, #6. During contract administration, removal of trees ≥ 30 inches DBH must be approved by the Forest Service representative on site. The decision to remove such trees does not rest with the contractor. Even though trees ≥ 30 inches are sometimes removed for operability, such as for landings or skid trails or roads it is a much rarer occurrence than implied in this comment. One of the primary reasons that Forest Service contract administrators closely monitor contract implementation is to ensure that the project objectives and the applicable standards and guidelines are met. The Forest Service has an ongoing program of sale administrator certification and monitoring to ensure that contracts are being administered properly and resource protection measure are being successfully implemented.

38. *The Forest Service should disclose the canopy cover and basal area limit that will be applied within each treatment unit and the amount by which canopy cover will be reduced within each unit, and if less than 50% explain why the 50% standard cannot be met, as required by the 2004 ROD. (USDA Forest Service 2004a pp. 50-51) (FIG, para. 2c)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The 2004 SNFPA FSEIS ROD provides the guidance for mechanical thinning treatments on the eastside pine type on page 51, #8.

According to the ROD on page 51, projects in the eastside pine type have no canopy cover retention standards and guidelines. However, the ROD does specify that outside defense zones, projects in the eastside pine type are to retain 30% of the existing basal area generally comprised of the largest trees. Proposed silvicultural treatments comply with these standards and guidelines. The EA and supporting silvicultural information in the project file will disclose the approximate canopy closure that will be retained following thinning from below based on desired tree spacing.

39. *The Forest Service should identify snag and down wood retention levels as directed in the 2004 ROD (USDA Forest Service 2004a, p. 51) and the basis for such standards. (FIG, para. 2d)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: Snags and down woody material retention levels described in the Proposed Action on page 8, #25 and #26, comply with the 2004 ROD Standards and Guidelines for Snags and Down Woody Material on page 51.

40. *The Forest Service should specifically identify any logging proposed for purposes other than fuels reduction (e.g., reducing stand density, salvage, insect and disease), including the planned acreage of such logging, the specific units in which such logging will occur, the rationale for such treatments. If the project involves reducing stand density to address forest health concerns, the Forest Service should identify the objective criteria used to select the trees removed to meet this objective. The project should identify the specific contribution of fuels reduction treatments to the decreased risk of insect and disease problems related to stand density concerns. (FIG, para. 2e)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The Purpose and Need on page 9 identifies the need to thin overstocked stands in the project area to help improve conifer health. Silvicultural prescriptions, including timber marking guidelines will be included in the project record. Silvicultural and fuels reduction treatments are summarized by stand in the Proposed Action #1 and #2 on pages 1 and 2. Proposed thinning is consistent with fuels management objectives in the 2004 SNFPA FSEIS ROD for WUI defense and

threat zones. Reducing conifer stand density through thinning is designed to increase conifer growth and vigor, thereby reducing the further spread of insects and disease, while removal of hazardous ladder fuels would help reduce the potential for a crown fire, in the event of a wildfire. The Fuels Report will predict the impacts of proposed activities on fire behavior. The proposed action also proposes conifer removal to restore aspen stands, and describes the rationale for treatment .

41. *The Forest Service should identify the acreage and type of logging by land allocation, including (where applicable) old forest emphasis area, threat zone of the wildland urban intermix (“WUI”), defense zone of the WUI, protected activity centers (“PACs”), and owl home range core areas (“HRCAs”). The EA should also disclose and analyze the extent to which the project will log within other relevant land designations, such as areas of concern (“AOCs”) for the California spotted owl as identified by Verner et al. (1992) and habitat management areas for forest carnivores in the Tahoe LRMP. The Project appears to log with AOC 3 and within the Tahoe Forest carnivore network. The EA should include maps that overlay the project boundaries with these land allocations and ecologically significant land designations. (FIG, para. 2f)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The EA will identify the acreage and type of treatment by land allocation. Maps with these allocations and other ecologically significant land designations will be included in the project record.

42. *The Forest Service should disclose the amount of planned road construction and reconstruction and analyze impacts on habitat fragmentation and connectivity, weed invasion, increased predation, and poaching. The environmental impacts of temporary road construction and restoration (disturbance) should be fully analyzed in light of the best available information regarding the environmental impacts of roads, as set forth in Natural Resources Defense Council (1999). (FIG, para. 2g)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The transportation analysis will disclose the amount of planned road construction and reconstruction. The Wildlife BE and MIS analysis in the EA will analyze project effects to wildlife. The Noxious Weed Assessment will analyze the effects of planned activities on the potential spread of noxious weeds, based on best available information.

43. *If the project is adjusting the boundaries of the WUI compared to the boundaries assumed in the 2004 ROD, the Forest Service should explain the basis for the change and analyze the environmental impacts. (FIG, para. 2h)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The project does not propose to adjust the WUI boundaries.

California Spotted Owl

44. *The California spotted owl is threatened with extinction and requires protection under the Endangered Species Act. The Center for Biological Diversity and other groups have petitioned the U.S. Fish and Wildlife Service to protect the owl under the ESA. (Center for Biological Diversity et al. 2004). The Fish and Wildlife Service recently issued a positive 90-day finding that the petition presents substantial information indicating that listing may be warranted. (USDI Fish and Wildlife Service 2005). (FIG, para 3)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The owl is not currently listed for protection under the ESA. Future listing of the owl under the ESA is outside the scope of this project. The owl is protected under the Tahoe National Forest Land and Resource Management Plan, as amended by the 2004 Sierra Nevada Forest Plan Amendment Final Supplemental Environmental Impact Statement Record of Decision (2004 SNFPA FSEIS ROD). The Alder Creek Project will comply with the Standards and Guidelines for protection of the California spotted owl that are found in the 2004 ROD on pages 59 to 61.

45. *FIG refers to the results of a Lassen demographic study on the California spotted owl, which suggest a declining population trend. (FIG, para. 4 and 5)*

Non-issue: No clear dispute with Proposed Action (PA)

Response: The Alder Creek project has been designed to comply with the standards and guidelines in the 2004 SNFPA FSEIS ROD to ensure the viability of the California spotted owl. The Alder Creek Project EA and Wildlife BE will analyze the impacts of proposed activities on this species.

46. *There is strong evidence that logging pursuant to the 2004 ROD, particularly logging of medium and large trees, reduction in canopy cover, removal of large snags and down wood, and logging within owl PACs owl HRCAs, old forest emphasis areas, and areas of concern, will degrade owl nesting and foraging habitat and threaten the owl's viability. (SNFPC et al. 2004, pp. 14-20). The Forest Service's Science Consistency Review concluded that the new plan "incurs greater risk" to the owl than the Framework (Stine and Keane 2003, p. 9), and the agency's Washington Office Director of Fish and Wildlife found that the new plan increases the risks to the owl's population, threatening the owl's viability and distribution and contributing to a trend towards federal listing under the Endangered Species Act. (Noon 2004; Verner 2003; Blakesley and Noon 2004; Peery 2004; Bond 2003) (FIG, para. 6).*

Non-Issue: No clear disagreement with the proposed action.

