

Sagehen Project

Responses to Public Comments Received

A preliminary Environmental Assessment (EA) and supporting environmental analyses (resource specialist reports) for the Sagehen Project were provided to the public for comment during the 30-day comment period, pursuant to 36 CFR 215.6. The following individuals and organizations provided comments or expressed interest in the Sagehen Project during the 30-day comment period:

- Craig Thomas, representing Sierra Forest Legacy (SFL)
- Tom Downing, representing Sierra Pacific Industries (SPI)
- Jeff Brown, representing UC Berkeley Central Sierra Field Research Stations (UCB)

This appendix describes how comments have been considered in the environmental analysis for the Sagehen Project. Comments submitted by Sierra Forest Legacy, Sierra Pacific Industries, and UC Berkeley on the Sagehen Project preliminary EA and Forest Service responses are included in this appendix. Table 1 below identifies the general topics raised in the public comments and provides their page locations within this appendix.

Table 1. Document Contents

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A. MONITORING

Comment #1 (SFL): *There is nothing specific in the EA directly committing to post-treatment monitoring for marten in the Sagehen basin in the short or longer term. Sierra Forest Legacy requests an explicit commitment from the Tahoe National Forest to return to the post-treatment landscape for a period to be determined by the marten research community (post-treatment) and longer term (10 years?) to review the treatment outcomes and get a sense of marten presence in the restored landscape. Sierra Forest Legacy’s definition of “the restored landscape” includes the return of marten to these environments where they have been largely extirpated over the past 28 years. It would be a benefit to all collaborative partners to see proof that the Sagehen treatments benefited multiple objectives including fire resilience, increased forest complexity AND the return of this key furbearer to the Sagehen Basin.*

We request the Forest Service, PSW and UC Berkeley create a written, binding instrument in 2013 that commits the parties to two rounds of post-treatment monitoring for marten occurrence and habitat use

in Sagehen Basin. We request the Forest Service acknowledge this commitment in the Decision Notice for the Sagehen project.

Response:

As described in detail in Chapter 1 of the Sagehen Project EA, the project is being proposed to maintain and enhance habitat for the marten and other wildlife species associated with late seral forest habitat and to create heterogeneous forest stand conditions. A formal definition of ecological restoration is “the process of assisting the recovery of resilience and adaptive capacity of ecosystems that have been degraded, damaged, or destroyed. Restoration focuses on establishing the composition, structure, pattern, and ecological processes necessary to make terrestrial and aquatic ecosystems sustainable, resilient, and healthy under current and future conditions”(USDA Forest Service Manual 2020.5). For the Sagehen Project, the concept of stand-level ecological restoration focuses on creating heterogeneous forest stands representative of forest stands that developed under a more active fire regime. Therefore, forest stand species mixes, structures, and densities would vary depending on topographic variables, such as slope position, aspect, and slope steepness. While the project is designed to maintain and enhance habitat conditions for the marten and other wildlife species associated with late seral forests, increasing the marten population in the Sagehen Basin is beyond the scope of the proposal.

Treatment prescriptions under the proposed action (Alternative 1) are designed to create, protect, and maintain specific habitat features (dense cover areas, large woody material, and snags) that are particularly important for late seral species, including the marten and northern goshawk. The desired levels of these habitat features within the treated stands are based upon the relevant scientific literature and negotiations conducted during the collaborative process for the Sagehen Project. Each phase of Sagehen Project implementation would include both monitoring and mitigation measures (described in Chapter 2 of the EA) to ensure the desired numbers and configurations of these habitat features would exist after project implementation (both mechanical treatments and prescribed burning).

