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File Code: 1570
Date: JUL 14 2017

Objection No.: 17-05-00-0013-O218
17-05-00-0014-O218
17-05-00-0015-O218
17-05-00-0016-O218
17-05-00-0017-O218
17-05-00-0018-O218

CERTIFIED MAIL–RETURN RECEIPT REQUESTED

Dear Objector:

The Legal Notice of the objection period for the Trestle Forest Health Project was published on April 3, 2017. I received your objection on the Trestle Forest Health Project. You were eligible to file an objection and your objection letter was filed during the objection-filing period. I held a resolution meeting with the Eldorado National Forest and objectors on June 20, 2017.

During that meeting, two specific units were brought up by one of the objectors. The objector was concerned about the commercial thinning proposed within those two units that are within important California spotted owl territories. After the objection resolution meeting, Lawrence Crabtree, the Responsible Official for the project, took a harder look at those two units (623-413 and 623-417). In consideration of both providing effective fuels treatments adjacent to Leoni Meadows and further reducing impacts from commercial thinning within California spotted owl habitat, he decided to make some adjustments to the treatments in unit 623-417. As shown on the attached map, the area of commercial thinning within unit 623-417 will be reduced by approximately 80 acres. The treatments would commercially thin, cut brush, and mechanically pile within a 300 foot buffer along the roads, and change the treatment to just brush cutting (including conifer saplings) and mechanical piling on the remaining area. The Responsible Official believes these adjustments will still effectively treat the fuels while reducing impacts to owl habitat.

This letter is my written response to your objections, as required by 36 CFR 218.26(b).

Project Summary

The overall objective of the Trestle Forest Health Project is to reduce the threat of high-intensity wildfires on local communities and to improve forest health, while improving conditions for wildlife and enhancing watershed conditions. Project activities are proposed on National Forest System Lands on the Eldorado National Forest in El Dorado County, California. The Eldorado

National Forest proposes to treat up to 16,764 acres using a variety vegetation treatments. The treatments recommended and analyzed include ground based and skyline thinning, hand thinning, prescribed burning, road improvements, water hole maintenance and repair, and restoration activities for dispersed recreation, roads, trails and abandoned mines. The EIS discloses the direct, indirect, and cumulative environmental effects that would result from the proposed action, a no action alternative, and two additional action alternatives.

Requested Relief

You asked to change the project in the following ways:

1. Analyze a no new roads alternative in detail and display the results in the final NEPA document. (Dick Artley)
2. Revise the FEIS using a landscape architect to analyze the environmental effects to scenery/visuals in Chapter 3. Also include a list of the preparers in the FEIS with name and specialty. (Dick Artley)
3. Revise the FEIS to analyze an alternative using Dr. Cohen's methods on private land with the goal to examine alternatives that save human lives. (Dick Artley)
4. Include supporting documentation concerning the number of individuals in support of or rejecting logging activities on NFS lands. Do not log on NFS lands. (Dick Artley)
5. Revise the FEIS to consider best available science in the analysis. (Dick Artley)
6. Revise the NEPA document so all issues identified by the public are listed in the body of the NEPA document posted online. If an issue is declared "non-significant," disclose the reasoning. (Dick Artley)
7. Revise the NEPA documents with project maps large enough for the public to locate their favorite recreation areas in the sale area as well as show location of developed campgrounds and the names of the streams in the area. (Dick Artley)
8. Revise the FEIS to indicate all temporary roads will be obliterated after use. Describe obliteration, including reestablishing the natural side slope that existed before the road was constructed by placing the fill back into the cut. Also include a road obliteration monitoring plan to assure the sediment is being reduced as expected. The ROD should include USFS funding for monitoring and accomplish the monitoring. (Dick Artley)
9. Revise the NEPA document to include a link to the NPDES permit. (Dick Artley)
10. Revise the FEIS to include:
    - Energy requirements and conservation potential of various alternatives and mitigation measures;
    - Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures; and
    - Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures. (Dick Artley)

11. Cite some source documents from the Opposing Views Attachments in the FEIS. (Dick Artley)
12. Revise the Draft ROD to Select Alternative 4, the environmentally preferred alternative. (Ben Solvesky of Sierra Forest Legacy, Chad Hanson of John Muir Project, Justin Augustine of Center for Biological Diversity)
13. Exclude all 5M, 5D and 6 habitat from treatment in order to protect this important habitat and be consistent with the 2004 Sierra Nevada Forest Plan Revision (Framework), and revise the BEBA and FEIS to include a map depicting the location of HRCAs and CWHR 5M, 5D, and 6 habitat. (Chad Hanson of John Muir Project, Justin Augustine of Center for Biological Diversity, Ben Solvesky of Sierra Forest Legacy)
14. Revise the Draft ROD to drop the 2,933 acres of logging within California spotted owl Home Range Core Areas (HRCAs) from Alternative 5. (Chad Hanson of John Muir Project, Justin Augustine of Center for Biological Diversity)
15. Amend the 2004 Framework and postpone the Trestle Project until that occurs. (Chad Hanson of John Muir Project, Justin Augustine of Center for Biological Diversity)
16. Revise the FEIS to analyze an alternative that would only use prescribed burning in units that have been logged in the last 20 years. (Ben Solvesky of Sierra Forest Legacy)
17. Revise the Draft ROD to Select Alternative 2 (Proposed Action) instead of Alternative 5. (Mike Almer of Grizzly Flats Fire Safe Council, Craig Heinrick of Leoni Meadows Camp, Andre Legrand of the Grizzly Flats Community Services District)

Instructions to the Responsible Official

Issue 1: Clarify the reasons for not considering a no temporary roads alternative.