Response: Disagreements with the adequacy of the 2004 SNFPA ROD to protect the California spotted owl and its habitat is outside the scope of this project.

47. *FIG refers to the Alder Creek Project as one that implements the QLG, and as such, requires "special consideration and analysis." FIG also refers to concerns*

expressed during the adoption of the 2001 Framework (FIG, Para. 7)

Non-issue: No clear dispute with Proposed Action (PA)

Response: The Alder Creek Project is neither a part of the HFQLG Pilot Project, nor located within or in close proximity to the HFQLG Pilot Project Area. Therefore, implementation of the HFQLG Pilot Project is not relevant to the environmental analysis of the Alder Creek Project. The 2001 SNFPA FEIS ROD (Framework) has been replaced by the 2004 SNFPA FSEIS ROD. The 2004 ROD retains the overall goals of the SNFPA 2001 ROD its land allocations, and key components of the conservation strategy for old forest dependent species (2004 SNFPA ROD, pp. 3 and 4). Management direction in the 2004 ROD is consistent with the approach recommended by research scientists in the CASPO technical report, and in subsequent suggestions to improve upon this earlier work (2004 ROD, pp. 6 and 7). The Alder Creek project will comply with the requirements of the 2004 ROD to ensure the viability of the California spotted owl including protection of its habitat.

48. *Given the risks to the owl of implementing the 2004 ROD and the QLG pilot project, it is essential that the Forest Service take a detailed and careful look at the likely impacts on the owl and its habitat of implementing the Alder Creek project. An adequate analysis should address, at a minimum, the following issues. (See SNFPC et al. 2004, pp 9-28, 77-80). (FIG, para. 8)*

Non-issue: No clear dispute with proposed action.

Response: The Wildlife BE and EA will analyze in detail the direct, indirect and cumulative (past, present, and foreseeable future) impacts of proposed project activities on the spotted owl. See Responses to Comment # 10 – 13.

49. *The Forest Service should disclose the amount of owl nesting and foraging habitat currently within the project planning area, the amount of nesting and foraging habitat that will be logged, and the amount of such habitat that will be rendered unsuitable. Canopy cover less than 50% should not be considered as suitable owl habitat. (SNFPC et al. 2004, 00. 10-11). (FIG, para. 8a)*

Non-Issue: No clear dispute with the proposed action.

Response: The Wildlife BE will disclose the amount of potential owl nesting and foraging habitat, and the impacts of the proposed action on such habitat. The Alder Creek Project will comply with the management direction in the 2004 SNFPA FSEIS ROD for ensuring the protection of California spotted owl habitat.

50. *The EA should analyze the project's impacts to owl habitat at multiple scales, including home range core areas (HRCAs), territories and home ranges, and landscape. (FIG, para. 8b)*

Non-Issue: No clear dispute with the proposed action.

Response: The Wildlife BE will analyze the impacts of the proposed action on potential owl habitat.

51. *With respect to each HRCA, the EA should identify the current amount of owl nesting and foraging habitat and the amount that will be degraded by the project, which was specifically addressed in environmental planning. (Stine and Keane 2003, pp. 4, 6). The analysis should assess the percentage of suitable nesting and foraging habitat within each HRCA both before and after project implementation. Based on Blakesley's analysis of 500 acre nest core areas, 83 percent suitable habitat within each HRCA appears to be a reasonable target. (Blakesley 2005). This analysis should account for the accumulation, (past, present, and foreseeable future), of habitat losses including, especially habitat altered by the majority private land-owner SPI, in the vicinity of the proposed Alder Creek action. (FIG, para. 8c)*

Non-Issue: No clear dispute with the proposed action.

Response: The Wildlife BE and EA will analyze in detail the direct, indirect and cumulative (past, present, and foreseeable future) impacts of proposed project activities on potential spotted owl habitat. The BE will disclose the amount of owl nesting and foraging habitat within HRCAs. The cumulative effects analysis in the BE will consider the impacts of private landowners on owl habitat. The Alder Creek Project will comply with the standards and guidelines in the 2004 SNFPA FSEIS ROD regarding protection of the spotted owl, as described in the response to FIG Comment #14. The Tahoe Donner, Stoney Creek Ridge and Prosser Lakeview Estates Subdivisions comprise the majority of private land in the vicinity of the proposed Alder Creek project, not SPI lands.

52. *Similarly, with respect to each owl territory or home range, the EA should identify the current amount of owl nesting and foraging habitat and the amount that will be degraded by the project. The analysis should assess the percentage of suitable nesting and foraging habitat within each HRCA both before and after project implementation. Based on Bart's (1995) analysis as applied to the northern Sierra, each owl home range should contain a minimum of 45-50 percent suitable habitat. (Bond 2005b; Blakesley 2005). This analysis should account for the accumulation, (past, present, and foreseeable future), of habitat losses including, especially habitat altered by the majority private land-owner SPI, in the vicinity of the proposed Alder Creek action. (FIG, para. 8d)*

Non-issue: No clear dispute with the proposed action.

Response: See response to FIG Comment #17.

53. *Recent studies by leading Forest Service forest carnivore experts compared contemporary and historical distributions of habitat and populations for forest carnivores, including the marten. (Zielinski et al. 2005a; Zielinski 2004). The research concluded that the marten is a species "with substantial changes in distribution," including "large gaps between contemporary detections that were*

not present historically” in the northern Sierra Nevada and southern Cascades. (Zielinski et al. 2005a, p. 1894). The authors conclude that marten “populations in the southern Cascades and northern Sierra Nevada now appear discontinuous.” Notably, “the areas of Plumas and Lassen County where martens were not detected, and which have been managed for timber harvest, have relatively little forests with late seral/old growth attributes.” (Zielinski et al. 2005a, p. 1394). The authors conclude that the apparent reductions in the range of the marten and other forest carnivores is most likely due to a combination of factors, including “loss of mature forest habitat.” (Ibid., pp. 1385-86). (FIG, para. 10)

Non-Issue: No clear disagreement with the proposed action

Response: As described above in the Response to Comment #2, the Alder Creek project area does not contain the structural characteristics of old forests, due to historic logging during the early 1900s, the Donner Ridge Fire in 1960, and more recent salvage logging. The Wildlife BE will analyze the impacts of proposed activities on marten and other forest conifers. Proposed thinning from below will help reduce potential conifer losses from insects, and disease and improve chances that fire suppression efforts will be successful, thereby allowing conifer stands to move toward maturity.

54. *There is strong evidence that logging pursuant to the 2004 ROD, particularly logging of medium and large trees, reduction in canopy cover, removal of large snags and down wood, and logging within the QLG pilot project are will degrade marten denning, resting, and foraging habitat. (SNFPC et al. 2004, pp. 45-48). The forest carnivore experts who have reviewed the plan have uniformly concluded that it increases the risks to the marten’s population, threatening the marten’s viability and distribution and potentially leading to local extirpation. (Barrett 2004; Kucera 2004a; Buskirk 2003). The U.S. Fish and Wildlife Service has concluded that full implementation of the QLG project “poses a significant threat to the long-term viability of the...American marten due to the loss, degradation, and fragmentation of suitable habitat” (USDI Fish and Wildlife Service 1999, p. 16), and according to marten experts “there is no new information that would change these conclusions.” (Barrett 2004, p. 11). (FIG, para. 11)*

Non-Issue: No clear disagreement with the proposed action.