The Sagehen Project is unique, with its location within an experimental forest and its landscape-level objectives and treatments to reduce hazardous fuel loading and modify landscape-scale fire behavior, create heterogeneous forest stand conditions expected to develop under an active fire regime, and maintain and enhance habitat for sensitive species, particularly the marten and northern goshawk. The Pacific Southwest Research Station (PSW) and the Tahoe National Forest (TNF) agree, in principle, to collaborate on post-treatment monitoring, with design lead from PSW, that includes conducting a marten survey during the summer and winter after the final unit is treated. The relative contributions of personnel and funding from PSW and the TNF would be determined and negotiated at a later date. The Responsible Officials recognize the importance of species monitoring following treatments, and commit to exploring and attempting to secure sources of funding for this work. Finally, using collaborative expertise from both branches of the Agency and to the extent funding allows, the amount and distribution of predicted high quality habitat for marten in the Sagehen Basin would be tracked over time and a Basin-wide analysis of the connectivity of predicted high quality marten habitat would be conducted.

B. GOSHAWK PAC:

Comment #2 (SFL): *Sierra Forest Legacy does not agree with the prescriptions for the new NE Sagehen Goshawk Protected Activity Center. The NE Sagehen Goshawk PAC is mostly on a north-facing slope (Fire and Fuels report p. 19). An underburn prescription with no silvicultural treatment is what was presented and analyzed in the Fire and Fuels report (p.22 & 27). Table 4 in the Fire and Fuels report, (p.30) displays a surface fire prescription with high levels of high levels of snag and log retention (snags/10/ac and logs/5/ac) in the 32-acre burn unit. The NE Sagehen Goshawk PAC along with all the other Goshawk PACs in the Sagehen Basin has the “highest contribution to productivity” and “therefore should have a lower priority for treatment” according to the Forest Plan (Sagehen EA p. 144).*

The Sagehen EA Fire and Fuels report provides no information to suggest that avoiding mechanical treatment in the NE Sagehen PAC would compromise the landscape fire and fuels strategy. Further, the proposed prescribed burning of Unit 39 analyzed in the Fire and Fuels report did not suggest a need to do more aggressive treatments. Therefore, Sierra Forest Legacy rejects the need for a Forest Plan Amendment to mechanically treat the NE Sagehen PAC.

In addition, the underburn proposed in the Fire and Fuels analysis to the NE Sagehen Goshawk PAC better meets the objectives described in PSW-GTR-220 and 237) because it provides for both habitat heterogeneity and conservation of a multiple sensitive species. First, the underburning efforts in Unit 39 will provide the heterogeneity (patchiness) desired in GTR-220 recommendations although it may take 2 treatments to achieve this result. Fire will also achieve some mortality in the smaller size tree classes and will likely “select” less desired trees species such as white fir with lower hanging branches. Second, PSW-GTR-220/237 includes chapters on sensitive wildlife implying that projects should focus on the needs of multiple species. The proposal to override the needs of a newly arriving goshawk for some perceived benefit to Pacific marten is not promoted by these GTRs.

Forest Plan standard 73 allows for fuels treatments needed to meet project fuels objectives. These objectives would, by the nature of ladder fuels on the Sagehen project, target many of the trees that, incidentally, are trees targeted for ecological restoration therefore achieving (as a result of treating surface and ladder fuels) at least a partial restoration objective.

A plan amendment is not defensible unless not treating the PAC truly compromises the project’s landscape level objectives. As clearly shown in the fire and fuels report, limiting treatment of the PAC to prescribed fire would not undermine landscape level fuels objectives. We request the Forest Service reconsider this approach in the NE Sagehen Goshawk PAC. We believe there is room to incorporate this new goshawk location in the project’s landscape objectives and to follow the direction in the forest plan regarding treatment.

Response:

In 2011, an active goshawk nest with one fledgling was discovered, necessitating the designation of a new northern goshawk protected activity center (PAC). This PAC, known as the NE Sagehen goshawk PAC, encompasses all of Unit 39 (32 acres) and those portions of Unit 38 within emphasis areas 1, 4, and

5 (160 acres). The emphasis area 7 portions of Unit 38 (50 acres) are not within the PAC. Under Alternative 1, a portion of this PAC (160 acres in Unit 38) is proposed for mechanical thinning followed by prescribed underburning.