Clarify the discussion concerning impacts of temporary roads in the Hydrology Report and the FEIS.

Clarify temporary road use in the FEIS, including explaining whether or not the proposed temporary roads are existing unauthorized routes.

Issue 2: Add the specialty of each preparer to the list of preparers in the FEIS.

Issue 5: Provide the scoping analysis summary to the public, with clarification regarding significant and non-significant issues.

Briefly discuss non-significant issues in the FEIS.

Issue 6: Clarify the methodology behind the fire/fuels analysis especially concerning the assumptions, uncertainty and limitations of the fire modeling so that the public understands why the modeling maps are not intended to show fire impacts to specific locations on the ground.

Provide large format printed maps to the public when they do not have the capability to view the maps electronically.

Issue 7A: Clarify in the project record that this project will be enrolled under the Waiver (R5-2014-0144) and what the timeline for enrollment will be.

Issue 10 and 17: Clarify the rationale for determinations concerning project impacts on the California spotted owl.

Issue 17: Discuss the Stephens et al. (2014) findings and how they do or do not relate to the project.

Conclusion

The Responsible Official's rationale for this project is clear and the reasons for the project are logical and responsive to direction contained in the Eldorado National Forest Land and Resource Management Plan and the 2004 Sierra Nevada Forest Plan Amendment. As described above, I made a reasonable and appropriate effort to resolve the concerns that were brought forward while maintaining a balanced approach to managing the lands and meeting the purpose of the project.

By copy of this letter, I am instructing Forest Supervisor Laurence Crabtree to proceed with issuance of a Decision for this project once the instructions identified above have been completed. There will be no further review of this response by any other Forest Service or U.S. Department of Agriculture official as per 36 CFR 218.11(b)(2).