Response: The Alder Creek Project is not a part of the HFQLG Pilot Project, as discussed in the response to FIG Comment # 14. Disagreements with the 2004 SNFPA ROD and HFQLG FSEIS ROD are outside the scope of this project.

55. *Given the risks to the marten of implementing the 2004 ROD, it is essential that the Forest Service take a detailed and careful look at the likely impacts on the marten and its habitat of implementing the project. An adequate analysis should address, at a minimum, the following issues (See SNFPC et al. 2004, pp. 41-48, 83-85).(FIG, para. 12)*

Non-Issue: No clear disagreement with the proposed action.

Response: The Wildlife BE and EA will analyze in detail the direct, indirect and cumulative (past, present, and foreseeable future) impacts of proposed project activities on the marten and its habitat.

56. *The EA should disclose the amount of marten denning/nesting and traveling/foraging habitat currently within the project planning area, the amount of each type of habitat that will be logged, and the amount of such habitat that will be rendered unsuitable. Canopy cover less than 50 percent should not be considered as suitable marten habitat. This analysis should account for the accumulation, (past, present, and foreseeable future), of habitat losses including, especially, habitat altered by the majority private land-owner, SPI, in the vicinity of the proposed Alder Creek action. (FIG, para. 12a)*

Non-Issue: No clear disagreement with the proposed action.

Response: The Wildlife BE will disclose the amount of marten denning/nesting and traveling/foraging habitat currently within the project area, and analyze the impacts of project activities on these habitat components. The BE will include a cumulative effects analysis. SPI is not the majority private landowner, as discussed in the response to FIG Comment # 18. The proposed action will comply with the requirements of the 2004 SNFPA FSEIS ROD to ensure the viability of the marten.

57. *The Forest Service should disclose the impact of group selection openings on the marten. Given the marten's sensitivity to forest openings, the Forest Service should analyze the percentage of openings within the project area before and after project implementation with respect to a threshold of 20-25 percent forest openings. (FIG, para. 12b)*

Non-Issue: No clear disagreement with the proposed action.

Response: The proposed action does not propose group selection harvest. However, aspen regeneration treatment will remove most conifers less than 30 inches diameter at breast height (dbh). This treatment is prescribed in individual aspen stands that are considered at high risk of being lost due to competition with conifers. These priority stands cover approximately 22 acres, though are not contiguous. The Wildlife BE will analyze the impacts of conifer removal, including aspen regeneration treatments on the marten and its habitat.

58. *The EA should provide specific details about marten locations and sightings, including a map and underlying records.(FIG, para. 12c)*

Non-Issue: No clear disagreement with the proposed action.

Response: The Wildlife BE will provide marten locations, sightings and maps.

59. *The EA should analyze how reductions in suitable marten habitat are likely to affect the marten's population and distribution and the viability of the marten in the planning area and in the northern Sierra Nevada. This analysis should account for the accumulation, (past, present, and foreseeable future), of habitat losses including, especially, habitat altered by the majority private land-owner, SPI,*

in the vicinity of the proposed Alder Creek action. (FIG, para. 12d)

Non-Issue: No clear disagreement with the proposed action.

Response: The Wildlife BE and the project EA will analyze the potential reductions in suitable marten habitat and how this may potentially affect the marten's population, distribution and viability in the project area, AND IN THE NORTHERN SIERRA NEVADA. They will examine the cumulative effects of past, present, and foreseeable future projects on marten habitat loss, including those on private land. SPI is not the majority private landowner, as discussed in FIG Comment #14.

60. *The Forest Service should carefully address the impacts of proposed logging on marten habitat connectivity and on the fragmentation of existing habitat. (SNFPC et al. 2004, pp. 38-39). Special attention should be paid to impacts of any proposed DFPZs or road construction on habitat connectivity and fragmentation within the QLG pilot project area, which has been identified by the Forest Service and others as a significant concern. (SNFPC et al 2004, pp. 47-48; USDA Forest Service 1999c, pp. 8-9). Given the extensive checkerboard lands in the planning area, we are particularly concerned about the project's impacts to north-south habitat connectivity for marten. The 2004 ROD directs the Forest Service to "minimize old forest habitat fragmentation," to assess fragmentation issues in the [biological evaluation], to assess potential impacts on habitat connectivity, and to consider retaining forested linkages as part of "project-level analysis." (USDA Forest Service 2004b, pp. 53-54). Similarly, the QLG plan requires that "habitat connectivity...be maintained to allow movement of old forest...species between areas of suitable habitat." (USDA Forest Service 1999c, p. 9). The EA should demonstrate how proposed logging will comply with these standards. (FIG, para. 12e)*

Non-Issue: No clear disagreement with the proposed action.

Response: The BE will analyze the impacts of proposed activities on marten habitat connectivity and on the fragmentation of existing habitat. The Alder Creek Project is not part of the HFQLG pilot program, as discussed in the response to FIG Comment #15, and DFPZ construction is not proposed.

61. *The EA should address the potential for the cumulative impacts associated with the Alder Creek Project, combined with the Highway 80 corridor, to contribute to a rift in the Sierra Nevada ecosystem, including the genetic and demographic isolation of populations of dependent species to the north and south of the Tahoe National Forest. (FIG, para. 12f)*

Non-Issue: No clear disagreement with the proposed action.

Response: The BE and EA will address the potential for cumulative impacts, including the project's potential to contribute to isolation of populations of marten to the north and south of the Tahoe National Forest.

62. *The EA should disclose the amount and intensity of proposed logging within the forest carnivore network previously identified by the Tahoe National Forest and*

*how such logging may affect the ecological values within these areas. The EA should explain how logging within these areas is consistent with protecting their habitat value for marten. **This analysis should account for the accumulation, (past, present, and foreseeable future), of habitat losses including, especially, habitat altered by the majority private land-owner, SPI, in the vicinity of the proposed Alder Creek action. (FIG, para. 12g)***

Non-Issue: No clear disagreement with the proposed action.

Response: The Wildlife BE and project EA will disclose the amount and intensity and potential for direct, indirect and cumulative effects within the forest carnivore network previously identified by the Tahoe NF. Both analyses will disclose how project activities comply with management direction (standards and guidelines established in the 2004 SNFPA FSEIS ROD) for protecting marten habitat. See response to FIG Comment #18 regarding cumulative effects analysis of activities on private land.

Pacific Fisher

63. *FIG declares the status of the Pacific fisher in the Sierra Nevada as highly imperiled, due to: habitat that is insufficient, poor in quality and fragmented, small population size in the southern Sierra and failure of this species to recolonize the central and northern Sierra, citing the U.S. Fish and Wildlife Service and Forest Service researchers. FIG cites the need to promote fisher habitat in the central and northern Sierra by providing habitat elements and connectivity. (FIG, para. 13, 15, 16 and 17)*

Non-Issue: No clear disagreement with the Proposed Action

Response: The Wildlife BE and EA will assess the potential direct, indirect and cumulative impacts of the proposed action on the fisher and potential habitat..