Based on this comment, the fire and fuels analysis for Unit 39 was carefully reviewed and an error was found in the assumptions that were made to model fire behavior in this unit. When the new goshawk nest site was discovered during project planning (which became the activity center for the NE Sagehen goshawk PAC), the originally proposed Unit 39 was expanded into an area that was formerly part of Unit 38, which had been proposed for mechanical thinning. The new treatment for the expanded Unit 39 was changed to prescribed underburning only. However, the fire modeling erroneously assumed that the expanded area of Unit 39 would receive its former Unit 38 treatment, i.e. a mechanical treatment followed up by prescribed underburning. Hence, as the commenter points out, the flame lengths presented in the Sagehen Project Fire/Fuels Report (Map 9, pg. 47) for the assumed mechanically treated portion of Unit 39 were less than 4 feet. The high severity patch within Unit 39 (indicated by flame lengths over 11 feet on Map 9 of the Sagehen Fuels Report, pg. 47) was the portion of the Unit assumed to receive an underburning treatment only (with no prior mechanical treatment). To correct this error, fire modeling (FlamMap) was re-run with the correct treatment (underburning only) for Unit 39. (The detailed analysis is presented in the Sagehen Fire/Fuels Report Addendum, April 29, 2013.) Based on the results of this modeling, which show flame lengths ranging from 17 feet at the cool end of the burn window to 73 feet at the hot end of the burn window, and the experience and professional judgment of the interdisciplinary team's fuels specialist, applying an underburn only treatment to Unit 39 would result in substantial adverse impacts to the habitat in this nest core area of the PAC. Hence, Unit 39 is no longer included in the proposed action and would receive no treatment under Alternative 1.

The NE Sagehen goshawk PAC was re-assessed to consider the feasibility of treating this area with prescribed underburning only, as suggested in this comment. The detailed analysis of underburning in this PAC is presented in the Fire/Fuels Report Addendum (April 29, 2013), which is available in the Sagehen Project Record. BehavePlus Model runs conducted for underburning in this PAC resulted in flame lengths between 6.4 and 8.5 feet, while FlamMap Model runs resulted in average flame lengths weighted across the PAC between 10 and 63 feet. These results indicate that an underburning treatment only would carry a high risk of substantial adverse effects on goshawk habitat in the PAC. Further, the SNFPA ROD standard and guideline for underburning in PACs (2004 SNFPA ROD Standard and Guideline #74, pg. 60) directs managers to minimize potential adverse impacts from prescribed burning on habitat in PACs: "In forested stands with overstory trees 11 inches dbh and greater, design prescribed fire treatments to have a flame length of 4 feet or less." Even at the cool end of the burn window, the potential flame length associated with an underburning only treatment in the PAC substantially exceeds this threshold.

As pointed out in this comment, SNFPA ROD Standard and Guideline #73 (which is proposed for a non-significant plan amendment under Alternative 1) allows mechanical treatments in PACs located in WUI threat zones where prescribed fire is not feasible (as discussed above) and where avoiding PACs would significantly compromise the overall landscape fire and fuels strategy. As part of the Sagehen Project

design, treatments in PACs have been largely avoided: there are five goshawk PACs in the Sagehen Basin. Four of the five PACs are avoided by the landscape pattern of fuels treatments while one PAC (the NE Sagehen goshawk PAC) is proposed for treatment. To answer the question of whether avoiding this PAC would “significantly compromise the overall landscape fire and fuels strategy,” FARSITE Model runs were done to compare landscape-scale fire behavior if the 160 acres of Unit 38 within the PAC were treated (mechanical treatment and prescribed underburning) versus if the entire PAC remained in an untreated condition (since, as described above, prescribed underburning only is not a feasible option). Under a scenario with a fire ignition starting on Highway 89 with a north wind during 90th percentile weather conditions (a threat identified in the purpose and need for the Sagehen Project, EA, page 13), fire would rapidly spread through the untreated PAC within 24 hours and would reach the Sagehen Field Station within 48 hours. Due to the projected fire intensities, suppression resources would be unable to directly attack the fire, allowing further fire growth. In contrast, FARSITE modeling of this ignition with 160 acres of the NE Sagehen goshawk PAC (Unit 38) treated shows the strategic value of treating this area, as fire spread is moderated when the modeled fire reaches treated Unit 38 and the other adjacent treatment units. The lower fire intensities under this scenario would result in the likelihood that suppression resources could use direct suppression tactics before fire reached the Lower Sagehen goshawk PAC, thereby insulating the Field Station from high severity fire. The detailed analysis of these scenarios is presented in the Sagehen Fire/Fuels Report Addendum (April 29, 2013), which is included in the project record.