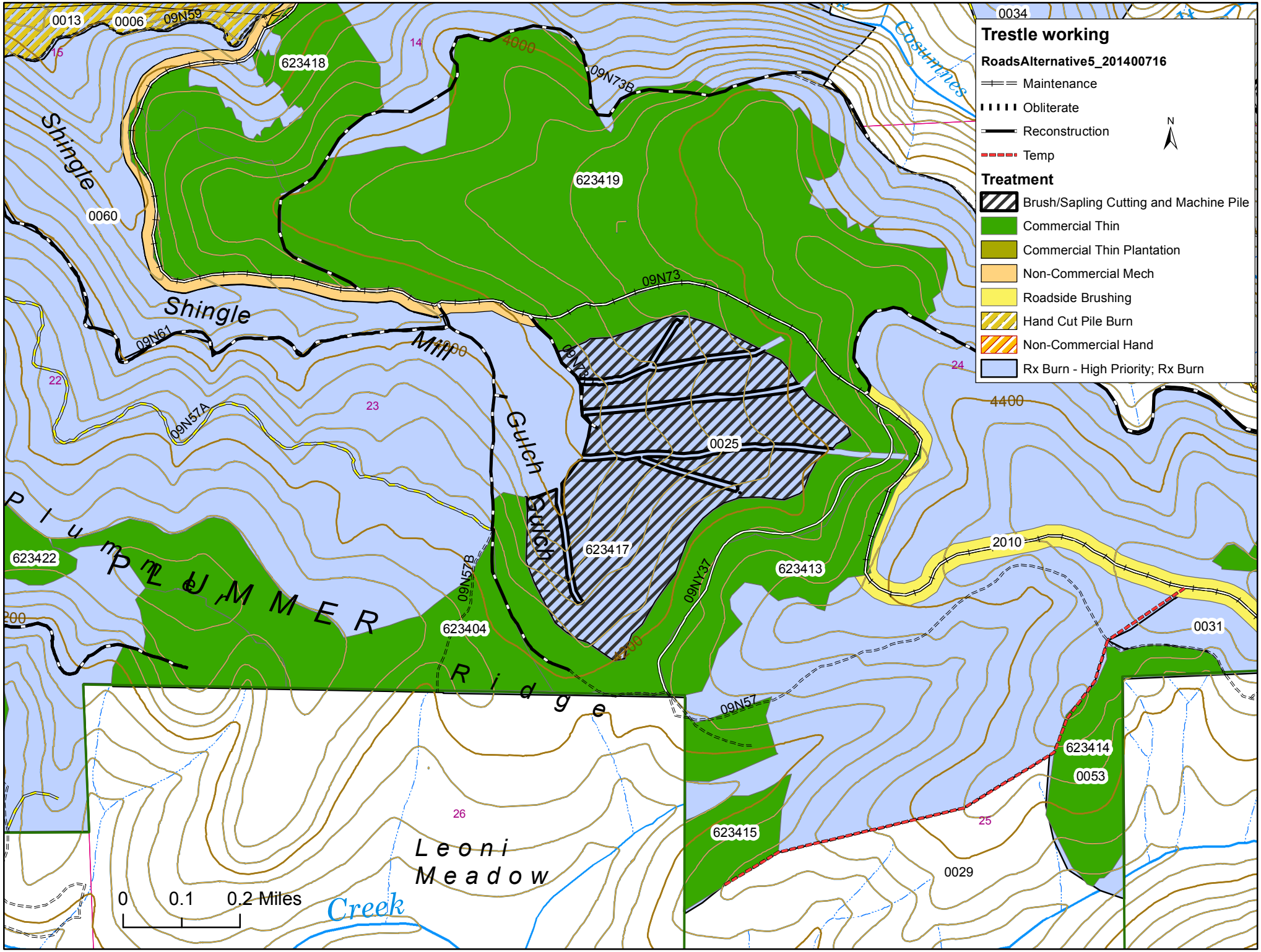
Sincerely,

Barnie Gyant

BARNIE GYANT
Deputy Regional Forester
Reviewing Officer

Enclosures

cc: Laurence Crabtree, Jennifer Marsolais, Mary Beth Hennessy, Nevia Brown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TRESTLE FOREST HEALTH PROJECT OBJECTION ISSUE SUMMARIES AND RESPONSES

Issue 1. The Responsible Official failed to analyze in detail a reasonable alternative proposed by the public during a public comment period, which violates 40 CFR §1500.2.

The objector proposed a no new roads alternative (system or temporary) that is "reasonable" and "avoids or minimizes adverse effects" of road construction "upon the quality of the human environment." Artley, pp. 2-3.

Response:

The objector made a comment concerning analyzing this alternative during the DEIS comment period, stating: "…Analyze a no road construction (including temp roads) action alternative in detail…" (FEIS, Appendix D, p. 29). The response to the comment states that "no new roads would be constructed, with the exception of 3 miles of temporary roads needed to access treatment units… No adverse effects to any resources were noted related to the construction of… temporary roads" (FEIS, Appendix D, p. 29). While the response to this comment states that no adverse effects are identified from temporary roads, the FEIS and Hydrology Report do not explicitly evaluate impacts of temporary roads.

A description of temporary roads is included in the FEIS (FEIS p. 20; locations shown on maps in FEIS Appendix A), but details such as whether they would occur on existing roadbeds or not is lacking.

I find that there is a lack of clarity concerning reasons for dismissing a no temporary roads alternative from consideration, and a lack of discussion concerning impacts of temporary roads.

Issue 2. The objector requested, and the Responsible Official failed, to add a landscape architect to the IDT, include their name in the list of preparers in the EIS, and re-write and modify the analysis of scenery/visual effects to provide a professional effects disclosure.

This violates 40 CFR 1501.7, 40 CFR 1502.6 and 40 CFR 1507.7 because the team that prepared the FEIS was not interdisciplinary and does not contain the necessary members. The EIS violates 40 CFR 1502.1(h) because the FEIS does not contain a list of preparers. Artley, p. 3

Response:

A scenery/visual resource effects section was not included in the DEIS, and is included in the FEIS (FEIS Chapter 3, pp. 180-183). The objector brought up the lack of the scenery/visual effects section in his comments on the DEIS, and in response to that comment, the analysis sections were added to the FEIS (FEIS, Appendix D, p. 24).

The interdisciplinary team members were listed in the FEIS (p. 194) but the specialty of each team member was not included in the list, as required by 40 CFR 1502.17. Therefore, it is unknown whether the team included a team member with appropriate skills to evaluate impacts of the project on scenic integrity.

I find that an analysis of impacts on scenic resources was included in the FEIS. I find that the FEIS is lacking the qualifications, expertise, or specialty of preparers as required by 40 CFR 1502.17.

Issue 3. The objector requested the Responsible Official analyze another alternative in detail, and modify the Purpose and Need, if necessary, that includes Dr. Cohen's methods that include reduction of fine fuels on private land.

As part of this alternative, the Forest Service should have offered to reduce fine fuels on land privately owned by elderly and handicapped homeowners. Failing to analyze a reasonable alternative in detail that is proposed by the public during a public comment period violates 40 CFR 1500.2(e). The decision to omit this reasonable alternative also violates NEPA Sec. 101(b)(2) (assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings), NEPA Sec. 101(c) (The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment), Executive Order No. 13045, Apr. 21, 1997 [section 1-101(a)] (make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children), and 40 CFR §1508.27(b)(2) (the Responsible Official will be unable to write a FONSI due to the intensity category that discusses "The degree to which the proposed action affects public health or safety"). Artley, pp. 4-5

Response:

The objector brought up this issue in his DEIS comments, and the response to that comment acknowledges that treatment immediately adjacent to homes is critical to reducing the loss of homes during a wildfire, and that this project builds upon work already being conducted by neighboring landowners and local fire safe councils on private lands adjacent to National Forest lands (Trestle FEIS, Appendix D, pp. 29-30).

Concerning the protection of communities from wildfire, the response to comments also states: "The Trestle Forest Health Project is designed to address a diverse set of needs in the project area, including reducing fuel loading, improving forest health and resiliency, and encouraging hardwood and old growth forest characteristics (FEIS, pp. 9-13**).** Maintenance of home ignition zones on private lands is outside the scope of the project" (FEIS, Appendix D, p.17).

I find that the request for this alternative is adequately explained as being outside the scope of the project and was not analyzed.

Issue 4. The responsible official failed to include a discussion and supporting data in the final NEPA document showing whether the majority of the people in the area support or reject logging in the National Forest, as the objector requested in earlier public comments.

