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Subject: Hume Hazard Project Appeal by Sequoia ForestKeeper, the Kern-Kaweah Chapter of the Sierra Club, and the John Muir Project of Earth Island Institute

Sequoia ForestKeeper (SFK), the Kern-Kaweah Chapter of the Sierra Club (SC), and the John Muir Project of Earth Island Institute (JMP) submit this administrative appeal in accordance with the requirements of 36 C.F.R. § 215, *et seq.*, and the content requirements of 36 C.F.R. § 215.14. This is an appeal of the decision by Teresa Benson, District Ranger of the Hume Lake Ranger District of the Sequoia National Forest, to proceed with the “**Hume Roadside and Recreation Site Hazard Tree Removal Project**” (or “Hume Hazard Project”), signed on September 26, 2013. SFK, SC, and JMP request that the Appeal Deciding Officer halt implementation of the project and remand the decision to the District Ranger to demonstrate compliance with the National Environmental Policy Act (NEPA), the Giant Sequoia National Monument (GSNM) Proclamation, the GSNM Management Plan Standards, as well as other concerns raised in our appeal points below. As relief, we request a remand of the decision with instructions to select and implement Alternative C, which permits the necessary treatments but without tree removal.

Appeal Deadline Extension – This Appeal is Timely

The original appeal due date was extended by 16 days due to the government shutdown, resulting in a new appeal deadline of November 27, 2013. Therefore this appeal is timely.

INTRODUCTION

Sequoia ForestKeeper, Sierra Club, and John Muir Project would like to convey our grave disappointment that the first mechanical treatment decision in the Giant Sequoia National Monument since the Forest Service issued its new Plan Decision would result in a decision to remove and sell trees when all evidence suggests that the Hume Hazard Project should be implemented without tree removal. In our previous comments, we commended the Forest Service for its development of Alternative C and also for providing a more accurate picture about the socioeconomic conditions and the issue of “trust.” Unfortunately, our trust that the Forest Service intends to faithfully implement the intent of the Monument Proclamation and the GSNM Plan has been severely eroded with the decision to select Alternative D, which cannot be justified under the GSNM Plan’s Decision Tree, the Removal Criteria, and other plan standards.

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STATEMENT OF REASON

Project-Level Issues

I. Violation of GSNM Plan Requirements

- A. The selection of Alternative D violates the GSNM Plan because the “Decision Tree” allows mechanical treatments *with* tree removal only if treatments *without* removal cannot meet the purpose and need, as Alternative C can.**

The GSNM Plan states that “Mechanical treatment with tree removal (Box #4 [of Figure 4, p. 81]) will *only be considered if other methods do not meet ecological objectives in the project purpose and need.*” GSNM Plan, p. 82 (emphasis added). The environmental analysis and the decision are arbitrary and capricious because they fail to provide any determination that mechanical treatment *with* tree removal, as suggested by Alternative D (the selected alternative), is necessary and that mechanical treatment *without* tree removal (Alternative C) cannot meet ecological objectives or the purpose and need of the proposal.

We agree that managed wildfire and prescribed fire methods (Boxes #1 & #2, p. 81) will not meet the ecological objectives of the project’s purpose and need due to the inherent nature of a hazard tree abatement project geared towards public safety. But it is clear from the analysis that

“Mechanical Treatment Without Tree Removal” alone (Box #3, p. 81), as proposed in Alternative C, provides an acceptable risk, would be effective, and is feasible to meet the ecological objectives of the Hume Hazard Project’s purpose and need:

The use of mechanical treatment without tree removal will be assessed in a manner similar to the use of managed wildfire and prescribed fire, to determine if it would reduce risk and improve effectiveness and/or feasibility. The evaluation will consider combining mechanical treatments with other management tools to meet the purpose and need for the project.

Id., p. 82. While Alternative D (“Mechanical Treatment With Removal”) would also meet the purpose and need, the GSNM Plan precludes its selection because it can “only be considered if other methods do not meet ...the project’s purpose and need.” *Id.*, p. 82. For the Hume Hazard Project, because Alternative C will meet the project’s purpose and need, the Decision Tree compels its selection.

This conclusion is supported by the Forest Service’s own environmental analysis:

Alternatives C and D best meet the intent of the purpose and need to maintain safe public access along roads and in developed recreation sites in this portion of Giant Sequoia National Monument, because they propose treatments on the most acres.

Id., pp. 18-19. Moreover, staff at the Hume Lake Ranger District, including former District Ranger John Exline, admitted to us that the Hume Hazard Project could be effectively implemented without tree removal:

[John Exline] also said that it is possible and even feasible to eliminate the falling hazard from those identified hazard trees by felling them and leaving them where felled. And you said that it is possible and feasible to just fell and leave and then burn the slash, limbs, and tops to reduce any fire-hazard. Moreover, you said that many of the trees proposed for felling would probably be left in place or pulled away from the road after felling.

Exhibit A – Declaration of Ara Marderosian and René Voss.

For those reasons alone, the GSNM Plan, statements in the EA, and admissions by Forest Service staff should dictate selection of Alternative C, the method without tree removal. Otherwise the Decision Tree would have no meaning and would provide little context in applying the strictures of the GSNM Proclamation, which allows the removal of trees only if “clearly needed for ecological restoration and maintenance or public safety.”

Here, the only factor asserted to support selection of Alternative D (and B) to meet the purpose and need over a non-removal Alternative C is potential lower cost. But lower cost, which here is both speculative and nominal at best, is not a factor that the decision-maker can considered in applying the Decision Tree because Alternative C is feasible, albeit at a slightly higher cost.

Here, the conclusion must be that Alternative C is the best choice in applying the intent of the Monument Proclamation and the Decision Tree because the analysis supports a finding that Alternative C provides an acceptable risk, is effective, and is feasible in meeting the project's purpose and need. Moreover, Alternative C requires no other tools to meet the purpose and need because all tools are already available without the need to remove trees from the Monument. All factors in the Decision Tree therefore dictate selection of Alternative C over Alternative D.

1. Alternative C is effective and creates an acceptable risk

The purpose and need for the Hume Hazard Project is clearly for public safety and not ecological restoration or maintenance:

- Maintain safe public access on routes to and through this portion of the Giant Sequoia National Monument.
- Maintain safe public use of developed recreation sites.

EA, p. 6. In light of those purposes and needs, any tree removal for ecological restoration or maintenance should not even be a factor in the design and implementation of this project. As already stated above, the Forest Service has concluded that Alternative C meets the purpose and need from a public safety perspective. Moreover, it has also concluded that "Mechanical treatments without tree removal would be effective in maintaining safe public access by alleviating the danger of falling trees or limbs." EA, Appx. A, p. A-2.

The Decision Tree analysis in Appendix A with respect to "mechanical treatments without tree removal," however, is fatally flawed because it fails to reflect the actions proposed in Alternative C and only analyzes the limited scope of felling and leaving trees where they are felled:

However, leaving the felled trees on-site could create a fire hazard or attractive nuisance, or hinder the operation and maintenance of recreation sites. Large down logs adjacent to roadways would add to existing fuel loads, make fire control and emergency evacuation more difficult, and could provide hiding cover for wildlife, which can increase the potential for vehicle accidents. The trees identified as falling dangers to people are dead or dying and, if left on the ground as down wood, would continue to provide a vector for insects (current infestation of bark beetles) and disease (annosum). The increased costs for moving downed trees to different locations to mitigate the hazard (rather than piling them for removal) would make this infeasible.

Id., p. A-2. But Alternative C includes actions that would address these concerns:

Along the roads, a portion of the felled trees may be removed as firewood under the terms and conditions of personal use firewood permits.... [T]here are two other options that may be considered for excess down woody material in giant sequoia groves and campgrounds:

1. Move the material to another location in the Monument where it can be removed by firewood cutters or burned.

2. Grant special permission for firewood cutting in all areas except the sequoia groves (except Indian Basin Grove), as applicable.