Finally, the NE Sagehen goshawk PAC has been continuously monitored for occupancy since the nest site was discovered in 2011. Under the proposed action (Alternative 1), this PAC would be monitored to protocol for 2 years following the proposed mechanical treatment. If this PAC was found to be unoccupied after the first year’s survey, suitable goshawk habitat within the Sagehen Basin north of Sagehen Creek would be monitored the following year to assess goshawk presence.

Comment #3 (SFL): *Overall canopy reduction of 71% to 41% [in the NE Sagehen goshawk PAC] is cited in the Wildlife BE (p.125). The BE claims this would not result in a loss of suitable habitat (BE p. 125). This statement sounds like management for minimums and not management for persistence of goshawk as a serious part of the mix of issues in the Sagehen project. Beier and Drennan (1997) found in their study that goshawks preferred sites of >80% cover with mean cover in Ponderosa pine stands of 48% and with an aversion to canopy closure <40%. The authors warned against using 40% cover average as a target, since that was never the intention of the standard for goshawk or spotted owl (see CASPO Technical Report PSW-GTR-133 p. 25 in bold print).*

Response: The Biological Evaluation (BE) prepared for the preliminary Sagehen Project EA incorrectly reported a post-treatment canopy cover level of 41 percent for the mechanically treated portion of the NE Sagehen goshawk PAC in Unit 38 (Sagehen Biological Evaluation p. 125). This was a typographical error that has been corrected in the BE. The PAC includes emphasis areas 1, 4, and 5 within Unit 38 and it excludes emphasis area 7 in Unit 38. The weighted mean canopy cover of emphasis areas 1, 4, and 5 within the Unit 38 portion of the PAC would be reduced to 50.3% following mechanical treatments. This post-treatment canopy cover level is consistent with Forest Plan canopy cover retention standards and guidelines for mechanical thinning treatments (2004 SNFPA ROD pp. 50-51).

The core area of the PAC lies within Unit 39, and this unit is no longer proposed for treatment under any of the alternatives. Hence, the existing canopy cover of 71 percent in Unit 39 would be retained. The post-treatment canopy cover within the entire PAC, including Units 38 and 39 combined, would be 53.4 percent. This canopy cover level is in concert with recommendations by Beier and Drennan (1997) to manage goshawk habitat for canopy closure values above 40 percent.

C. MARTEN

Comment #4 (SFL): *All known marten natal and maternal dens require protection under the 2004 Framework ROD. Are there known marten dens in the Sagehen project area either identified by Katie Moriarty or past researchers?*

Response: No known marten denning sites have been documented in the Sagehen Project area. During a recent study on the marten population in the Sagehen Basin (Moriarty 2008), there were no recorded sightings of marten use in the northeastern portion of the Basin where the majority of the treatment units are located. Past researchers (Bill Zielinski, Wayne Spencer, and Sandy Martin) did not discover any marten reproductive dens in the Sagehen Basin during the periods when they were conducting their marten studies in this area ((Zielinski, pers. comm., April 12, 2013).