Also, the objector requested the Responsible Official justify ignoring the public while continuing to spend tax dollars. Therefore, the NEPA document violates 40 CFR 1500.2(e) and (f) because the Responsible Official does not use all practicable means to "avoid or minimize any possible adverse effects of their actions upon the quality of the human environment" and does not "avoid or minimize adverse effects of these actions upon the quality of the human environment," Executive Order 13563 of January 18, 2011, and 16 U.S.C. § 1851: US Code - Section 1851. Artley, pp. 5-6.

Response:

Within the (FEIS, p.16) and (Draft ROD, p.5) the Responsible Official outlines public involvement for the project, which included a NOI being posted in the Federal Register, listing the project on the Schedule of Proposed Actions, a public scoping effort in which a letter was sent out asking for public input on the proposed action, collaborative meetings with local interested parties and participants from timber industry and environmental groups, and a request for public comment on the DEIS. Several local interested parties commented on the DEIS (FEIS, Appendix D, p. 1).

The FEIS includes cost estimates for the project (FEIS on pp. 39-40). In addition, the Responsible Official discusses the economic considerations within the Draft ROD (p. 6), which included a discussion of estimated timber revenues and costs associated with prescribed burning.

I find the Responsible Official has provided many opportunities for the public, including the public local to the project, to provide comments and input on the project and the development of the alternatives.

Issue 4A. The information provided by several IDT members should not trump independent scientists' research conclusions, thus establishing USFS IDT members' information as "best available science." Artley, p. 5.

Response:

Peer-reviewed science was used to explain and support the analyses throughout the project record and can be found specifically within the analyses of resource impacts in Chapter 3 of the FEIS (pp. 43-193).

In regards to the article that "Survey Results of the American public's values, objectives, beliefs, and attitudes regarding forests and grasslands" brought up in the objection letter, this article addresses values at a national level, while the project provided for comment and participation at many levels, including the national and local levels (FEIS, p. 16). The public input was used to inform the development of alternatives to the proposed action and to inform the decision (Draft ROD, pp. 2-4). While the scientific article is not directly addressed in the FEIS analysis, the Responsible Official implemented many efforts to gather information and concerns from the public and put it to use in this project planning process.

I find that each resource analysis referenced scientific literature and used scientific information to ensure the integrity of the analysis.

Issue 5. The Responsible Official failed to assure that all issues identified by the public are listed in the body of the NEPA document (both hardcopy and posted online), and explain why some issues were determined to be "non-significant," as requested by the objector in previous public comments.

Rejecting public input and excluding the public from further involvement by dismissing their concerns, violates 40 CFR 1506.6(a) because the Responsible Official did not make "diligent" efforts to involve the public, and 40 CFR 1500.2(d) by failing to "encourage and facilitate public involvement in decisions which affect the quality of the human environment." Also, the project violates 40 CFR 1501.4(b), because the Responsible Official does not involve all members of the

public, to the extent practicable, in preparing assessments required by §1508.9(a)(1). Artley, pp. 6-7.

Response:

Public involvement for this project was extensive, including scoping, DEIS comments, and collaborative meetings (FEIS pp. 16-17; Draft ROD, p. 7). The FEIS states that: "A list of non-significant issues and reasons why they were found non-significant may be found at the scoping comment summary in the project record located at Placerville Ranger Station, Eldorado National Forest" (FEIS, p. 17). The objector claimed in his DEIS comment letter that the reason that scoping issues were dismissed was not appropriately disclosed to the public by stating the reasons for dismissing public comments were kept in the hard copy project file at the district, rather than being disclosed to the public, stating that it is not feasible for many commenters to drive to the district office to review the information (Dick Artley DEIS comment letter, pp. 35-37). He also requested that all issues identified by the public in scoping comments be listed in the body of the NEPA document, and for non-significant issues, include reasons why they were found to be non-significant (Dick Artley DEIS comment letter, pp. 37-38).

The Scoping Comment Summary is in the project record and includes a brief summary of the letters and brief responses, but it does not identify significant and non-significant issues (Trestle Forest Health Project Summary of Scoping Comments, all pages).

The response to comments in the FEIS Appendix D summarizes the comment letters. The comment related to this objection issue is summarized as: "Please post your responses to public comments on this online as well as maintaining a hardcopy in the Project File. Assure that all issues identified by the public are listed in the body of the NEPA document posted online and hardcopy," and the response is: "The response to comments is included in Appendix D of the Final Environmental Impact Statement (FEIS). The FEIS is posted on the project's website" (FEIS, Appendix D, p. 25). This response does not address the objector's comment concerning scoping comment analysis.

40 C.F.R. §1501.7 (a) states: "As part of the scoping process the lead agency shall: (3) Identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review, narrowing the discussion of these issues in the statement to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere." It appears that there is no "brief presentation" of the non-significant issues in the FEIS.

I find that the Responsible Official did make diligent efforts to involve the public and encouraged and facilitated public involvement in the project planning process, consistent with 40 CFR §1506.6(a) and 40 CFR §1500.2(d). I find that the Responsible Official appropriately used the public scoping process to determine the scope and the significant issues to be analyzed, consistent with 40 CFR §1501.7 (a)(2); however, I find that non-significant issues are not addressed in the EIS, as required by 40 CFR §1501.7 (a)(3).

Issue 6. The NEPA document includes map exhibits at such a small scale they are meaningless to the public.