64. *Promoting the fisher's viability in the Sierra Nevada requires two steps: protecting and enhancing habitat that is currently occupied within the southern Sierra fisher conservation area, and protecting and restoring habitat north of the southern Sierra fisher conservation area to facilitate the fisher's recolonization of and expansion to the central and northern Sierra. Therefore, it is essential that the Forest Service carefully consider impacts of planned logging on the fisher even outside of currently occupied habitat (FIG, para. 14).*

Non-Issue: No clear disagreement with the Proposed Action

Response: The Wildlife BE and EA will assess the potential direct, indirect and cumulative impacts of the proposed action on the fisher and potential habitat.

65. *The 2004 Framework significantly weakens protection of fisher habitat in the central and northern Sierra. As a general matter, the new standards and guidelines allow significant degradation of potential resting and denning habitat throughout*

the Sierra Nevada. The likely impact will be to reduce the likelihood of the fisher's recolonization of the central and northern Sierra Nevada. (Barrett 2004, pp. 6-8). As forest carnivore expert Jeff Lewis concluded: "Fuel reduction treatments... to the north of the occupied fisher area... could prevent the expansion and recovery" of the southern Sierra population. (Lewis 2003a, p. 2). (FIG, para. 18)

Non-Issue: No clear disagreement with the Proposed Action

Response: Disputes with the adequacy of the 2004 Framework to ensure fisher viability is outside the scope of the Alder Creek Project.

66. *More specifically, the plan allows full implementation of the QLG pilot project, which will significantly increase the amount and intensity of logging in the northern Sierra Nevada. The U.S. Fish and Wildlife Service has concluded that full implementation of the QLG project "poses a significant threat to the long-term viability of the California spotted owl, Pacific fisher and American marten due to the loss, degradation, and fragmentation of suitable habitat.: (USDI Fish and Wildlife Service 1999, p. 16). As stated by the Fish and Wildlife Service in its consultation on the QLG pilot project, "the proposed action will disproportionately affect suitable habitat for [the fisher]... The Service is concerned that the proposed project will preclude recovery of this species within the project area and throughout the Sierra Nevada." (Ibid., p. 11). The Service expressed concerns regarding habitat loss, habitat fragmentation, and effects on prey species. (Ibid., p. 11). The Service expressed particular concerns about construction of DFPZs in the QLG area, which may fragment habitat and limit fisher movement and dispersal, "limiting population expansion and colonization of unoccupied habitat..., thus precluding future recovery options." (Ibid., pp. 11-12).(FIG, para. 19)*

Non-Issue: No clear disagreement with the Proposed Action

Response: Implementation of the HFQLG Pilot Project is outside the scope of the Alder Creek Project proposed action.

67. *There is strong evidence that logging pursuant to the 2004 ROD, particularly logging of medium and large trees, reduction in canopy cover, removal of large snags and down wood, and logging within old forest emphasis areas and the southern Sierra fisher conservation area, will degrade fisher denning, resting, and foraging habitat and further threaten the fisher's viability. (SNFPC et al. 2004, pp. 32-41). The forest carnivore experts who have reviewed the plan have uniformly concluded that the plan increases the risks to the fisher's population, further threatening the fisher's viability and distribution and contributing to the need for federal listing under the Endangered Species Act. (Barrett 2004; Kucera 2004a; Lewis 2003a, 2003b; Buskirk 2003). (FIG, para. 20)*

Non-Issue: No clear disagreement with the Proposed Action

Response: See response to FIG Comment # 32

68. *The impacts of logging potential fisher habitat within eastside pine forests are a particular concern. The fisher currently inhabits eastside pine habitat within the*

southern Sierra, and historically inhabited eastside habitat in the central and northern Sierra. (Grinnell et al. 1937). Yet, “on a regional basis, eastside pine has lost more late successional attributes in the last century than any other forest type.” (Centers for Water and Wildland Resources 1996, Volume 1, p. 106). The 2004 plan weakens the Framework by abandoning any protection for canopy cover in eastside forests and by raising the maximum diameter limit of trees that can be cut from 24 inches to 30 inches. The Fish and Wildlife Service has expressed serious concerns about intensive logging of eastside forests under the QLG proposal, which will be exacerbated by the new plan’s abandonment of canopy cover protection for eastside pine forests: **(FIG, para. 21)**

Non-Issue: No clear disagreement with the proposed action.

Response: Disagreements with the Decisions for the HFQLG FSEIS ROD and the SNFPA FSEIS ROD are outside the scope of this project.

69. *Given the risks to the fisher of implementing the 2004 ROD, and the importance of facilitating the fisher’s recolonization of the northern Sierra, it is essential that the Forest Service take a detailed and careful look at the likely impacts on the fisher and its habitat of implementing the Alder Creek project. An adequate analysis should address, at a minimum the following issues. (see SNFPC et al. 2004, pp. 28-41, 80-83) (FIG, para. 22).*

Non-Issue: No clear disagreement with the proposed action.

Response: The Wildlife BE and project EA will take a detailed look at the likely impacts of project activities on the fisher and its potential habitat.

70. *The Forest Service should disclose the amount of fisher denning/resting and traveling/foraging habitat currently within the project planning area, the amount of such habitat that will be logged, and the amount that will be rendered unsuitable. **This analysis should account for the accumulation, (past, present, and foreseeable future), of habitat losses including, especially, habitat altered by the majority private land-owner, SPI, in the vicinity of the proposed Alder Creek action. (FIG, para. 22a)***

Non-Issue: No clear disagreement with the proposed action.

Response: The Wildlife BE will disclose the amount of fisher denning/resting and traveling/foraging habitat currently within the project area, and the direct, indirect and cumulative impacts of proposed activity on these habitat components. Once again, SPI is not a major private landowner in the vicinity of the project area.

71. *The Forest Service should disclose the impacts of proposed logging on fisher habitat connectivity and on the fragmentation of existing habitat. Special attention should be paid to impacts of any proposed DFPZs or road construction on habitat connectivity and fragmentation within the QLG pilot project area, which has been identified by the Forest Service and others as a significant concern. (SNFPC et al.*

2004, pp. 47-48; USDA Forest Service 1999c, pp. 8-9). The Fish and Wildlife Service states in its positive 90-day finding, “the analysis of connectivity of old forests in the Sierra Nevada noted that ‘checkerboard’ land ownership patterns in the central Sierra Nevada (where there is considerable intermingling of private land with National Forest System land), coupled with assumptions about reasonably foreseeable timber harvesting on private lands, make the retention of connectivity ‘problematic’ in these areas.” (USDI Fish and Wildlife Service 2003b, p. 41172). **Given the extensive checkerboard lands in the planning area, we are particularly concerned about the project’s impacts to north-south habitat connectivity for fisher.** The 2004 ROD directs the Forest Service to “minimize old forest habitat fragmentation,” to assess fragmentation issues in the [biological evaluation], to assess potential impacts on habitat connectivity, and to consider retaining forested linkages as part of “project-level analysis.” (USDA Forest Service 2004b, pp. 53-54). Similarly, the QLG plan requires that “habitat connectivity...be maintained to allow movement of old forest...species between areas of suitable habitat.” (USDA Forest Service 1999c, p. 9). The EA should demonstrate how proposed logging will comply with these standards. **(FIG, para. 22c)**

Non-Issue: No clear disagreement with the proposed action.