Should a marten den site be discovered during project implementation, a limited operating period would be observed for treatments to avoid conducting project activities during periods of marten denning, consistent with 2004 SNFPA ROD Standard and Guideline #88 (SNFPA ROD, pg. 62). The proposed action protects potential denning structures in the project area and applies specific prescriptions to enhance marten reproductive habitat, including the creation of short snags and the partial girdling of other trees. One of the primary purposes of the Sagehen Project, as described in Chapter 1 of the EA, is to maintain and enhance habitat conditions for the marten and other wildlife species associated with late seral forest conditions.

Comment #5 (SFL): *Fragmentation of key habitats has been a major concern since the remarkable decline in marten detection rates in the early 1980s--65% (Sagehen BE p. 159) to 4% in Moriarty's work in 2007-08 (Moriarty 2009). Past projects reduced canopy cover, patch sizes and arrangement and important structures such as large snags and logs. While the amount of habitat at the coarse scale of a CWHR label may not have changed much (BE p. 159) important features not usually captured by coarse filter habitat sensing (see M. North and P. Manly PSW-GTR-237 chapter 6) may have changed significantly (Moriarty et al. 2011). It is those features including distance between features and size and spatial arrangement of patches resulting from the vegetation treatments since the 1980s (Sagehen vegetation report p. 122) which have had lasting impact on marten habitat and occurrence. This is why it is inappropriate to rely upon coarse filter CWHR strata label change as the primary indicator of impact to the marten in the Sagehen project.*

The 2004 ROD p. 53 Standard 27-28 requires the Forest Service to assess impacts from fragmentation and impediments to movement for old forest associated species. The Forest Service concludes that there will only be minimal fragmentation impacts to marten from the Sagehen project (Wildlife BE p. 159). In

order to affirm that marten are likely to traverse the Sagehen landscape the Forest Service must conduct a reasonable corridor and movement analysis based on the best available habitat information and modeling tools. This has not been adequately done for the Sagehen project. Corridor distances of < 2 km may represent impediments to dispersal in a recent marten study in the Sierra Nevada (Kirk and Zielinski 2010). A "least-cost" modeling approach should be applied to the Sagehen project to support the notion that there are minimal impacts (further isolation, impediments to movement) from the proposed treatments (see Spencer and Rustigan-Romsos 2012 available at: www.sierraforestlegacy.org). Estimates of patch size, distance between patches, retention records of key structures (logs, snags, high stumps) based upon marking records and design layout would also better inform the characterization of fragmentation risk in the short to long term.

Response: The CWHR classification system is one of a number of indicators used to assess the effects of the Sagehen Project alternatives on the marten. The marten analysis presented in the Sagehen Project BE is informed by a mixture of coarse and fine scale information and data. The BE acknowledges that CWHR classes are a coarse scale indicator; however, important microsite habitat components are also described, including the abundance and distribution of snags and down logs, large tree distribution, creation of high stumps, and residual canopy cover estimates. Generally, Alternative 1 would maintain all existing snags larger than 15 inch dbh, except for those needing to be removed for equipment operability or those that posed a risk to public safety. It is expected that there would be no measurable difference in the number of snags greater than 15 inches dbh between the existing condition and the immediate post treatment condition.

The least-cost corridor modeling approach used by Kirk and Zielinski (2010) also used the CWHR classification system to model marten habitat connectivity. While dispersal corridors less than 2 kilometers may pose a risk to dispersing marten, it should be noted that none of the treatments proposed for the Sagehen Project would reduce existing corridor widths. None of the proposed treatments would reduce cover to a point that would prevent marten movement or use across the Sagehen landscape. Although, martens have generally been characterized as preferring habitat with moderate to high canopy cover (greater than 50 percent), they are known to use a wide variety habitats and conditions, including the use of conifer forests with canopy cover less than 30 percent to over 70 percent and areas dominated by shrub cover. Additionally, the majority of studies indicate that marten habitat fragmentation results from large openings created by clearcut harvests, not forest thinning treatments as proposed. Researchers found that landscapes with openings that covered more than 25 percent of the area limited habitat suitability for marten (Heinemeyer 2002, Potvin et al. 2000, Hargis et al. 1999, Chapin et al. 1998). Creation of large openings at this scale is not being proposed for the Sagehen Project; hence, marten habitat fragmentation is not expected under implementation of any of the proposed alternatives. For the Sagehen Project analysis, the distribution, size, and amount of early seral openings on marten habitat fragmentation is described in terms of marten movement impediment (BE, pp. 176 and 181). The BE states that the small size of early seral openings would not impede marten movement, which has been substantiated by preliminary studies on marten movement in the Sierra Nevada indicating that 60 meters may be the maximum size of openings that martens will not cross (Moriarity, pers. comm., April 2013).