The public should have the opportunity to easily locate proposed cutting units and roads in relation to their favorite recreation areas in the sale area. Every map including "fire modeling

maps" should be provided to the public at a reasonable scale. Therefore, the final EA violates 40 CFR 1500.1(b) because environmental information is not available to the public before decisions are made and before actions are taken. (Artley, pp. 7-8)

Response:

This comment was brought up during the public comment period and responded to in the following way:

> Appendix A of the EIS contains maps of the proposed action and alternatives and provides a reasonable spatial depiction of proposed activities and geographic locations within the project area. Maps that were in the DEIS on pages 62 and 63 (pp. 65-66 of the FEIS), as referred to by the commenter, were generated from fire simulation modeling and were meant to provide an overview of how a potential wildland fire would move through the project area under the proposed action. These fire modeling maps were not intended to provide the location of project activities (i.e., commercial and non-commercial thinning units, hand thinning units, prescribed burn units, and restoration sites). Project area maps that include the location of activities proposed under each alternative are provided in Appendix A (FEIS Appendix D, pp. 25-26)

Three maps are provided in FEIS Appendix A that display the Alternative proposals for the project at a scale of approximately 1 mile to 1 inch. Printed out at this scale, the stream names and place names are too small to read; however, the maps have been created at a sufficient electronic quality that one can zoom into the maps on a computer screen and read these names. The FEIS is available to the public online, allowing the public to access the map information.

The fire modeling maps are intended for comparison of the different alternatives on how fire moves across the landscape under very specific weather conditions. A discussion of the assumptions, uncertainty and limitations of this type of modeling is lacking in the EIS.

I find that maps in the FEIS are difficult to read when printed at the current scale, but are sufficient for electronic viewing. I find that the fire modeling maps are intended to serve the purpose of comparing fire behavior under different alternatives, but the assumptions, uncertainty and limitations of the modeling are not well explained, which could confuse the public concerning the site specific accuracy of these maps.

Issue 7. The Responsible Official failed to document that the proposed temporary roads would be obliterated with an appropriate definition of obliterate.

An obliterated road is correctly defined as 1) having no running surface, 2) the CMPs have been removed, and 3) the natural sideslope that existed before the road was constructed is reestablished by placing the fill back in the cut. The definition included in the NEPA document describes hydrologically stabilizing the road, not obliteration. The NEPA document also should include a road obliteration monitoring plan, with appropriate funding, to assure the sediment is being reduced as expected. The failure to appropriately document temporary road obliteration violates:

- 40 CFR 1500.1(c) because the ineffective proposal to hydrologically stabilize temporary roads after use will not "protect, restore, and enhance the environment."

- 40 CFR 1500.2(f) because the ineffective proposal to hydrologically stabilize temporary roads after use will not "restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment."
- 40 CFR 1500.2(e) because the ineffective proposal to hydrologically stabilize temporary roads after use will not "avoid or minimize adverse effects of these actions upon the quality of the human environment."
- 36 CFR 212.5(b)(2) because hydrologically stabilizing the road does not restore the road to a more natural state. 36 CFR 212.5(b)(2) states that decommissioning actions must include "but are not limited to… reestablishing former drainage patterns, stabilizing slopes, restoring vegetation, blocking the entrance to the road, installing water bars, removing culverts, reestablishing drainage-ways, removing unstable fills, pulling back road shoulders, scattering slash on the roadbed, completely eliminating the roadbed by restoring natural contours and slopes." Obliteration as defined in the NEPA document does not comply with this direction. Artley, pp. 8-10.

Response:

The word "obliterate" can be defined in different ways. For this project obliterate has been defined as: "remove bridges and culverts, eliminate ditches, outslope roadbed, remove ruts and berms, effectively block the road to normal vehicular traffic where feasible under existing terrain conditions, and build cross ditches and water bars" (FEIS, p. 33).

I find that obliterate is defined in a very specific and clear way for this project, and that the process of obliteration will return these roads to a more natural state, consistent with 36 CFR 212.5.

Issue 7A. The NEPA document should include a link to the NPDES permits for the roads planned to be constructed for this timber sale.

The Clean Water Act requires federal official to secure National Pollutant Discharge Elimination System (NPDES) permits when federal officials create point sources for water pollution. Artley, pp. 8-9.

Response:

The federal Clean Water Act is administered by the State of California through the State Water Quality Control Board and its Regional Boards (in this case, the Central Valley Regional Water Quality Control Board). The primary mechanism for this is the California Regional Water Quality Control Board, Central Valley Region, Order No. R5-2014-0144, Renewal of Conditional Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvesting Activities (2014; Waiver).

The Waiver explains that ...the State Water Board certified the Forest Service's plan entitled "Water Quality Management for National Forest System Lands in California." This plan designates the U.S. Forest Service as the Water Quality Management Agency (WQMA) for specified activities on National Forest System lands in California that may result in non-point source discharges, including timber management, vegetative manipulation, fuels management, road construction and watershed management. The State Water Board executed a Management Agency Agreement with the Forest Service, and the agreement states that the Central Valley

Water Board will waive waste discharge requirements for Forest Service timber harvest activities that may result in non-point source discharges, provided that the Forest Service designs and implements its projects to fully comply with state water quality standards (Waiver, pp. 2-3). The State Water Board refers to the practices in the Water Quality Management Plan that adhere to the state water quality standards as best management practices (BMPs) (Waiver, p. 3). BMPs for this project are listed in Appendix B of the FEIS and are in compliance with the Water Quality Management Plan.

All activities proposed under the project are covered by the Waiver; therefore a NPDES (National Pollutant Discharge Elimination System) permit is not required. Enrollment of the project in the Waiver is requested with the Central Valley Water Quality Control Board the after the NEPA decision is signed.