EA, p. 15. Moving material to other locations in the Monument is clearly contemplated in this alternative:

The trees felled in the developed recreation sites need to be moved out of these sites, and a portion of these trees could contribute to meeting the down woody debris component outside of the recreation site boundaries.

Silviculture Report, p. 13 (discussing Alternatives C & D).

Moreover, there is no analytical support provided anywhere in the analysis that simply pulling trees back away from the road to avert concerns over hiding cover and vehicle collisions is somehow ineffective or even infeasible. Such a conclusion is arbitrary and contradicts the range of actions proposed in Alternative C. In fact, the economic analysis includes a nominal cost for “Repositioning Material for Safety,” (EA, p. 53, Table 6), which is factored into the overall implementation cost for Alternative C, meaning it would be effective and feasible.

All other statements in the Appendix A “clearly-needed” analysis for Alternative C apply equally to Alternative D, which also requires leaving sufficient large down logs to meet the 10-20 tons/acre plan standard. And because “the existing level of large down woody debris along the roads is low,” (EA, p. 30), the plan standard requires leaving a substantial proportion of the large down logs, making the effects from Alternatives C and D with mitigations mostly indistinguishable:

The fire behavior characteristics the alternatives would experience in the event of a wildfire would be the same across all alternatives. Fine fuels are the primary component and carrier in the spread of wildfire. The Hazard Tree Project would only add additional large diameter fuels to the existing surface fuel bed. The action alternatives would not introduce enough additional fine fuels to increase the fuel loading or fire behavior characteristics within the project area. The methods to dispose of fine fuels do not differ between the action alternatives.

Fire and Fuels Specialist Report, p. 18.

Moreover, the Decision Tree only requires a determination that the proposal creates an acceptable risk and is effective; it does not require selection of the alternative is “most effective” or “most efficient/feasible” (although we would argue that Alternative C is also the most effective alternative in achieving ecological needs because it leaves the most large down woody material):

Alternative C proposes to mitigate danger tree hazards that threaten safe use of the forest transportation system by felling the dead or damaged trees that are susceptible to falling onto roadways or recreation sites, and are therefore deemed hazardous to people....

Downed trees would be left on site to ensure that dead and down woody material requirements for wildlife and soil quality are maintained.

EA, pp. 13-14.

The amount of down woody debris available to wildlife is expected to be highest in this alternative [Alt. C], potentially creating better habitat for prey species.

Wildlife BA & BE, p. 31. Alternative C is therefore ecologically superior in meeting the Plan's large down log standard. And given the fact that all alternatives must meet this standard, even along roads, all of the alternatives likely will result in a similar risk that some wildlife will forage along roads, which puts these species at an equal risk for collisions with vehicles under all alternatives. The only way to mitigate these risks in all alternatives is to reposition and pull the large downed logs a sufficient distance away from the roads, which is contemplated for Alternative C.

Therefore, Alternative C creates an acceptable risk relative to the other alternatives and is effective in meeting the purpose and need.

2. Alternative C is feasible

Alternative C is feasible even though it would not remove and sell trees, as explained above. This conclusion is also supported by the admission of former District Ranger John Exline, that felling and leaving the trees where they are felled or pulling them back from the road is feasible. See Exhibit A, p. 2. This was an assumption going into the environmental review process, and is supported by the EA and the Socioeconomic Report.

The EA is in error in suggesting that the decision-maker must select the "most effective and efficient" alternative in considering the "Decision to be Made":

Given the purpose and need, the deciding official will review the proposed action and the other alternatives in order to make the following decision: Which alternative will be *the most effective and efficient* in mitigating threats to public safety from hazard trees and protecting the objects of interest in the Giant Sequoia National Monument?

EA, p. 7. But this statement contradicts the strictures in the Decision Tree, which only require that the project create an acceptable risk, is effective, and is feasible. The Decision Tree and its factors do not allow the decision-maker to base its decision on selecting the most efficient alternative, which makes sense, because it would always compel the decision-maker to select the lowest cost alternative, and it would negate the Decision Tree's requirement to select a project alternative that can meet the project's purpose and need without removal when it creates an acceptable risk, is effective (not the most effective), and is feasible (not the most efficient).

In other words, if a decision-maker were required to always choose the “most efficient” mechanical treatment alternative, without the constraints of the Decision Tree, he/she could never choose the alternative that would leave trees because removing and selling those trees would always lower the cost of project implementation, making it the “most efficient.” The decision-criterion in the EA, suggesting selection of “the most effective and efficient” alternative, therefore directly contradicts the GSNM Plan’s requirements imposed in the Decision Tree, and it cannot be applied to the Hume Hazard Project. The application of the decision-criterion in the monument as suggested in the EA, therefore, violates the GSNM Plan.

Alternative C is also feasible because it can mitigate any concerns about increasing hiding cover near roads or any asserted increases in risk from vehicle collisions by pulling the felled trees a safe distance away from the road. This is an action that is contemplated in Alternative C and is factored into the overall project cost. *See* EA, p. 53, Table 6. Moreover, there is no data or analysis provided that shows that it would be “infeasible” to move some of these trees to other parts of the Monument to meet ecological needs. *See* EA, Appx. A, p. A-2. The Forest Service’s statement to the contrary is therefore arbitrary and capricious.

3. Alternative C requires no “Other Tools Needed to Meet the Purpose and Need” that aren’t already available

In the description of Alternative C, the only tool needed in addition to mechanical treatment without removal is the ability to reposition material for safety or potentially remove material to another location in the Monument. But these tools are already available under Alternative C. *See* EA, p. 15; *see also* EA, p. 53, Table 6 (“Repositioning Material for Safety”). There is no need for any additional tools, such as removal of trees from the Monument, since they can be repositioned or retained in the Monument, as needed elsewhere.

For these reasons, the analysis and decision to select Alternative D is arbitrary and capricious and in violation of the GSNM Plan’s Requirement in its Decision Tree because Alternative D’s inclusion of tree removal is not the “only” method that can achieve the purpose and need, since Alternative C will achieve the purpose and need without tree removal. We therefore request that the Appeal Deciding Officer remand the decision with instructions to select Alternative C. Alternative C creates an acceptable risk, is effective, is feasible, and requires no other tools to meet the purpose and need.

B. The decision violates the GSNM Plan and NEPA because it fails to support the “removal” decision with sufficient information at the time of decision

“[F]or every site-specific project in the Monument, decisions for fuels treatments that include tree removal must be based on determinations that they are “clearly needed for ecological restoration and maintenance or public safety” (Clinton 2000, p. 24097).” GSNM Plan, p. 51. Moreover, “[a]ny treatments that involve the removal of trees from within the Monument area, including both standing trees and downed logs, will only be permitted *following a determination* that removal of the trees is ‘clearly needed for ecological restoration and maintenance or public

safety' (Clinton 2000, p. 24097)." *Id.*, p. 78 (emphasis added). Moreover, it also states that "An evaluation of clear need is required and will be completed *before any site-specific projects that propose tree removal take place in the Monument.*" *Id.*, p. 79 (emphasis added). Each of the removal criteria also focuses the determination on "one or more trees" at the "site," which infers that the determination must be made on a site by site basis. And, "[t]he decision to remove trees from the Monument is separate from the treatment decision." GSNM FEIS, Appx. L, p. 570.

In other words, the GSNM Plan allows removal of one or more trees from the local site or the Monument only following a determination that it is clearly needed before or as a part of the site-specific project decision, and not some later time.