Furthermore, project treatments were explicitly developed to maintain and enhance marten habitat within the Sagehen Basin, both at the landscape and microsite scale by maintaining desired canopy cover densities, promoting large legacy trees, maintaining existing coarse wood, creating decadent feature enhancements (partial tree girdling and short snag creation), and designating dense cover areas. Based upon all the project design criteria explicitly designed to enhance marten habitat (legacy tree treatment, dense cover areas, snag and down log retention, snag creation, etc.), habitat connectivity for the marten would be maintained in the short and long term.

To better inform potential marten habitat fragmentation risk associated with the Sagehen Project in both in the short- and long-term, FRAGSTAT (Version 4) modeling was conducted to estimate patch size, patch distribution, and distance between patches of high and moderate marten habitat within the Sagehen Basin, in a similar way that Moriarity et al. (2011) assessed marten habitat fragmentation within the Basin. Existing high and moderate quality marten habitat was analyzed immediately post-treatment and 30 years post-treatment to assess effects from treatments on potential marten habitat fragmentation. Overall, the FRAGSTAT modeling results indicate that marten habitat connectivity would be maintained following the treatments and 30 years into the future. Key results from the FRAGSTAT modeling include the following:

- High quality habitat only decreased by 0.1 percent across the landscape immediately post-treatment and increased to by an additional 0.5 percent 30 years after treatment.
- The large patches of habitat remained constant across the landscape both following treatment and 30 years into the future.
- The percentage of core area decreased from 4.12 percent to 3.4 percent initially after treatment and was predicted to increase to 4.9 percent 30 years after treatment.
- The distance to the nearest patch increased slightly immediately following treatment, but decreased to less than existing patch distance 30 years later. The distribution of patches changed very little. Additionally, proximity of high quality patches to one another improved both post-treatment and 30 years into the future.

Details of the FRAGSTAT modeling methodology, assumptions, and results are included in the Sagehen Project BE.

Finally, as suggested in this comment, retention records of key structures (logs, snags, high stumps) based upon marking records and design layout would be kept for this project. Treatment prescriptions under the proposed action (Alternative 1) are designed to create, protect, and maintain specific habitat features (dense cover areas, large woody material, and snags) that are particularly important for late seral species, including the marten and northern goshawk. The desired levels of these habitat features within the treated stands are based upon the relevant scientific literature and negotiations conducted during the collaborative process for the Sagehen Project. Each phase of Sagehen Project implementation would include both monitoring and mitigation measures (described in Chapter 2 of the EA) to ensure the desired numbers and configurations of these habitat features would exist after project implementation (both mechanical treatments and prescribed burning).

D. ECONOMICS

Comment #6 (SPI): *The economic report calculated a mechanical thinning cost for both logs and biomass on a per acre basis. My analysis of these costs for alternatives 1 and 3 are 25% more than the agency's estimate of \$1,066 per acre. Based on my mechanical thinning costs both alternatives would have a project cost well in excess of the budget of \$750,000 over five years the life of NEPA. Revising the mechanical thinning costs for the biomass to include cutting, skidding, and burning, the resulting project cost would be well within the stated five year budget. As a result of the collapse of the current biomass market and higher operating costs associated with its harvest, we request that the agency develop a fourth alternative which requires this material to be removed to a landing and burned.*

Response: In the Sagehen Project Alternatives 1 and 3, biomass is required to be removed to the landing in order to meet project goals. There is no requirement under either alternative for the biomass to be removed *from* the landing. This was intentional to allow the biomass to either be burned or removed if a market were to become available. The resources that are most affected by these options are project economics and air quality. For other resources, there are minimal to no differences in effects between the biomass remaining on the landing or removing it from the landing.