Response: The BE will analyze cumulative effects on fisher. SPI is not a major private land-owner in the vicinity of the Alder Creek project. The Tahoe Donner, the Stoney Creek Ridge, and the Prosser Lakeview Estates Subdivisions comprise the majority of private ownership adjacent to the project area. While these developments are extensive, they do not form a checkerboard of private ownership in the vicinity of the project area. The EA will demonstrate how the proposed action will comply with 2004 SNFPA FSEIS ROD standards and guidelines. Comments regarding the requirements of HFQLG plan are not relevant to the Alder Creek Project, as discussed under Comment # 14. The BE will disclose the amount and intensity of proposed activities and their impacts within the forest carnivore network identified by the Tahoe National Forest.

72. *The EA should address the potential for the cumulative impacts associated with the Alder Creek Project, combined with the Highway 80 corridor, to contribute to a rift in the Sierra Nevada ecosystem, including the genetic and demographic isolation of populations of dependant species to the north and south of the Tahoe National Forest. (FIG, para. 22d)*

Non-Issue: No clear disagreement with the proposed action.

Response: The BE and EA will address the potential for cumulative impacts, including the project’s potential to contribute to isolation of populations of the fisher to the north and south of the Tahoe National Forest.

73. *The EA should disclose the amount and intensity of proposed logging within the forest carnivore network previously identified by the Tahoe National Forest and how such logging may affect the ecological values within these areas. The EA should explain how logging within these areas is consistent with protecting their habitat value for fisher. (FIG, para. 22e)*

Non-Issue: No clear disagreement with the proposed action.

Response: The EA will disclose the amount, intensity and impacts of proposed logging within the forest carnivore network, and how proposed activities will comply with the 2004 SNFPA ROD to ensure protection of habitat values for fisher.

74. *For projects in the QLG pilot project area, the Forest Service should specifically address information in the 1999 biological evaluation for the QLG pilot project, which identifies adverse impacts to the fisher resulting from fragmentation and loss of key habitat elements due to the pilot project logging program. The BE determined that the relative ability of Alternative 2 in the 1999 FEIS to meet the criteria for denning, resting, nesting and foraging habitat, vertical diversity within the stand, and connectivity was low. (USDA Forest Service 1999a, p. 148). The EA should address each of these factors. (FIG, para. 22f)*

Non-Issue: No clear disagreement with the proposed action.

Response: The HFQLG pilot project has no relevance to this project as stated previously.

75. *The EA should analyze how reductions in suitable fisher habitat may affect the likelihood of the fisher's recolonizing the project area, including the potential suitability of the area for fisher reintroduction. (Zielinski et al. 2005b). **This analysis should account for the accumulation, (past, present, and foreseeable future), of habitat losses including, especially, habitat altered by the majority private land-owner, SPI, in the vicinity of the proposed Alder Creek action. (FIG, para 22g)***

Non-Issue: No clear disagreement with the proposed action.

Response: The Wildlife BE and project EA will analyze the direct, indirect and cumulative impacts of proposed activities in suitable fisher habitat. The cumulative effects of private land ownership will be considered. SPI is not the majority private land-owner.

Northern Goshawk

76. *FIG describes habitat needs of the northern goshawk in the Sierra Nevada. FIG states that the FSEIS identified that the 2004 ROD could adversely affect goshawk habitat in eastside pine habitats, and but that mitigations to retain higher levels of stand basal area or canopy cover to ensure adequate foraging and nesting habitat within a project area could be incorporated into individual projects." (FIG, para. 23 and 24)*

Non-Issues: No clear disagreement with the proposed action.

Response: The proposed action for the Alder Creek project contains mitigation and project design features to ensure adequate foraging and nesting habitat within the project area, i.e. maintaining a mosaic of vegetation to maintain suitable habitat in the Goshawk PAC by having a tighter residual conifer spacing in some area, leaving some clumps of conifers untreated, and feathering treatments so heavier treatment is closer to roads (PA, p. 7, #24)

77. *Given the risks identified in the FSEIS, the Forest Service must make a detailed assessment of the likely impacts of implementing this project on northern goshawk and its habitat. An adequate analysis should address, at a minimum, the following issues.*

The Forest Service should disclose the amount and intensity of harvest proposed in goshawk territories.

The Forest Service should evaluate goshawk density in the vicinity of the Project and prepare an assessment of the potential for the Project to adversely alter habitat and increase habitat and population gaps. (ID., p. 286) **(FIG, para. 25a and b)**

Non-Issue: No clear disagreement with the proposed action.

Response: The Wildlife BE will analyze the impacts of implementing the project on northern goshawk and its habitat, and disclose goshawk density in the vicinity of the project area.

78. *For projects in the QLG pilot project area, the Forest Service should specifically address information in the 1999 biological evaluation for the QLG pilot project, which identifies significant impacts to the goshawk resulting from fragmentation and loss of key habitat elements due to the pilot project logging program. In addition, the QLG EIS assumed that DFPZs would generally retain 40 percent canopy cover, which was important to the finding that the plan would maintain goshawk viability. (USDA Forest Service 2000b, pp. 28-30). To the extent that the Alder Creek project will reduce canopy cover below 40 percent, the EA must carefully address how goshawk habitat and viability will be maintained. **(FIG, para. 26)***

Non-Issue: no clear disagreement with the proposed action.

Response: The Alder Creek project is not in the HFQLG pilot project area, references to the pilot program are not relevant to this project. Thinning prescriptions within the goshawk PAC, in the Alder Creek project area have been designed by the Wildlife Biologist to maintain habitat attributes for the goshawk. Proposed harvest in the PAC is not expected to reduce canopy cover below 40 percent, with the exception of conifer removal in aspen regeneration units. Where conifers are proposed for removal to facilitate aspen regeneration, canopy closure below 40 percent is expected for the short-term, until aspens resprout and provide cover. Mitigation measures to maintain suitable habitat for the goshawk include maintaining a mosaic of vegetation in the goshawk PAC by leaving a tighter conifer spacing in some areas, leaving some clumps of conifers untreated, and feathering treatments so that heaviest treatment is closer to roads, as designated by the District Wildlife Biologist (Proposed Action, page 7, #24). The Wildlife BE and the EA will analyze the impact of proposed harvest activities on the goshawk habitat and viability.

Management Indicator Species and Species At Risk

79. *In the 2004 ROD, the Forest Service readopted Appendix E of the 2001 SNFPA FEIS, including the requirements for monitoring various Management Indicator*

Species and Species at Risk (“MIS/SAR”). (USDA Forest Service 2004b, p. 70). These species are considered particularly vulnerable to impacts from National Forest management (FIG, para.27)

Non-Issue: No clear disagreement with the proposed action.