But the decision that selected Alternative D, allowing for tree removal, has put off the removal decision based on a future analysis that has not been disclosed in the EA or in the decision:

Some of the downed trees would be left on site to ensure that the dead and down woody material requirements of 10 to 20 tons per acre for wildlife and soil quality are maintained. *To better track the amount of down woody debris post project, Forest Service personnel are scheduled to conduct monitoring during and after project implementation to ensure the standard is being met.*

DN, p. 2 (emphasis added). In other words, the decision explicitly admits that the Forest Service has not made its removal determination at the time of the decision. In fact, it even suggests that monitoring to meet the plan standard of 10 to 20 tons per acre for wildlife and soil quality may not even be conducted until "after" project implementation. This was also confirmed in a voicemail left by ID Team Leader, Marianne Emmendorfer:

I checked with folks here, and for down woody debris, generally there's no formal analysis during or after a project like this for implementation. It's really based on the expertise of the sale administrator and folks like that out there implementing the project, and (it's part of, you know) ... as they become qualified for those kinds of positions, I'm thinking a lot of experience and of course with their education, they are still using the calculation just like we did in that transect of the diameter of the material, the length of the material, to come up with the volume estimate of down woody debris, so they are doing that formally or informally as they work their way through the project. And so hopefully that answers your question, and so that description from the Silviculture Report and project record, that's your answer to how are we're going to deal with the down woody debris and it really is the expertise of the folks on the ground implementing the project to make sure we're meeting that standard. ...

Transcription of Nov. 21, 2013 Emmendorfer Voicemail left with René Voss; *see* Attached Voicemail as Exhibit B – Emmendorfer Voicemail from Nov. 21, 2013.mp3.

This is a clear violation of the GSNM Plan's removal strictures that require the clearly-needed-removal-determinations "before any site-specific projects that propose tree removal take place in the Monument." GSNM Plan, p. 79.

With its statement that it will “conduct monitoring during and after project implementation to ensure the standard is being met,” the Forest Service seems to assert that it somehow cannot make the removal determination until later when it determines whether sufficient large down woody material would be left on site. But it is possible (and necessary) to make this determination before the decision for removal is made as the Forest Service has already demonstrated in the analysis. There, it has estimated that, on average, the project area within 1/4 mile markers where hazard trees will be felled contains roughly 7.68 tons/acre of large down woody material to support the standard. Given such a precise estimate and given the exact species, diameters, and height of each of the 250 trees proposed for felling along roads, the specialists in the Sequoia National Forest should be able to easily calculate the tonnage of large down logs before the trees are felled.

Moreover, without the determination as a part of the environmental analysis and decision, the Forest Service will not be able to determine whether the project can be implemented as a timber sale, a service project, or whether it will have to use force accounts to use Forest Service personnel to implement the project. According to Teresa Benson, it may be a combination of these (pers. communication on Nov. 22, 2013), but this still requires data about the tonnage of down logs in advance of selecting any of those tools.

To properly make the determination which “one or more trees” may need to be removed, the Forest Service must first do the analysis as part of the EA or decision and disclose at which sites the 10 to 20 tons per acre standard would be met and which “one or more trees,” if any, could potentially be removed after the standard is met.

In our comments to the preliminary EA (PEA), we asked for this analysis after conducting a rough estimate of our own:

Instead of using our rough estimate, the Forest Service should provide calculations using the actual data and weight for each tree, since this data is highly relevant to the decision to either remove or retain felled tree boles. This should be possible since the dbh, height, and species of tree are provided in the hazard tree inspection forms.

We urge the Forest Service to:

- a. Calculate the average large down material tonnage if all hazard tree boles are felled and left – adding to the current average of 7.68 tons/acre as reported in the PEA.
- b. Provide data or calculate estimates of current localized tonnage of downed logs in areas where trees are planned for felling.
- c. Determine how many tons of large trees boles are needed to meet the 10-20 tons/acre standard, on average and in localized areas where trees are planned for felling.

In making these calculations, please explain how you derived the results and how you determined the weight in tons based on tree diameter, height, and species. Also, we urge you to provide the size and weight of the average hazard tree in the list, and calculate how many average-sized it would take to get the entire project area up to the minimum 10-20 tons/acre as required by the GSNM plan standard.

SFK & SC PEA Comments, p. 9. And while a portion of this comment was included in the response to comments (*see* EA, Appx. F, p. F-8), the Forest Service has not offered any methodology, estimates, or discussion in the EA about how it will determine whether the standard will be met. The response and citations to other portions of the EA are completely unresponsive to these concerns and requests.

Instead, the Forest Service apparently does have some basis for how many trees can be removed as it intends to schedule a timber sale based on a specific estimate:

An estimated 2,000 CCF of wood from trees felled along roadways and in the organizational camp and campgrounds would be removed as logs over the next two years.

DN, p. 3 (describing the decision and selection of Alternative D). This is a remarkable and highly biased statement in support of removal/logging when the existing estimates of large down logs show only 7.68 tons/acre along segments of road where hazard trees are proposed for felling. This is especially remarkable, given that we have provided undisputed calculations that the Forest Service cannot meet the large down log standard across the project area even if it leaves all felled trees on site. Provided that the Forest Service has already decided how much timber it will remove without first determining whether or not it has met its large down log standard, the decision to proceed with a project that includes tree removal shows bad faith in implementing the Decision Tree and the strictures in the Monument Proclamation.

The decision allowing the determination about removal to be made later, and not as a part of the decision, also violates NEPA because the decision-maker does not have all of the necessary data on hand to make the removal decision at the time of the decision.

C. The analysis provides no clear criteria for the removal determinations, which are arbitrarily left to individuals implementing the project rather than the District Ranger at the time of decision

As stated above, we asked for an analysis and methodology in the EA for how the Forest Service would determine the tonnage of each tree, which trees would be left, and how the down woody material standard would be met. But no such analysis was provided in the EA.

NEPA requires that agencies “identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the [impact] statement.” 40 C.F.R. § 1502.24. This standard applies to Environmental Assessments as well as Environmental Impact Statements. *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1150-

1151 (9th Cir. 1988). NEPA requires agencies to disclose their methodologies and disclose the underlying hard data from which the agency derives its opinion. *Id.* at 1150.

Instead, based on the EA and decision, the determinations for the weight of logs and calculations regarding on-site down logs will be left to those who will be implementing the project without any upfront data or any specified methodology:

Forest Service personnel are scheduled to conduct monitoring during and after project implementation to ensure the standard is being met.

DN, p. 2.

Over the phone, ID Team Leader Marianne Emmendorfer told me on November 13, 2013, that the Forest Service does have a methodology for determining the weight of trees, which differs from the estimates we calculated and submitted with our PEA comments. That methodology should have been disclosed in the EA or Silviculture Report, but it is absent. Moreover, as Ms. Emmendorfer stated in her November 21, 2013 voicemail, the determinations made in the field by “the sale administrator” or other folks with expertise will use estimates similar to those done in the Silviculture Report, which were based on transects along roads. This post-hoc explanation is not only incomplete, it is also insufficient “to ensure that the dead and down woody material requirements of 10 to 20 tons per acre for wildlife and soil quality are maintained.” DN, p. 2.

These removal determinations, however, should not be made in the field during implementation monitoring because they can and should be made by the District Ranger before the decision is made. Moreover, the large down log standard must be gauged at the overall project level and cannot be made only at individual sites. Therefore the calculations necessary to make the determination cannot be made during project implementation, and they certainly cannot be made after implementation.

On November 22, 2013, Teresa Benson confirmed that the Forest Service agrees that the downed log standard applies at the overall project level (personal communication with René Voss). She also agreed that, in order to meet the standard at the time of implementation, the Forest Service would first have to determine what the baseline amount of large down woody material is in the overall project area in order to determine whether they would meet the standard with the trees proposed for felling.¹ She was unclear whether the baseline inventory/monitoring of large down logs would have to be repeated if implementation would take more than one season.²

And even though Ms. Benson asserts that the tonnage of down logs changes over time based on changing conditions and that the Forest Service must wait to inventory the down logs at some future time, this argument falls flat for several reasons. First, the standard is a range of 10 to 20 tons per acre, which provides some flexibility to make adjustments in the future. And second,

¹ Without any additional data, the Forest Service must assume the baseline amount of large down logs across the project area is 7.68 tons/acre.

² Given this and Ms. Emmendorfer’s uncertainties about the methodology, it is unclear whether any real methodology even exists.

unless there is a major event that either greatly increases or decrease the large down log component in the forest, such as a major winter storm or a fire that burns through the area, the large down log component will not likely change from year to year. So it is possible to provide a reasonable estimate of the tonnage of large down logs at the time of the decision to inform whether or not a removal decision can be supported.