I find that the project is in compliance with the Central Valley Water Quality Control Board Waiver and The Clean Water Act. A NPDES permit is not required for this project.

Issue 8. The EIS violates NEPA 40 CFR 1500.1(b) and 40 CFR 1502.16 and NFMA section 5 because the following were not discussed in the NEPA document:

> (e) Energy requirements and conservation potential of various alternatives and mitigation measures.
>
> (f) Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures.
>
> (g) Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures. Artley p. 10.

Response:

Public scoping, collaborative public involvement, and a public comment period were used in the design of three alternatives that meet the purpose and need of the project and evaluation of the analysis in the DEIS (FEIS, p. 16; Draft ROD p. 7). The analysis of project impacts is available in Chapter 3 of the FEIS and is of high quality and scientifically accurate, as shown by the citation to many scientific articles (FEIS, pp. 43-193). This is evidence of the project's consistency with 40 CFR 1500.1.

Compliance with 40 CFR 1502.16 is documented in the following locations:

- Short-term uses of man's environment and the maintenance and enhancement of long-term productivity (FEIS p.191; FEIS chapter 3 for each resource; Draft ROD, p. 3-5).
- Environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided (FEIS, pp. 191-192; FEIS chapter 3 for each resource).
- Irreversible or irretrievable commitments of resources (FEIS, p. 192).
- Natural or depletable resource requirements and conservation potential is addressed by the inclusion of design criteria in the project to protect resources from damage to the extent practicable (design criteria are in the FEIS, pp. 26-36), and is addressed in the section of the FEIS that discusses adverse environmental effects and irreversible or irretrievable commitments of resources (FEIS, p. 192).

- Impacts to cultural and historic resources are addressed in Chapter 3 of the FEIS (pp. 174-177).
- The only structure that would be built for the project is temporary roads, and descriptions of these are included in the FEIS (FEIS p. 20; locations shown on maps in FEIS Appendix A).

The project has no beneficial or adverse impact to energy resources; therefore, consideration of energy requirements is outside the scope of the project. The project is not in an urban environment, so addressing urban quality is outside the scope of the project. NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail (40 CFR 1500.1).

The FEIS finds that all project alternatives meet requirements for the National Forest Management act through compliance with the 1989 Eldorado Forest Plan as amended by the 2004 SNFPA (FEIS, p. 192).

I find that the EIS is consistent with NEPA 40 CFR 1500.1(b), 40 CFR 1502.16, and NFMA section 5.

Issue 9. The Responsible Official failed to include some source documents and links to those documents from the Opposing Views Attachments in the Reference section of the final EIS and also, cite the specific quotes presented for the source literature in the text of the EIS, as requested by the objector during a public comment period.

The objector requested that the Responsible Official explain why the science included in the EIS is the best science, rather than the information presented in the Opposing Views Attachments. The failure of the Responsible Official to do these things violates 40 CFR 1500.1(b) (important environmental information was not made available to citizens before the decision was made), 40 CFR 1500.1(c) (the public was denied the opportunity to understand the adverse environmental consequences of the logging treatment), 40 CFR 1500.2(e) (the Responsible Official was unable to avoid or minimize adverse effects of the project upon the quality of the human environment without complete knowledge of all likely adverse effects), 40 CFR 1500.2(f) (the Responsible Official was unable to avoid or minimize any possible adverse effects upon the quality of the human environment without knowledge of the adverse effects), 40 CFR 1502.24 (the EIS ignored important, reliable, often cited information when developing the EIS, rendering the analysis devoid of "scientific integrity). Artley pp. 11-12.

Response:

The literature and news articles submitted in Opposing Views Attachment were reviewed and considered by the Forest Service, as documented in the "Response to Opposing Views Submitted by Dick Artley" in the project file. Many of the articles cited by the objector were journalism articles and opinion pieces, rather than science that is relevant to the Trestle Forest Health Project effects analysis. The FEIS cites scientific articles throughout the analysis to support the analysis and conclusions made (FEIS, Chapter 3). Adverse impacts of logging are acknowledged and disclosed to the public in Chapter 3 of the FEIS. The Responsible Official developed alternatives based on the issue that the project would have negative impacts on the California spotted owl and included design criteria in the FEIS to minimize adverse effects on resources (FEIS, pp. 26-35). The public was given a chance to comment on the DEIS, which disclosed the

negative impacts of logging, and responses to those comments were provided in the FEIS (FEIS, pp. 16-17; FEIS, Appendix D).

I find that the project made important information concerning the decision available to the public, consistent with 40 CFR 1500.1(b); the public was given the opportunity to understand the adverse environmental consequences of the project, consistent with 40 CFR 1500.1(c); the Responsible Official was able to minimize adverse effects of the project, consistent with 40 CFR 1500.2(e); and the FEIS was developed with scientific integrity by citing important, reliable and often cited information, consistent with 40 CFR 1502.24.

Issue 10. The Forest Service did not take a hard look that NEPA requires in the FEIS and BE with respect to the spotted owl and the scientific literature, and the agency's findings are arbitrary and capricious.