Response: The Alder Creek project will comply with the requirements in the 2004 SNFPA FSEIS ROD regarding monitoring MIS.

80. *The Forest Service should disclose the direct, indirect, and cumulative impacts to each MIS/SAR affected by this Project. It should also identify and analyze changes in habitat and any and all population trend data. An adequate environmental analysis would include these data and explain how they support findings under NFMA to insure the diversity and continued viability of the species in this region. 16 U.S.C. 1604 § 6(g) (3)(B). MIS/SAR identified in the forest plan and Appendix E should be monitored in accordance with the plan and Appendix E, in the forest and in the project area. The EA should disclose the results of all monitoring for MIS/SAR. If the monitoring requirements of Appendix E and the Forest Plan are not being complied with, the project is unlawful and should not proceed (FIG, para. 28).*

Non-Issue: No clear disagreement with the proposed action.

Response: The MIS Project Level Assessment and the EA will disclose the direct, indirect and cumulative impacts of project alternatives on MIS and their habitat.

81. *FIG states that the pileated woodpecker is designated by the Tahoe NF LRMP as a MIS, and that the EA needs to analyze the impacts of proposed project activities on the viability, distribution, and habitat of this species in the project area. FIG again references the HFQLG Pilot Project. (FIG,para. 29).*

Non-Issue: No clear disagreement with the proposed action.

Response: The EA will include the findings of the MIS Assessment, which will analyze the impacts on the MIS in the project area. The pileated woodpecker is not designated as a MIS in the Tahoe NF LRMP (TNF LRMP FEIS, page 3-79). The Alder Creek project is not part of the HFQLG Pilot Project .

Fire and Fuels

82. *The 2004 ROD was based in significant part on the assumption that logging under the 2001 ROD could not achieve the Forest Service’s fuels reduction objectives. However, as demonstrated in the Sierra Nevada Forest Protection Campaign’s (Campaign) appeal (with the FIG) of the 2004 ROD, the Forest Service has failed to show that logging trees greater than 20” dbh or reducing canopy cover to below 50 percent is necessary to reduce the risk of catastrophic fire. (SNFPC et al. 2004, pp. 62-71). Moreover, according to the Euro (or Phoenix) EA (pp. 12-14), alternatives that utilize a 20” dbh limit – with corresponding canopy cover of 47-51 percent – would have essentially the same impacts on forest health and fire behavior as the proposed action. Therefore, it is essential that the Forest Service*

include a careful and detailed analysis of fire and fuels issues in the Alder Creek EA (FIG, para. 30).

Non-Issue: No clear disagreement with the proposed action.

Response: The Fire and Fuels Analysis will evaluate fuel loading and predicted fire behavior for each project alternative.

83. *There is substantial evidence indicating that it is not necessary to reduce canopy cover to 40 percent or below or to remove trees up to 30" dbh, as proposed in the Alder Creek project, to reduce the risk of catastrophic wildfire. Much of this evidence is cited in the Campaign's appeal (with the FIG) of the 2004 ROD. (SNFPC et al. 2004, pp. 62-71). Fire ecologist Carol Rice provides a detailed review of relevant scientific literature and case studies demonstrating that the goal of reducing catastrophic wildfire and promoting fire resilient forests can be met without logging trees up to 30" diameter or reducing canopy cover to 40 percent or below.¹ (Rice 2005). Thus, for example, Stephens and Moghaddas (2005a) studied a range of treatments on the Blodgett Forest in the central Sierra Nevada as part of the Forest Service's national Fire and Fire Surrogate study. They found that all studied treatments effectively reduced surface fire behavior and crown and torching indices while maintaining canopy cover in excess of 50 percent. Similarly, in a different study in the same area, Stephens and Moghaddas (2005b) concluded that thinning from below was more effective at reducing predicted mortality in trees up to 51 cm diameter when compared with any type of silvicultural treatment resulting in plantations and individual tree selection, despite the fact that canopy cover in the thinning from below treatment was 57 percent (FIG, para. 31).*

Non-Issue: No clear disagreement with the proposed action, or anticipated effects.

Response: Removal of conifers to a 30 inch maximum limit is prescribed to meet silvicultural objectives, not to meet fuel management objectives, as described in the proposed action on page 1, #1. Specifically, thinning from below to an approximate 17-20 foot spacing is intended to reduce inter-tree competition for site resources and thereby improve overall forest health. With a "thinning from below" prescription, selected leave trees will be from the dominant or co-dominant crown classes when possible and shall be the best-formed, disease and damage-free, with full crowns. A more detailed thinning prescription will be included in the project record. During thinning, ladder fuels and all snags less than or equal to 15 inches dbh will be cut and removed to reduce hazardous fuel conditions, as described in the Proposed Action on page 2, #2. Since thinning, hazardous fuels reduction, and aspen restoration will be accomplished through service contracts, with the sale of forest products embedded in the contract, e.g. timber, chips, firewood, the rationale for removing trees greater than 20" dbh is to improve the overall cost efficiency of

¹ Although Rice's statement was prepared as part of a review of the Creeks project on the Almanor Ranger District of the Lassen National Forest, the statement is generally applicable to the Alder Creek project as well.

the project, while meeting silvicultural objectives. The economic value added by raising the diameter limit from 20" to up to 30" will be disclosed in the EA.

84. *The Fire and Fuels analysis in the Alder Creek EA should include, at a minimum: EA should provide estimates of projected flame length, fire resiliency, mortality of dominant and co-dominant trees, and probability of initiation of crown fire for each alternative, and disclose the underlying data, rationale, and modeling assumptions (FIG, para. 32b).*

Non-Issue: No clear disagreement with the proposed action.

Response: The Fuels Analysis and EA will provide estimates of projected fire behavior for each alternative. The Fuels Analysis will include modeling assumptions, and the data used in the modeling.

85. *The Forest Service should provide estimates of projected fire condition class for each alternative, together with underlying data and rationale (FIG, para. 32c).*

Non-Issue: No clear disagreement with the proposed action.

Response: The Fuels analysis will evaluate the fire condition class for each alternative, and will include the data used in fuel modeling.

86. *The Forest Service should prepare an analysis of impacts on fire hazard based on thinning from below up to a range of diameter limits, beginning with 6" dbh and increasing by 2" increments to the maximum diameter limit allowed by the 2004 ROD (FIG, para. 32d)..*

Non-Issue: No clear disagreement with the proposed action.

Response: *The Fuels Analysis will utilize state of the art fuels modeling to predict fire behavior and conifer mortality for each alternative.*

87. *Based upon concerns raised by leading fire scientists (Stephens 2004; Stephens 2003; Stephens 1998; van Wagtendonk 1996), the Forest Service should provide an analysis of tradeoffs leading to increased fire hazard from increased canopy openings. The Forest Service should disclose specific microclimate effects, including changes in wind speed, humidity, understory re-growth, and maintenance issues in treatment areas as part of the fuels analysis. (See also Scott and Reinhardt 2001) (FIG, para. 32e).*

Non-Issue: No clear disagreement with the proposed action.