Ms. Emmendorfer's and Ms. Benson's post-hoc explanation of the methodology for conducting an overall baseline inventory, however, is not disclosed anywhere in the EA or Decision. In addition, given the somewhat ambiguous standard of a range of 10-20 tons/acre, it is unclear at which point the folks implementing the project would say there are enough downed trees to meet the standard: Would removal be allowed as soon as 10 tons/acre is met, or would the Forest Service strive to exceed that number and allow it to approach 20 tons/acre before removal is contemplated. And given that it is a minimum, is it OK to exceed the 20 tons/acre? These questions are not answered in the EA or specialist reports.

Since the methodologies for making the final removal determinations and the relevant data from which the removal determinations have not been disclosed in the EA, the decision violates NEPA.

D. By allowing tree removal, the decision cannot ensure that the GSNM Plan standard for large down logs can be met

The large down log requirement is a firm standard in the plan, which must be met: "Retain felled trees, where needed, to meet down woody material standards." GSNM Plan Standard 4, p. 82. "Retain felled trees on the ground where needed to achieve down woody material standards of 10 to 20 tons per acre in logs greater than 12 inches in diameter." *Id.*, pp. 85, 87 (for Old Forest Emphasis and in the General Monument areas).

This standard does not exist in isolation because it is based on the 2001 Sierra Nevada Forest Plan Amendment standards, and the following standard still applies in the GSNM because the GSNM Plan is simply an amendment to the 2001 plan:

Within westside vegetation types, *beginning with the largest down logs*, sequentially retain pieces of down wood until at least 10 to 20 tons per acre are retained *over a treatment unit*.

2001 Framework, Appx. A at A-28 (emphasis added). This means that

- beginning with the largest logs, the Hume Hazard Project must retain the biggest felled trees first and then sequentially smaller logs will be used until the standard is met, and
- the standard must be met over a treatment unit, which can only be interpreted as the overall Hume Hazard Project area and not just small segments along the roads where hazard trees are left.

Given this framework requirement, the Forest Service is unlikely to meet this standard with Alternative D, since these constrains are not designed into implementation of Alternative D. That the latter requirement is envisioned by the GSNM Plan standard, on November 22, 2013,

District Ranger Teresa Benson agreed that, in implementing the Hume Hazard Project, the minimum of 10 to 20 tons/acre standard must be met in the overall project area and not just the sites where trees are proposed for felling.

If any trees are removed from the Monument or the overall project area, the number of trees that are left may not allow the Forest Service meet the plan standards in the treatment unit.

1. Based on available data, the current project area falls well short of meeting the large down log standards of 10-20 tons/acre

The only data presented in the EA is an estimate of only 7.68 tons/acre within a 1/4 mile of where hazard trees are proposed to be felled along roads.³ Although the EA asserts that this is “just under the minimum standard for wildlife habitat of 10-20 tons per acre” (EA, p. 30), attaining that minimum over the entire project area with only 250 trees (even if they are very large) is not likely to be attainable, especially if some of those trees (and up to 2000 CCF) are removed as timber from the project area.

Our own estimate of the tons/acre after leaving those 250 trees (of average tree size ~36 inches DBH) brings the average along roads from 7.68 to only 8.15 tons/acre. *See SFK & SC PEA Comments, p. 8.* The Forest Service has provided nothing in their analysis to dispute or rebut this calculation, and we must therefore assume that the Forest Service also considers our estimate reasonable.

Instead of providing their own calculations, the Forest Service has only provided statements in the decision and EA that these calculations and determinations will be made after the fact. In a follow-up verbal statement, Forest Service staff has asserted that their method of calculation of the tonnages differs from ours, but we have not been provided with any alternative methodologies or estimates that contradict our calculations (personal communications with Marianne Emmendorfer on November 13, 2013). Moreover, the EA and the remaining project record provide no clue how the Forest Service will meet the down log standard other than the statements that monitoring will occur during or after project implementation. In essence, we are asked to trust those implementing the project, while the decision clearly contemplates a timber sale that would remove 2000 CCF of large logs as timber.

But the GSNM Plan requirements, standards, and NEPA require more, and the Forest Service must provide the assurance that the down log standard will be met at the time of the decision. It has not and therefore the decision to remove logs without providing the necessary data, up front, is arbitrary and capricious and in violation of the GSNM Plan and NEPA.

³ An additional indication of how much downed wood is located in the Monument and the Sequoia National Forest is also available from the Forest Inventory Analysis (FIA) database, although that measure does not match the exact scale or size of material from the standards. This data was provided to the Forest Service during scoping. *See SFK & SC Scoping Comments, Exhibit J – Down Logs Data from the FIA.* While that data is for logs 10 inches in diameter and larger (and not the 12 inches required by the GSNM Plan), it provides an indication of whether or not the Monument or project area is close to meeting the standard. Based on that data, however, the average tonnage of down logs 10 inches and greater marginally fails to meet the plan standard across the Sequoia National Forest.

2. The Decision asserts that felled tree retention is not needed along roads for wildlife, but that is an unreasonable application of the down log standard, inconsistent with the plan's explicit requirements

The Forest Service's application of the down log standard within the vicinity of roads is arbitrary and capricious. The Forest Service has assert that

There is no need to increase the amount of large down logs in the vicinity of roads or the developed recreation sites since these areas would provide low quality habitat and increase risks to wildlife (EA, p. 43; Appendix A, pp. A-2 and A-4; Appendix B, p. B-3).

EA Appx. F, Response to Comments, pp. F-5, F-6, F-9. But that statement does not represent the standard in the GSNM Plan, which requires that the project "Retain felled trees on the ground where needed to achieve down woody material standards of 10 to 20 tons per acre in logs greater than 12 inches in diameter" without exception. GSNM Plan, pp. 85, 87 (for Old Forest Emphasis and in the General Monument).

Nowhere does the plan allow deviation from this standard along roads. In fact, Standard No. 4 explicitly requires retention of down logs along roads to meet the standard, which directly contradicts the arbitrary statement from the EA quoted above:

Fall and remove hazard trees along Maintenance Level 3, 4, and 5 roads and within or immediately adjacent (tree falling distance) to administrative sites. Review by an appropriate resource specialist is required prior to falling hazard trees along Maintenance Level 1 and 2 roads. *Retain felled trees, where needed, to meet down woody material standards.*

GSNM Plan, p. 82 (emphasis added).

Moreover, the EA and decision both fail to respond to the specific comments on the matter of the needs of wildlife and retaining logs along roads, as provided by Dr. Chad Hanson:

A particular concern of mine with regard to the Forest Service's proposal to remove larger, felled hazard trees is the adverse impacts on the prey base of the Pacific fisher, an extremely rare and imperiled mink-like forest mammal strongly associated with mature/old-growth forests and the habitat structures inherent in such forests, including downed logs. The fisher is a Forest Service Sensitive Species, and is a Candidate Species for listing under the federal Endangered Species Act. The Final Environmental Impact Statement for the 2001 Sierra Nevada Forest Plan Amendment (Vol. 3, Chpt. 3, part 4.4, pp. 2-3) states that the habitat needed by the Pacific fisher consists of mature and old-growth forest with high canopy cover, large trees and snags, and an abundance of large downed logs (fallen trees). One of the key reasons why adequate levels of large downed logs are important for fishers is that such logs provide habitat for fisher's small mammal prey base (Lofroth et al. 2010). In the southern Sierra Nevada, fishers

prey predominantly on small mammals (Zielinski et al. 1999), and these small mammals live in the natural cavities and crevices in large downed logs (Smith 2000). Purcell et al. (2009) found that fishers were positively associated with significantly higher levels of large downed logs, consistent with other research (Lofroth et al. 2010). Thus, the felled hazard trees in the Hume project area would substantially enhance fisher habitat by creating structures in which an abundance of small mammals would live, and would radiate outward into the forest to find food, thus making themselves available as prey to Pacific fishers. Conversely, removal of such felled trees would adversely affect fisher populations by diminishing habitat for their prey, and thus reducing their food availability—particularly in an area that is currently somewhat low with regard to downed logs....