For the Sagehen Air Quality Report, three options for potentially burning biomass at the landings were considered, with the option resulting in the greatest potential effects on air quality analyzed in detail (Air Quality Report, pg. 9). Emissions from the landings were analyzed for the largest piles that would be burned, where all biomass would be burned at the landing. It was determined in the Air Quality Report that even if all of the biomass were burned at the landing, no significant effects on air quality would result.

We fully recognize that one of the results of the collapse of the current biomass market is higher operating costs associated with biomass harvest. The Sagehen Project Economics Report's primary purpose is to compare the project costs between alternatives. Even though it is stated that, if the project costs greatly exceed \$750,000, the ability for the Truckee Ranger District to implement the decision in full within 5 years is improbable, that estimate is not a "hard cap" on the costs of the project. The District is actively pursuing additional funding for project implementation, which would effectively raise the acceptable operating costs of the project. While markets are continually changing, the analysis presented in the Sagehen Project Economics Report remains valid because it provides a comparison of the alternatives based on the same metrics at the same point in time, thus showing the relative differences between alternatives that can be used to inform the decision.

Even though the biomass market is not available currently, it is the Tahoe National Forest's intention to actively pursue options for biomass utilization, such as the potential new biomass facility in Placer County. If new markets become available, this would allow funds generated from products to go into project service items via stewardship contract authority.

Because the two action alternatives (Alternatives 1 and 3) incorporate the option of burning biomass material at the landing, the fourth alternative suggested by the commenter is not needed.

E. SUPPORT FOR THE PROJECT

Comment #7 (UCB): *The University of California, Berkeley – Sagehen Creek Field Station enthusiastically supports this set of recommendations and strongly supports the stated selected alternative. With this said, we also feel very strongly that for this project to have a chance of meeting its stated objectives, it needs to get fully implemented within a 3 to 5 year period from start to finish.*

The decision by the Truckee Ranger District of the Tahoe NF to employ a collaborative process to design the project is to be commended. The interests of the Sagehen ecosystem were well-represented by this engaged and active collaborative group. I also feel very strongly that this collaborative process was key in helping us work towards a more holistic project design that actively incorporates many complicated needs and objectives.

I will also state that this process was not easy for anyone involved. Ecosystems are very complicated, as we do not yet fully understand how they work; or how pulling on one string will affect the other strings. Working together helped the group to focus and to push everyone's comfort levels. This, in turn, also helped us focus our energies and efforts to clarify what the key issues were, then to work towards effective solutions to adequately address these issues. It is also safe to say that no one got exactly what they wanted out of this. Everyone needed to shift and accept ideas in order get a reasonable project created. This enabled us as a group to come up with a very reasonable approach and much better and more effective proposal/plan. So, maybe we all did actually get what we wanted, a reasonable and well thought out approach to address a very complicated and emotional issue. This is all well-documented in this document.

Response: Thank you very much for your supportive comments. We agree that a 3- to 5-year implementation is the most desirable timeframe. While it is likely that much of the project would be implemented within that timeframe, some items, such as underburning, might not be complete. In order to meet fire/fuels prescription objectives, specific weather conditions need to occur in order to underburn. Since the conditions may not occur every year, timeframes of implementation could be extended.

We agree the collaborative process helped produce a very well thought-out and reasonable project. The collaboration group was very engaged which helped drive the innovation and creative solutions to issues that, in some cases, were perceived as mutually exclusive. Even though, as mentioned in this comment, it was not an easy process, it was a positive experience for the Tahoe National Forest and the Pacific Southwest Research Station. The working relationships forged throughout the process are ones we hope to build upon in the future.