Response: *The Fuels Analysis will disclose microclimate effects, and understory vegetation response to proposed thinning, and maintenance needs for each alternative..*

88. *The Forest Service should demonstrate how the Project complies with Appendix J of the 1999 QLG FEIS and its direction to treat aerial fuels in a way that insures the retention of clumps of the largest trees, rather than uniform spacing of residual trees (FIG, para. 32f).*

Non-Issue: No clear disagreement with the proposed action.

Response: The 1999 HFQLG FEIS has no relevance to this project.

89. *Recent research suggests that factors that limit the propagation of crown fire (e.g. height to live crown) and not those that sustain crown fire (e.g. crown bulk density or canopy cover) had the strongest correlation to fire severity. (Omi and Martinson 2002). Thus, fire severity was most effectively reduced when the height to live crown was sufficiently great so as to prevent the ignition of the crown. The Forest Service needs to consider and respond to this information in the EA, and to provide detailed information on the height to live crown for the large dominant or co-dominant trees in each of the units (FIG, para. 32g).*

Non-Issue: No clear disagreement with the proposed action.

Response: The Fuels Analysis will consider height to live crown in treatment units in its evaluation of predicted fire behavior.

Riparian Issues and Analysis

90. *The 2004 SNFPA ROD directs the application of the SAT guidelines to projects in the HFQLG project area. Because the SAT guidelines do not impose specific standards on vegetation management in riparian areas, the FSEIS recognized that the 2004 ROD “may pose higher short term risks to aquatic resources because it prescribes larger amounts of mechanical treatments and greater treatment intensities.” (USDA Forest Service 2004a, p. 215) (FIG, para. 33).*

Non-Issue: No clear disagreement with the proposed action.

Response: SAT guidelines do not apply to the Alder Creek Project, since it is not an HFQLG project. The project will comply with the standards and guidelines to meet Riparian Conservation Objectives (RCOs) outlined in the 2004 SNFPA FSEIS on pages 33-34 (RCOs), and 62-66 (Standards and Guidelines in Riparian Conservation Areas (RCAs).

91. *The FSEIS also recognized the need to complete site-specific analyses of cumulative effect of any proposed action on aquatic and riparian resources. (USDA Forest Service 2004a, Volume 2, p. 31). At a minimum the Forest Service must evaluate the following in this project analysis:*

The Forest Service should identify the widths established for each Riparian Habitat Conservation Area (RHCA) in the project. If the interim widths for RHCA (as specified in HFQLG FEIS, Appendix L, pp. 10-11) are not adopted, then a watershed analysis justifying buffers that are less than the minimum widths must be completed in accordance with HFQLG Act and the SAT guidelines. In such a case, the environmental analysis should include this watershed analysis (FIG, para. 34a).

Non-Issue: No clear disagreement with the proposed action.

Response: The Hydrology Report, Biological Evaluation for Aquatic Species and Biological Evaluation for Plants will analyze the cumulative effects of each

alternative on aquatic and riparian resources. All project activities are designed by the Interdisciplinary Team to comply with the 2004 SNFPA FSEIS Standards and Guidelines in RCAs. SAT guidelines and CARs do not apply to the Alder Project Area.

92. *The EA should quantify the amount and intensity of timber harvest proposed in Riparian Habitat Conservation Areas (“RHCA”) and Critical Aquatic Refuges (“CARs”). Evaluation of CARs and other aquatic refugia is required to satisfy “Component 1” of the SAT guidelines. (HFQLG FEIS, Appendix L, p. 5) (FIG, para. 34b).*

Non-Issue: No clear disagreement with the proposed action.

Response: See Response to Comment #57. A summary of proposed harvest in RCAs will be included in the project record.

93. *The Forest Service should make a finding, supported by evidence in the environmental analysis, that the proposed Project is consistent with the Riparian Management Objectives (“RMO”) (HFQLG FEIS, Appendix L, p. 4) and the specific standards and guidelines established in the SAT guidelines (Id., pp. 12-16). In particular, the EA should demonstrate how removing large woody material from the RHCA is consistent with maintaining stream channel integrity, as described in our appeal of the Euro project (pp. 8-9). This finding should account for the accumulation, (past, present, and foreseeable future), of riparian habitat losses including, especially, habitat altered by the majority private land-owner, SPI, in the vicinity of the proposed Alder Creek action (FIG, para. 34c).*

Non-Issue: No clear disagreement with the proposed action.

Response: The EA will disclose how the project meets RCOs and retention of down woody material outlined in the 2004 SNFPA FSEIS ROD. See Response to #57 and 58.

94. *The Forest Service should prepare a cumulative watershed effects analysis that discloses the threshold of concern for the affected watersheds, the level of disturbance contributed by the proposed action and proposed mitigation measures when project activities would cause the watershed to approach or exceed the threshold for concern. The Alder Creek project should avoid actions that would cause the TOC to be approached or exceeded, and the EA should include alternatives that would reduce adverse watershed impacts, as described in our appeal of the Euro project (pp. 13-14) (FIG, para. 34d).*

Non-Issue: No clear disagreement with the proposed action.

Response: The Hydrology Report will include a cumulative watershed effects analysis that includes the threshold of concern for affected watershed, the level of disturbance anticipated from proposed alternatives, and mitigation measures. The EA will include an alternative that would reduce adverse watershed impacts.

95. *The Forest Service should assess road conditions for the project area, identify maintenance and restoration needs for stream crossings, and identify maintenance and decommissioning of specific roads. Given that road density is already exceedingly high in the project area, no new roads should be constructed. The EA must demonstrate that there are no alternatives to new road construction and that any such proposal is necessary to meet the project's purpose and need (FIG, para. 34e).*

Non-Issue: No clear disagreement with the proposed action.

Response: The Transportation Analysis will assess road conditions in the project area, and identify restoration, maintenance and decommissioning needs. The Interdisciplinary Team considered several alternative transportation systems before proposing new road construction. The EA and transportation analysis in the project record will demonstrate that proposed new construction is necessary to meet the project's purpose and need, and to minimize impacts to soils, historic sites and the Alder Creek watershed.

X. Cumulative Impacts

96. *FIG describes the NEPA requirements regarding cumulative impact analyses in project EAs. (FIG para 41, 42, 43,).*

Non-Issue: No clear disagreement with the proposed action.

Response: The Alder Creek Project EA will consider the cumulative impacts of proposed alternatives, and include in sufficient detail the environmental impacts of past, present and future projects on both National Forest and private lands, in compliance with NEPA.

97. *The QLG Program of Work is currently known to the Forest Service and displayed on the Forest Service QLG website (<http://www.fs.fed.us/r5/hfqlg/>) and includes specific descriptions of acres to be treated and the sawlog volumes generated for these Forest Service projects scheduled to 2009. In addition to considering logging on public lands, it is essential that the analysis also address logging on private timberlands, particularly within checkerboard areas where private lands are intensively intermingled with Forest Service lands. (SNFPC et al. 2004, pp. 95-98). This analysis should include the environmental impacts of maintaining any proposed DFPZs or area treatments, which are reasonably foreseeable future actions (FIG, para 44).*

Non-Issue: No clear disagreement with the proposed action.