In the course of attempting to justify removal of felled hazard trees, the PEA, Appendix A (p. A-2) makes several erroneous and irrational statements that are directly contradicted by the scientific evidence, as well as by the PEA itself.... [T]he PEA (p. A-2) claims that removing the logs would “prevent...hiding cover for wildlife”. I am not aware of any legitimate ecological goal which seeks to reduce wildlife habitat. Moreover, nothing in the way of evidence is offered in the PEA to support this bizarre statement, and the statement would be equally true applied to standing, non-hazard old-growth trees near roads, or to existing downed logs, yet the agency is not proposing to remove these trees, which also provide cover for wildlife

Hanson Comments, pp. 1-2 (Exhibit C to SFK-SC PEA Comments).

Instead, in response to our comments, the EA includes additional arbitrary statements about research that does not exist and effects that are not disclosed in the EA:

Down logs along roadways could encourage fisher denning, resting, or foraging near the roadways, which are not suitable areas because of the disturbance and the potential for mortality from vehicle collisions. (EA. Appx. A at A-4). [Note: There is no evidence that areas near roadways are unsuitable for fishers or that removing their prey habitat will prevent vehicle collisions.]

Research has shown that habitat near roads is already of lower quality for several species due to disturbance, habitat fragmentation, edge effects, and collisions (EA, p. 43). [Note: There is no reference to any research at that location in the EA.]

Creation of down woody debris habitat is not encouraged along roadways because it would increase the potential for vehicle-versus-wildlife accidents (Appendix B, p. B-3). [Note: This citation points to a response to scoping issues and does not include any analysis, data, or scientific support, which is also lacking in the EA.]

EA, Appx. F at F-4. However, there is no research that is actually referenced to support these arbitrary assertions anywhere in the EA, and there is no data, science, or discussion to support

the arbitrary conclusions that encouraging fisher denning, resting, or foraging near roadways will increase the potential for mortality from vehicle collisions. These conclusions are therefore arbitrary and capricious.

E. The “Clear Need Analysis” is insufficient and does not comply with the plan’s Removal Criteria, which requires an individual determination whether “keeping one or more trees on site” would result in what the Forest Service asserts in Appendix A of the EA

1. “Protection of Object of Interest” cannot serve as a justification for tree removal in the Hume Hazard Project

The criterion for protection of objects of interest only allows removal “If keeping one or more trees on site would cause unacceptable fuels accumulation and fire severity effects (high tree mortality when fire is reintroduced); if removing trees would reduce the risk of wildfire to the giant sequoia groves, sensitive wildlife habitat, and adjacent communities at risk.” But as we discussed previously, there would no real distinction between alternatives with respect to the risk of wildfire:

The fire behavior characteristics the alternatives would experience in the event of a wildfire would be the same across all alternatives. Fine fuels are the primary component and carrier in the spread of wildfire. The Hazard Tree Project would only add additional large diameter fuels to the existing surface fuel bed. The action alternatives would not introduce enough additional fine fuels to increase the fuel loading or fire behavior characteristics within the project area. The methods to dispose of fine fuels do not differ between the action alternatives.

Fire and Fuels Specialist Report, p. 18. Moreover, for giant sequoia groves

there are two other options that may be considered for excess down woody material in giant sequoia groves and campgrounds:

1. Move the material to another location in the Monument where it can be removed by firewood cutters or burned.
2. Grant special permission for firewood cutting in all areas except the sequoia groves (except Indian Basin Grove), as applicable.

The justifications provided, however, never conclude that leaving the large tree boles on site would cause an “unacceptable fuels accumulation” from this project alone, nor could that conclusion be supported, given the statements in the Fire and Fuels report and the requirement to leave 10-20 tons/acre of large down logs. In fact, the analysis acknowledges that “adding large diameter fuels to the existing surface fuels would not change the rate of spread or fire behavior characteristics in the short term” Even if the fuel load would naturally increase over time, that is not a result of the immediate project, which is all that the criterion can address.

Finally, the criterion for protection of objects of interest does not include anything other than creating unacceptable fuels accumulations, so justifying removal to prevent creation of wildlife

habitat is not envisioned in this criterion. And as discussed above, not only is this an absurd argument, it directly contradicts the requirement in the Plan that the large down woody debris standard be met along roads, ostensibly to provide adequate habitat for fisher, owls, and goshawk prey habitat:

Fall and remove hazard trees along Maintenance Level 3, 4, and 5 roads and within or immediately adjacent (tree falling distance) to administrative sites. Review by an appropriate resource specialist is required prior to falling hazard trees along Maintenance Level 1 and 2 roads. *Retain felled trees, where needed, to meet down woody material standards.*

GSNM Plan, p. 82 (emphasis added). For these reasons, application of the criterion to protect objects of interest as a reason for tree removal is unjustified.

2. “Resiliency” cannot serve as a justification for tree removal in the Hume Hazard Project

The criterion for resiliency only allows removal “If keeping one or more trees on site would provide a vector for insect or disease infestations *at levels higher than currently known endemic levels.*” EA, Appx. A at A-4. Then the analysis states:

Removing them [trees] *may* help prevent insect or disease outbreaks above endemic levels that could kill the majority of trees in the vicinity and decrease the number of trees available for recruitment as snags and down woody debris in the long term. Therefore, it is expected that removing some of these trees would make these forest stands more resilient to insects, disease, and other forest stressors.

But that is not the standard of the criterion. Removal can be justified for resilience only if insect or disease infestations are expected to result in infestations that are at “*levels higher than currently known endemic levels.*” But the Forest Service explicitly admits that “Current data shows there are no insect or disease levels higher than endemic levels at present.” EA, Appx. F, p. E-6. So there is no basis under the resiliency criterion to remove trees. In fact, quite the opposite is true.

To support ecosystems function, native insects and fungi must be retained and not suppressed. Native insects in the forest ecosystem provide essential natural ecological processes and are to be retained and maintained, in accordance with the Monument Proclamation. So projects in the Monument, such as this one, should not suppress native insects that are endemic to the forest ecosystem, even for the sake of resiliency. Similarly, native fungi in the forest ecosystem provide an essential natural ecological process that should be retained and maintained, as pointed out explicitly in the Monument Proclamation: “This spectrum of interconnected vegetation types provides essential habitat for wildlife, ranging from large, charismatic animals to less visible and less familiar forms of life, such as fungi and insects.”

For these reasons, the application of the resiliency criterion to allow removal is inconsistent with the Monument Proclamation and because the Forest Service acknowledges that insects and

disease are not at levels higher than endemic, resiliency cannot be used as a basis for removal of trees from the Hume Hazard Project area.

3. “Public Safety “cannot serve as a justification for tree removal in the Hume Hazard Project

During the process of developing this project, and after the PEA was issued, the Forest Service changed its removal criterion for Public Safety for removal of felled trees along roads. Further in this appeal, we assert that this change should not have been allowed without seeking further public comments.

Under the original “Public Safety” criterion, removal along roads was not envisioned, because the criterion only allowed for the removal of trees from recreation sites:

If keeping one or more trees on site would create a public safety hazard or attractive nuisance. Forest Service policy is to eliminate safety hazards from developed recreation sites, including trees or tree limbs identified as hazardous (FSM 2332). Depending on the situation, down trees in a developed recreation site may present a hazard if people are likely to climb on them and potentially fall and get hurt (becomes more likely if the logs are large and/or they are piled on top of one another).

GSNM Plan, p. 79 (December 2012). Under that criterion, removal would only be allowed from developed recreation sites and not from roads. As we have argued in our PEA comments, we asserted that this criterion, while still severely flawed, is a better policy because there is no scientific support to justify removing trees along roads for public safety after they have been felled.