The Forest Service inappropriately used Tempel et al. (2016) to support a conclusion that converting high canopy cover habitat to moderate canopy cover habitat would provide a benefit to California spotted owls in the project area. The BE failed to acknowledge the results of Tempel et al. (2014a) and Conner et al. (2016), that indicate occupancy and abundance are in decline on National Forests. In our DEIS comments, we asked that the spotted owl SNAMP study results/Tempel et al. (2015) and Interim Recommendations for the Management of California Spotted Owl Habitat on National Forest System Lands, be considered, and we were unable to locate this in the FEIS. The findings in Seamans and Gutiérrez (2007) are also misrepresented, and the analysis does not acknowledge the findings of that study that indicate that logging negatively impacts owls, causing lower survival and abandonment of territories. The conclusions of these studies are contrary to the conclusions in the BE. SFL pp. 3-8. CBD and JMP p. 1-3.

Response:

The BEBA comes to a determination of project impacts on the California spotted owl for each alternative that the project "may affect individuals, but is not likely to lead to a trend towards federal listing or loss of viability" and contains analysis to support this determination (BEBA pp. 38-54), but the BEBA is lacking a clear rationale statement tying the analysis to the determinations.

Alternative 5 would retain the preponderance of existing high canopy cover as recommended in the Temple et al. (2016) study. The FEIS summarizes the Tempel et al. (2016) study, stating: "Overall, high canopy cover (>70%) and medium canopy cover (40-69%) were the most important predictors of territory occupancy (Tempel et al. 2016) with medium canopy covers positively associated with colonization on the ENF, further emphasizing the importance of maintaining medium canopy cover for spotted owl territories (Tempel et al. 2016)" (FEIS, p. 112). Alternative 5 would retain (i.e., remain untreated) from 64% to 100% of the high quality habitat (CWHR 4+ with >70% canopy cover) within the 19 home range core areas analyzed (BEBA, p. 44; FEIS, p. 123-124), and from 55% to 100% of the CWHR 4 and 5 with >50% canopy cover (BEBA, p. 43; FEIS, p. 123-124).

The Seamans and Gutiérrez (2007) circular core areas are discussed in the BEBA and FEIS (FEIS, p. 106), and the project impacts within circular core areas are analyzed for comparison to the Seamans and Gutiérrez (2007) findings (FEIS, pp. 115-116, 117, 119, 121-122, 123, 125-

126). The analysis indicates that 12 of the spotted owl circular core areas would meet the suggested threshold suggested by Seamans and Guitierez (2007) for maintaining territory occupancy under Alternative 5 (FEIS, p. 123), which indicates that 7 of the 19 circular core areas would not meet that threshold. The analysis acknowledges the findings of Seamans and Gutiérrez (2007) by stating that: "there may be a higher probability of breeding dispersal for owl territories (1,000 acres of an activity center, circular core areas) with less than 150ha (~370 acres) of mature forest in a 400ha (~1,000 acre) circle and where > 20ha (~50 acres) are altered" and also points out some uncertainty in the study findings, stating that: "Selection of new territories by breeding individuals was not correlated with mature conifer forest but may have been associated with a mate" (FEIS, p. 113). The FEIS goes on to say: "Whether owls would disperse from the territories with less than 370 acres post treatment or disperse to territories with higher quality habitat as suggested by Seamans and Gutiérrez (2007) is unknown" (FEIS, pp. 117-118).

The SNAMP findings are discussed in the response to comments (FEIS, Appendix D, p. 37), acknowledging that: "Pre-and post-management monitoring actions that are analyzed, still continue to indicate that California spotted owl viability is tied to green forest canopy cover, density, and structural factors such as multistoried canopy cover, and large down wood and snags that are associated with decadence." Retention of snags and canopy cover are incorporated into the project purpose and need (FEIS, p. 13), design features (FEIS, pp. 27, 28, 29), and alternative design that avoids high quality habitat (FEIS, p. 25), with the result that Protected Core Areas would not be treated, and the majority of high quality habitat within home range core areas and circular core areas would be avoided (BEBA, pp. 44-45; FEIS, pp. 123-126).

Population trend findings of Tempel et al. (2014) are discussed in the BEBA (p. 34). The findings of Conner et al. (2016) are not discussed, but the findings of Conner et al. (2013) are discussed (BEBA, p. 34; FEIS, p. 104; FEIS, Appendix D, pp. 36, 38, 42), which are earlier, but consistent findings concerning spotted owl population trends.

I find that the BABE lacks a clear rationale for the determinations made. I find that the analysis addressed the science brought up by the objector and that the treatments are designed and analyzed with high scientific integrity.

Issue 11. The selected alternative includes unnecessary logging, where prescribed burning alone would be feasible, and the logging is likely to decrease spotted owl reproductive potential and increase probability of breeding dispersal.

We suggested in our DEIS comments, that prescribed fire could be used as a treatment alternative to logging, especially in areas that have been logged within the past 20 years, consistent with Collins et al. (2011a). The Forest Service response to our comment was that it was only our opinion, that the study referenced could have been flawed, and that the findings were not consistent with Safford (2013). We asked the Forest Service to identify the literature cited within Safford (2013) and the results contained in the literature that supported the need to remove trees greater than 12 to 16 inches DBH to achieve wildfire resilience. The response affirms there are areas that prescribed fire can be used in most of the project area. SFL pp. 8-10.