Response: See Response to Para. 13 (HFQLG) and Para. 37 (non-checkerboard ownership).

XI. Other Planning Issues

98. FIG states that the 2004 SNFPA FSEIS ROD is a programmatic document, which did not analyze site-specific impacts, but specifies that site specific effects will be analyzed and mitigation measures will be developed on a site-specific project level scale. Biological evaluations will assess the impacts on sensitive animal and plant species and make determinations with respect to species viability and the potential trend towards federal listing. (FIG, para. 45,46, 47).

Non-Issue: No clear disagreement with the proposed action.

Response: The East Zone Botanist and Fisheries Biologist, and the District Wildlife Biologist will analyze the effects of proposed project alternatives on threatened, endangered and sensitive species and make determinations with respect to species viability and the potential trend towards federal listing, as required by Forest Service Manual (FSM) 2670.32, FSM 2672.42, and FSM 2670.3.

99. Second, because the Forest Service made numerous assumptions in modeling the 2004 ROD in the FSEIS that were not incorporated into the plan's standards and guidelines (SNFPC et al. 2004, pp. 110-113), the Forest Service should disclose the extent to which the Alder Creek project is consistent or inconsistent with the 2004 ROD as modeled in the FSEIS. For example, the environmental assessment should disclose whether any sugar pine larger than 6 inches in diameter will be removed in SPLATs, DFPZs, or defense zones; whether any trees larger than 20 inches in diameter will be removed in SPLATS; whether any trees larger than 24 inches in diameter will be removed from DFPZs, old forest emphasis areas, or the defense zone; and whether 50 percent canopy cover will be retained within old forest emphasis areas. (See SNFPC et al. 2004, pp. 111-112). To the extent that the Project is not consistent with the 2004 ROD, as modeled in the FSEIS, the environmental assessment must carefully analyze the differences, including cumulative impacts (FIG, para. 48).

Non-Issue: No clear disagreement with the proposed action.

Response: The EA will disclose the project's consistency with the 2004 SNFPA FSEIS ROD. The Alder Creek Project does not propose SPLATs or DFPZs. Trees larger than 24" dbh will be removed, as discussed in the Response to Comment # 50. FIG does not identify how the Alder Creek Project is not consistent with the 2004 ROD.

100. Third, the EA should disclose other important Standards and Guidelines contained in the specific Land and Resource Management Plan that are not identified in the 2004 ROD. An explanation of forest plan consistency should be provided with each site-specific analysis (FIG, para. 49).

Non-Issue: No clear disagreement with the proposed action.

Response: The EA will disclose consistency with the Tahoe National Forest Land and Resource Management Plan.

XII Aspen Restoration

101. FIG supports aspen restoration activities and recognizes the ecological importance of aspen habitat for dependant species, and the need to facilitate expansion of the type toward an acreage that approaches the natural range of variability, or the proportion of the landscape it occupied in pre-fire-suppression days (**FIG, para. 51**).

Non-Issue: No clear disagreement with the proposed action.

Response: The Alder Creek Project proposed action includes aspen regeneration, as described in the proposed action on page 3, #3, and in the Purpose and Need on page 10, #4.

102. The EA should: Establish District and Forest goals for desired condition of aspen communities including total acreage in the Aspen ecological type, and maximum acreage for any single restoration project (**FIG, para 52a**).

Non-Issue: No clear disagreement with proposed action

Response: Establishing District and Forest goals for desired condition and maximum acreages for individual restoration projects is outside the scope of this project. As described in the proposed action on page 3, # 3 and displayed on the project map, aspen restoration is proposed on 22 acres in units where risk of loss are the highest. Conifers 30 inches dbh and greater will not be removed to maintain stand diversity

103. Please provide us when available, with a copy of the EA, the biological assessment and biological evaluation for plants and wildlife, any fire report, silvicultural report, or hydrology report, any analysis of MIS/SAR, forest plan consistency checklist, and any separate cumulative effects analysis. We also request a list or index to the project file. We request color paper maps of the project and unit boundaries and a map of the important wildlife areas in (and near) the project area and analysis area. We also request the GIS data saved to a CD for unit and treatment boundaries (with group selection areas and groups identified, as well as DFPZs and other units) for this project and for other projects considered as part of the cumulative effects analysis (**FIG, para. 53**).

Non-Issue: Request for documents when available, no disagreement with the proposed action.

Response: We will provide you, when available, the requested documents. Note: As stated in previous responses, the Alder Creek project does not propose group selection or DFPZ construction.

104. It is unclear from the map you provided with the Project Summary how close the logging activities will get to the Tahoe Donner Subdivision, and consequently Truckee Sanitary District's (TSD) sewer pipelines. If the logging activities are to

encroach on any Tahoe Donner property, TSD would like to provide you with more detailed maps on the location of our facilities.

Non-issues: No clear disagreement with PA.

Response: In January 2006, Jerry Kent, Truckee Ranger District Timber Management Officer met with the TSD representative Mike White, to show him where we may need access across Tahoe Donner Association property (campground) to access a portion of the project area. Mike did not feel that crossing this location with equipment would adversely impact the TSD pipelines, but recommended that the FS contact TSD District Engineer, Blake Tresan prior to commencing project activities.

105. *The Truckee Donner Historical Society is in full agreement with the need for the project. The TDHS recognizes that the potential for damage to historical and archaeological resources is very high, and states that these resources must be protected. The TDHS (TDHS, Para. 2-8)*

Non-issue: No clear dispute with Proposed Action (PA), anticipated effects not clear.

Response: The Alder Creek proposed has been designed by the ID Team, including the Truckee Ranger District Archaeologist to protect heritage resources from damage during implementation of project activities. Proposed mitigation includes: non-ground disturbing harvest methods, e.g. over the snow, skyline, helicopter or hand methods. Fuels treatment methods in sensitive sites would include removing and piling slash and other fuels from the site and burning. Equipment exclusion (Tractor Keep Out) provisions would be included in contracts to protect sites from disturbance.

The proposed action includes measures to protect the California Emigrant Trail. Trees that are historic trail markers, i.e. with marker signs or blazes would be protected from harvest and prescribed burning. The District Archaeologist would designate locations where equipment may cross trails. The trail would be restored to the original state, if damaged during project activities. In portions of units along Alder Creek that are inaccessible by road, low-impact equipment would be allowed on the Commemorative Emigrant Trail, e.g. pick up trucks, or a mobile chipper. In the more accessible units, the District Archaeologist would designate locations where equipment may cross trails at a 90 degree angle. The trail would be restored to the original state after use, if any damage occurs from project activities.

NOTE: It appears that several, if not all of FIG's comments, are directed at a project other than the Alder Creek Project, and are therefore not specific to this project. For example, there are multiple references to: DFPZs, the HFQLG Pilot Project and checkerboard private ownership with SPI as the major private landowner in the vicinity of the project area,. As stated in the responses to these comments, the Alder Creek Project: is not part of the HFQLG Pilot Project; is not within the HFQLG Pilot Project Area; and does not propose DFPZ construction.