But removal along roads for public safety still cannot be justified under the new criterion because there is no valid support anywhere in the EA or Decision that leaving trees along roads poses a public safety hazard. The revised criterion adds the following criterion:

Down trees may also present a hazard in administrative sites, developed recreation sites, and along roadsides where they would add to existing fuel loads, making fire control and emergency evacuation more difficult; or increase the likelihood of vehicle accidents along roadways. Examples of where down trees could contribute to traffic accidents include but are not limited to instances where trees or tree limbs would obstruct drivers’ lines of sight, provide hiding cover for wildlife, or could become an obstruction in the roadway (FSH 7709.59, Sec. 41.7).

GSNM Plan, p. 79 (September 2013). The response in Appendix A of the EA is very similar to that in the PEA. We are glad to see that the improper reasoning about “hiding cover for wildlife” as a justification for removal was deleted from the final EA. But what remains does not support removal of trees from alongside roads or from the Monument.

First, the reasoning includes removing trees to “avoid fuels buildups, and prevent hosts or vectors for insect infestations or disease outbreaks” as well as “a fire hazard.” But vectors for insect and disease infestation are a resiliency criterion and have nothing to do with the public safety criterion, which does not include infestations as a public safety issue. Moreover, as discussed above, the Fire and Fuels Specialist Report concludes that “fire behavior characteristics the alternatives would experience in the event of a wildfire would be the same across all alternatives,” which means that fine fuel buildups, those that carry a fire, would essentially be the same whether or not large trees are removed. As we discussed in our PEA comments, large tree boles are not flammable and don’t create a fire hazard, as the Fire and Fuels Report also acknowledges. Therefore removal to reduce fire risk from fuel buildup is not justified because it’s the small stuff, the tops and branches (slash) that need to be treated.

Second, the reasoning includes removing trees because “Downed trees along roads can create safety hazards by obstructing drivers’ lines of sight, especially along curves in a road, or by becoming obstructions in the roadway.” But, as discussed above, and as envisioned in the budget for Alternative C, these trees can be relocated away from the edges of roads by pulling any trees that might cause obstruction to drivers’ lines of sight or might potentially roll onto the road. Therefore, removal for those reasons cannot be justified for the Hume Hazard Project.

Finally, the issue of attractive nuisance, which we believe is wholly arbitrary, even in recreation sites, does not apply to trees felled along roads. Therefore this criterion cannot be used to justify removal.

4. Tree Removal Determinations must be made on an individual or group of trees basis, which has not been done

Each of the removal criteria require a clear-need analysis based on whether “one or more trees” must be removed from the site because their continued presence in the Monument would either fail to result in the (1) Protection of Objects of Interest, (2) Resiliency, or (3) Public Safety. Because the words in the plan criteria must be given meaning, “one or more trees” must mean that the determination must be made on an individual tree basis, or if there are several trees at the felling site, on a group-of-trees basis. Here, the term “site” must also be distinguished from the Monument as a whole because removal from the individual site (here along the road or within a recreation site) must have a different meaning from the Monument as a whole.

But the analysis at Appendix A of the EA makes no such determinations, which are left for later to those implementing the project in the field based on an undisclosed methodology.

In planning the project and identifying the hazard trees to be felled and listed in the Hazard Tree Forms in EA Appendix E, the Forest Service could have made those individual tree determinations if they had also determined whether they first would have meet their down woody material standard.

GSNM Plan-Level Issues

II. The Forest Service's failure to seek public input on the change to the removal criterion for public safety along roads violates the NFMA and NEPA

In the GSNM Plan Appeal Decision, the Sequoia National Forest was directed by the Forest Service's Washington Office to correct an inconsistency in the plan standard and the criterion for removal based on public safety:

The criterion is specific to determining a need to remove trees that are safety hazards from developed recreation sites. However, vegetation standard and guideline #4 instructs to "Fall and remove hazard trees along Maintenance Level 3, 4, and 5 roads and within or immediately adjacent (tree falling distance) to administrative sites." (emphasis added) Monument Plan, p. 82. Although the standard is not necessarily inconsistent with the Monument Proclamation, the appellants are correct that it is inconsistent with the criterion provided in the Monument Plan for determining a clear need for tree removal, as the Proclamation requires.

GSNM Appeal Decision, p. 4. Because this change fundamentally alters an aspect of the plan that had already been decided, the Forest Service should have issued an amendment to the plan with public involvement and a NEPA analysis.

A. The Forest Service should have sought public comment for a plan amendment because the new criterion fundamentally changes the application of the plan standard in a way that was not previously disclosed to the public

The issue identified by the Chief goes to the heart of the intent of the Monument Proclamation's stricture on tree removal, and because hazard trees along roads are the largest trees that could potentially be removed from the Monument, the Sequoia National Forest should have sought public comment and issued an amendment to the plan.

For appellants of the GSNM Plan, including SFK and SC, the criterion for public safety was clear, and we expected that hazard trees could not be removed from along roads because after they were felled they would not longer pose a public safety risk. In our appeal of the GSNM Plan, we explicitly stated this assumption:

This criterion must be applied only in developed recreation sites and not along roads or trails. Moreover, as discussed before, these trees should first be considered for relocation to other parts of the GSNM where large down logs are needed for wildlife, or they should be considered for other purposes in the monument before being considered for mechanical removal from the monument. *While this criterion has been improved because of its restriction to developed recreation sites, the "attractive nuisance" criterion is still absurd.*

SFK GSNM Appeal, p. 12 (Attached as Exhibit C hereto). Based on that assumption, the criterion for public safety that limited removal in recreation sites made sense.

But the criterion was enlarged to also encompass removal along roads based on arbitrary and unsubstantiated assertions that felled trees must be removed because they “provide hiding cover for wildlife” that may dart out and cause car accidents, without any data or scientific reports to substantiate that this problem actually exists in the Monument. Until the change was announced, there was never even a single mention during the GSNM Plan process that this was a concern. Moreover, the Forest Service hasn’t even attempted to provide any anecdotal evidence that collisions with wildlife are actually a problem in the Monument. If this was a problem, then it should have been disclosed during NEPA analysis as a public safety risk.

But even if vehicle-wildlife collisions pose a public safety risk, the connection between vehicle-wildlife accidents and hiding cover from down logs is a tenuous proposition, at best. Where is the evidence that large down logs along roads somehow increase vehicle collisions with wildlife? We have searched, and there is no scientific support for such a proposition. In fact, this would be difficult or impossible to prove given that there are so many more large standing trees along roads that already provide hiding cover for wildlife. So this new hiding cover criterion can only be described as arbitrary and capricious.

The next criterion of line-of-sight obstructions makes somewhat more sense, but common sense requires a different solution, which does not require tree removal. If branches or a particular tree causes a line-of-sight obstruction near a curve of the road, the Forest Service can simply move these obstructions further back and away from the curve or roadway, which is something that is contemplated by all of the alternatives. But it is just as likely that standing trees along the roadways block a driver’s line-of-sight around curves, so should the felling criterion also be adjusted to fell and remove those standing trees to maximize public safety? Given the alternatives for mitigating line-of-sight obstructions by pulling the trees back from the roadway, tree removal cannot be justified under the clearly-needed standard.

Because we thought this all was settled with the decision, this change is significant. The new criterion has no scientific support and there is no data to support it. It is therefore an arbitrary criterion, and it cannot be used to justify tree removal when the Forest Service has not demonstrated a real public safety risk.

B. This change in the removal criterion along roads should also have been fully analyzed under NEPA

Because this change is so fundamental and would result in trees without diameter limits to be removed from hundreds of miles of road in the Monument when the previous criterion did not allow it, this is a significant change that should have been analyzed under NEPA, and the Forest Service should have disclosed the environmental effects from this greatly-expanded criterion. Because this was not done, the change violates NEPA.

In addition, because of this fundamental change, we asked that the Forest Service provide another EA comment period for the Hume Hazard Project after it revised the criterion, so we could provide meaningful comments on its application, since removal from roads was not previously allowed. The Forest Service’s failure to allow further comment at the project level

without providing sufficient environmental analysis on the effects of this change therefore also violates NEPA.

III. Application of the Hume Hazard Project shows how the GSNM Plan's flaws with regard to the Decision Tree and Removal Criteria violate the GSNM Proclamation's stricture on tree removal

The GSNM Plan states:

This plan does not include any decisions on specific projects or activities. Those decisions will be made later, after more detailed analysis of specific project sites and additional public involvement on site-specific proposals.

GSNM Plan, p. 7. Now that the Hume Hazard Project is applying the GSNM Plan's requirements and standards for tree removal, the flaws that appellants raised in their Plan Appeal are ripe for judicial review. These should be addressed in this appeal response.

A. The removal criteria are arbitrary and capricious and fail to comply with the GSNM Proclamation

The GSNM Management Plan fails to meet many of the mandates listed in the GSNM Proclamation. *See Western Watersheds Project v. Bureau of Land Management*, 629 F. Supp. 2d 951, 967-969 (D. Az. 2009) (courts may review agency compliance with Presidential Proclamation directives that rely on specific statutory authority).

The GSNM Proclamation states that "No portion of the monument shall be considered to be suited for timber production, and no part of the monument shall be used in a calculation or provision of a sustained yield of timber from the Sequoia National Forest." Moreover, "Removal of trees, except for personal use fuel wood, from within the monument area may take place only if clearly needed for ecological restoration and maintenance or public safety."

1. Criteria for tree removal are inadequate and incomplete to comply with "clearly needed" requirement.

The Proclamation's "clearly needed" language suggests a strong presumption against removal, and the criteria for removal should state unambiguously that tree removal should be rare and the exception, and that most trees should be retained in the monument as much as possible. While we agree with the Forest Service's interpretation that "tree removal" means to take out of the GSNM by burning or mechanical means (GSNM Plan, p. 78), criteria for tree removal have been written to be permissive when they should be restrictive.

More specifically, the tree removal criteria are too vague and amount to unenforceable standards, which would allow for their arbitrary application to projects. *See DellaSala Report (see SFK & SC GSNM Appeal, Exhibit A)*, pp. 34-36. The vagueness of these criteria, rather than restrictive, make them permissive and subject to abuse, so that managers can easily remove trees by mechanical means from the monument when they should instead be either retained on site, relocated within the monument, or removed by burning to assist with ecological restoration. All

of these latter options should be explored first before the Forest Service considers any mechanical removal.

The first criterion, “R1 – Protection of Objects of Interest,” allows removal “if keeping one or more trees on site would cause unacceptable fuel accumulation and fire severity effects” GSNM Plan, p. 79. But the criterion does not specify what constitutes an unacceptable fuel accumulation or unacceptable fire severity effects necessary for removal of one or more trees and is therefore arbitrary. See DellaSala Report (*see* SFK & SC GSNM Appeal, Ex. A), p. 34. In fact, the entire plan is vague with respect to what constitutes unacceptable fuel levels, and the plan provides no numeric standard (such as tons per acre) of the amount of surface or ladder fuels that could result in unacceptable fire behavior if fire were reintroduced or if a wildfire were to burn through a forest stand. Moreover, the criterion does not specify the manner of removal and under what conditions removal by broadcast or pile burning would be preferable to mechanical removal of trees as biomass or other byproduct, including commercial timber. See GSNM Plan, p. 79 (“removal may be in the form of . . . products such as wood chips, lumber, or other wood products”). If removal is necessary, any project that considers tree removal to protect objects of interest should always be designed with a burning preference over mechanical removal, consistent with the “Decision Tree for Site-Specific Projects in the Monument,” which makes “removal” the last resort. See GSNM Plan, pp. 80-83 & Figure 4. For those reasons, this criterion is inadequate.

The second criterion, “R2 – Resiliency,” allows removal “if keeping one or more trees on site would create a vector for disease infestations at levels higher than currently known endemic outbreaks.” GSNM Plan, p. 79. This criterion has little, if any, legitimacy and should be discarded in its entirety. It is a remnant of management for timber commodities and cannot be considered sound ecological management. Initially, it is unclear how the agency will determine if the retention of a single tree would somehow trigger a pandemic, and there is no science to support such a criterion. *See* DellaSala Report (*see* SFK & SC GSNM Appeal, Ex. A), p. 35. Moreover, it is unclear how this criterion should be applied to a tree after it has been felled and lays on the ground. We know of no vectors of disease or insect infestation from downed woody material that would trigger a known endemic outbreak. *Id.* Rather down woody material is an essential component of a forest ecosystem that breaks down with the assistance of insects and fungi (aka. disease agents). Further, there is nothing in the GSNM Proclamation that can be inferred that may allow tree removal to create “resiliency” to endemic insect or disease infestations, which should always be considered as natural disturbance agents that are actually beneficial to the forest. In managing for biological diversity and ecological restoration, insects and fungi are necessary components of natural processes and should be encouraged rather than suppressed. As Dr. Ed Royce explains:

The words resilience or resiliency are never stated in the Proclamation as a management objective. The Forest Service introduces resilience as an objective by quoting a section of the Forest Service Manual and a Region 5 policy document dealing with restoration. As a general objective, the inclusion of resilience would appear to be reasonable -- perhaps even welcome -- but felling large trees to achieve it is not. Yet resilience is used to justify this felling.

The concept, explained in more detail in chapter 4 of the FEIS, is to make each tree in the forest able to withstand stresses such as drought, climate change, or insect attack. This is to be accomplished by removing neighboring tree(s) that might compete with the tree to be protected -- reducing competition for resources such as water or light.

Nature has an alternative solution to the problem of "excess" competition -- the trees compete until one of them dies. The end result for the natural process is similar to that for the managed process, except that it may take longer to get to the final result. Perpetuation of the forest does not require the perpetuation of all of its trees. The natural process may leave a few standing snags that would not be present under the managed process, but they will be welcomed by wildlife. This is what one should expect in a forest that emphasizes the restoration of natural processes.

Royce Report (*see* SFK & SC GSNM Appeal, Ex. B), p. 5.

Moreover, the only mention of “resilience” in the Proclamation relates to resilience from logging or to recover from conditions brought on from fire suppression and the potential for severe wildfires: “Outstanding opportunities exist for studying forest resilience to large-scale logging and the consequences of different approaches to forest restoration” and “Outstanding opportunities exist for studying the consequences of different approaches to mitigating these conditions and restoring natural forest resilience.” Resilience in this context does not mean resiliency to native insects and diseases, which are ecologically beneficial. Instead, the Forest Service turns this concept on its head, suggesting logging for the purpose of restoring resiliency, thereby enabling logging to restore resilience from logging.

Fungi and insects, the agents of endemic outbreaks of insects and disease infestations (aka. natural processes), are actually mentioned in the Proclamation as “objects of interest” representative of a “spectrum of interconnected vegetation types provid[ing] essential habitat for wildlife, ranging from large, charismatic animals to less visible and less familiar forms of life, such as fungi and insects.” For those reasons, endemic or native fungi and insects should be protected and should not be suppressed under the guise of management for resiliency. This criterion should be removed.

Third, “R3. Public Safety,” allows removal “if keeping one or more trees on site would create a public safety hazard or attractive nuisance. Forest Service policy is to eliminate safety hazards from developed recreation sites, including trees or tree limbs identified as hazardous (FSM 2332).” GSNM Plan, p. 79. This criterion must be applied only in developed recreation sites and not along roads or trails. Moreover, as discussed before, these trees should first be considered for relocation to other parts of the GSNM where large down logs are needed for wildlife, or they should be considered for other purposes in the monument before being considered for mechanical removal from the monument. [While this criterion has been improved because of its restriction to developed recreation sites, the “attractive nuisance” criterion is still

absurd.]⁴ Under this criteria any tree would pose a public safety concern because trees are attractive to children for climbing, who could then fall from the tree and injury themselves. Under such rationale, the Forest Service could justify removing any tree, whether standing or down to get rid of these attractive nuisances.

The Forest Service should correct this deficiency by unambiguously articulating when a “clear need” exists for tree removal. This limitation should not be subjective (i.e., it should be based on explicit metrics) and be capable of verification through monitoring. Sierra Club believes that a clear need only exists when the agency issues a site-specific finding for each tree that no other alternative is available to meet the site specific restoration and safety goals and that this site-specific finding is grounded in science. As we stressed in our DEIS comments:

[T]he Forest Service may not remove trees from the Monument area without:

- a. A finding that it has no other alternative available for accomplishing site specific restoration or safety goals.
- b. Scientific verification that tree removal will accomplish the goals in question.
- c. A separate finding of “clear need” specific to the Monument, based on a factual inquiry concerning the alternatives to and efficacy of any such undertaking.
- d. Additionally, the Forest Service must consider the effects of that management on the Monument’s specific purposes, primarily any effects on the objects of scientific interest the Monument was designed to protect. The Forest Service must find that the health and protection of these species and resources are being advanced by the proposed project.
- e. Removal of Hazard Trees: If a structure or human being is about to be crushed by a leaning tree, that tree may be felled. Removal, however, must be guided by new standards that comply with habitat needs for wildlife. Furthermore, the Forest Service must identify each tree to be felled or removed and the reason for removal.
- f. The plan should establish peer-reviewed, scientific criteria to determine what areas are subject to hazard tree removal.

SFK & SC DEIS Comments, pp. 109-110. The GSNM Plan has not addressed these concerns. For the foregoing reasons, the tree removal criteria are inadequate.

2. Criteria do not include adequate priorities or hierarchies for first retaining trees in the monument before removal can be considered.

While the GSNM Plan now includes a decision tree for site-specific projects (GSNM Plan, p. 81, Figure 4), there is no equivalent decision tree or hierarchy for tree removal that prioritizes retention of trees in the GSNM under the “clearly needed” requirement. In our comments on the DEIS, we stressed the need for retaining trees in the GSNM, either as snags or as large down

⁴ This was the point in our GSNM Plan Appeal where we assumed the criterion would not be applied to roads.

logs, for wildlife, thus for ecological restoration. *See* Sierra Club DEIS Comments, pp. 110-115. Not only is there a pervasive deficiency of large snags in the Sierra Nevada, Pacific fishers need large amounts of down woody material as habitat in the GSNM to assist in their recovery.

We applaud the Forest Service for separating its decisions with regard to felling from those for removal, but it is still impossible for the GSNM Plan to meet the “clearly needed” requirement without a hierarchy or decision tree for individual tree removal decisions that favors retention over removal, similar to what we suggested in our DEIS comments. *See* Sierra Club DEIS Comments, pp. 113-114; *see also* Citizens’ Park Alternative, pp. 17-19. The overall tree removal criteria should always consider the need for woody material in other parts of the monument before it would be removed by burning or mechanical means.

B. Standards and Guidelines for Hazard Tree Felling or Removal Fail to Comply with the GSNM Proclamation

With regard to hazard trees, the Forest Service provides a huge loophole, allowing the felling and removal of any size hazard tree to deviate from all vegetation management standards and guidelines. *See* GSNM Plan, p. 82, S&G 3. (“Incidental removal of trees that present safety hazards may deviate from vegetation management standards and guidelines.”). This is unconscionable and violates the GSNM Proclamations’ stricture under the “clearly needed” strictures because it appears to discard all the previous criteria for tree felling and removal. Moreover, S&G 4. also deviates from the criteria by allowing both felling and removal of any hazard trees along Maintenance Level (ML) 3, 4, or 5 roads without further review, only requiring review by an appropriate resource specialist for ML 1 or 2 roads.

Both S&Gs make no distinction with regard to whether these trees would better serve as snags for wildlife, and neither invokes any particular procedure or criteria for whether a particular tree actually presents a hazard.

Instead, the Forest Service has not addressed or even responded to our concerns about the special considerations for hazard trees. *See* Sierra Club DEIS Comments, pp. 115-118. Here are some of the highlights of our comments:

The felling of hazard trees is of special concern because these are likely to be the largest trees that may be cut in the Monument. Clearly, there will always be a need to avert dangers to the public and structures (targets) from hazards, including large trees, that may harm persons, buildings, recreation sites, or administrative sites. Therefore, hazard trees should be felled if it has been determined that the target cannot be moved.

Roads, with the possible exception of the paved highways in the Monument, should not be considered targets. There are over a thousand miles of unpaved roads in the Monument, and if there are significant hazards along some of these roads, those should be closed to vehicles to avert the hazard. Large trees, and especially large snags, are so important to the restoration of wildlife that they

deserve special scrutiny before they are felled, and every alternative should be considered, including road closure, to preserve these large trees for wildlife needs.

Other options should also be explored, if the Forest Service concludes that part of the felled hazard tree would leave unwanted small fuels from limbs or tops of trees on the ground. As discussed below, any concerns about hazardous fuels can be averted by removing those limbs or tops because the large tree bole is not considered a fuel risk. In addition, the Forest Service can design a hazard tree criterion that doesn't cut the entire tree, but only tops or branches that present a potential hazard.

Id., p. 115. Thereafter, we provided specific Hazard Tree Felling Standards that were a part of our Citizens' Park Alternative that we believe include the minimum necessary to meet the "clearly needed" requirements from the GSNM Proclamation and to protect wildlife Objects of Interest. *See id.*, p. 116-117. But none of these options are a part of the GSNM Plan.

Hazard tree logging up to 200 feet along both sides of ML 3, 4, and 5 roads would involve a significant acreage of the GSNM. Based on the Transportation Plan, ML 3, 4, and 5 roads amount to about 254 miles of the road system. *See* GSNM Plan, p. 126, Table 51. That amounts to over 12,300 acres where large trees could be felled and potentially removed. If we include all ML 1 and 2 roads, along which the S&Gs provide managers the discretion to fell hazard trees, that mileage increases to 822 miles, amounting to over 39,800 acres or 11.3 % of the GSNM.

Most of the large trees felled and removed from the GSNM have been from Hazard Tree projects. For example, in 2009, the Forest Service felled and removed about 1 million board feet of timber as part of the Hume Lake Roadside Hazard Tree Removal Project in the Hume Lake RD of the GSNM, which included trees that were an average 36 inches in diameter and up to 60 inches in diameter. All merchantable timber was removed from the GSNM to offset project costs, in violation of the GSNM Proclamation. Removal of non-flammable tree boles was not "clearly needed" to avert public safety after felling. And all flammable limbs and tops were left in piles yet to be burned.

In fact, the Hume Lake RD is once again planning another Roadside Hazard Tree Project [this project], in which agency managers propose to fell and potentially remove up to 1 million board feet from the GSNM under Alternative B. *See* Hume Hazard Project Scoping Notice, PDF, p. 1. Then Hume Lake District Ranger John Exline and his staff have admitted to us that they plan to sell trees for the purpose of defraying project costs, while also admitting that the project can be effectively implemented to avert public safety without selling trees. *See* Exhibit A, p. 2 (Declaration of Ara Marderosian and René Voss).

But offsetting project costs is not one of the reasons allowed for tree removal under the "clearly needed" mandates in the GSNM Proclamation. In fact, District Ranger Exline admitted, as documented in our declaration, that this project could be effectively implemented to avert safety hazards and fuels using force accounts without the need to sell the trees. *Id.* These admissions from a GSNM line officer and his staff clearly show that removal of hazard tree boles is not "clearly needed" after they are felled, and leaving them on the ground as large woody debris,

while treating the slash, tops, and limbs alone can avert the safety hazards and effectively treat activity fuels.

Unfortunately, none of these acknowledgements have been integrated into the GSNM Plan as S&Gs, as we proposed in our DEIS comments

CONCLUSION

For the foregoing reasons, the Appeal Deciding Officer should remand the decision for further analysis with instructions to select Alternative C.

For Sequoia ForestKeeper, the Kern-Kaweah Chapter of the Sierra Club, and the John Muir Project of Earth Island Institute,

A handwritten signature in blue ink, appearing to read "René Voss". The signature is fluid and cursive, with a long horizontal stroke at the end.

René Voss – Attorney at Law