Response:

In addition to increasing fire resilience of the forest, the purpose and need includes the needs to improve forest health by reducing stocking in over-dense stands, and allow for cost effective

treatments (FEIS, pp. 9-15). The Silvicultural Report expands this discussion by saying that thinning the intermediate diameter range of trees (10" to 30" DBH) would provide revenue to help pay for the fuel treatments (Silvicultural Report, p.35). The purpose and need also includes a need for protecting, increasing, and perpetuating old-forest ecosystem habitat to support old-forest ecosystem-associated wildlife species (FEIS, p. 15). As part of the purpose and need, concerns for old-forest ecosystem habitat played a key role in proposed action and alternative development for the project.

The fire resilience aspect of the purpose and need does not state that trees larger than 16 inches DBH must be removed, but it does discuss a desired condition for broken canopy fuel continuity (FEIS, p. 11). The forest health aspect of the purpose and need also does not state that trees larger than 16 inches DBH must be removed, but it does discuss the need to increase age class diversity so that stands are more sustainable into the future, and the need to decrease stand density to reduce inter-tree competition and associated mortality (FEIS, p. 11).

Concerns about impacts to spotted owl occupancy and population demography was identified as a significant issue from scoping documents. Two alternatives (4 and 5) were developed in response to this issue that would reduce impacts to spotted owls while still meeting the other aspects of the purpose and need (FEIS, pp. 16-17), which include reducing the of high intensity wildfire to communities and habitat (FEIS, pp. 9-11). Alternative 5 was developed to address both the concerns about impacts of the project on California spotted owl habitat and populations, and protection of communities and habitat from fire (FEIS, p. 25).

The Responsible Official strove to balance concerns for California spotted owl habitat with protecting communities from wildfire, stating: Where concerns were identified for California spotted owl as a result of treatment impacts, owl territories were looked at on a case by case basis using available habitat, history of occupancy, and risk of dispersal to determine and balance trade-offs in increased risk of loss of territorial occupancy with need to protect the community and provide for a healthy, resilient forest on this landscape. Impacts to owls were reduced to the extent that tradeoffs to the ability to modify fire behavior and forest health were not compromised on the landscape or in key positions for fire management, while still providing a higher potential for continued owl occupancy in territories that are important on the landscape (Draft ROD, p.4).

The project proposes prescribed fire on 15,812 acres within the project area, including pile burning and underburning (FEIS, p.19). Underburning is proposed as the initial treatment for on approximately 9,583 acres. Of these acres of underburning, 984 acres are high priority and anticipated to be completed within the next 5 to 10 years (FEIS, p. 20). Also, with underburning as the only treatment, some areas would need multiple underburn entries to meet desired conditions, which would not allow the project to be accomplished within a reasonable timeframe (FEIS, Appendix D, p. 20). Conversely, mechanical thinning would occur on less than 4,000 acres (FEIS, p. 25).

In response to the objectors DEIS comment related to this issue, in which the objector cited Collins et al. 2011, the Forest responded by stating that the article "was a modeling exercise, which detected no real differences in modeled landscape-level burn probabilities with diameter limited scenarios. There is no conclusion in the study that removal of trees larger than 12 inches is "unnecessary"" (FEIS, Appendix D, p. 18).

Safford et al. (2013) is addressed in one place within the FEIS (FEIS Appendix D, p. 18) and is cited for Natural Range of Variation.

I find that the Responsible Official proposes to utilize prescribed fire as the primary treatment in most of the project area, consistent with the objector's request. I find that the Responsible Official considered tradeoffs between treatments for forest health and forest fire resilience, with impacts to California spotted owl, in the decision rationale within the Draft ROD.

Issue 12. The scientific papers cited in the EIS do not support claims about removal of large trees to improve fire resilience.

The Forest Service inappropriately cite Lydersen (2013), Collins et al. (2011b), Knapp et al. (2013), and North and Lydersen (2012) to support the claim that trees larger than 16 inches DBH must be removed to achieve fire resilient forest conditions. We are unaware of any scientific results demonstrating that canopy cover must be modified for fuels purposes, but there is science that it is not necessary to reduce canopy cover or remove trees greater than 16 to 20 inches DBH to increase forest resilience to wildfire. SFL pp. 10-13.

Response:

In addition to increasing fire resilience of the forest, the purpose and need includes the needs to improve forest health by reducing stocking in over-dense stands, and allow for cost effective treatments (FEIS, pp. 9-15). The Silvicultural Report expands this discussion by saying that thinning the intermediate diameter range of trees (10" to 30" DBH) would provide revenue to help pay for the fuel treatments (Silvicultural Report, p.35).

Collins et al. 2011 is referenced in several places in the FEIS (FEIS, p. 12; FEIS Appendix D, pp. 17, 18), and Lydersen et al. 2013, Knapp et al. 2013, and North and Lydersen 2012 are discussed in one place in the FEIS (FEIS Appendix D, pp. 18). These articles are referenced for information related to fire regimes and forest structure.

I find that the analysis and response to comments appropriately relied upon science in discussions of fire regime and forest structure, and did not use the cited science to justify removing trees larger than 16 inches in diameter at breast height.

Issue 13. Rarely is logging capable of achieving restored forest conditions. Single entry logging can only be used to return canopy cover and total tree density to reference conditions. Such strategies allow degradation of high quality spotted owl habitat. SFL p. 13.

Response:

The purpose and need includes the needs to increase fire resilience of the forest in Wildland Urban Intermix, to improve forest health by reducing stocking in over-dense stands, and to allow for cost effective treatments (FEIS, pp. 9-15). The Silvicultural Report expands this discussion by saying that thinning the intermediate diameter range of trees (10" to 30" DBH) would provide revenue to help pay for the fuel treatments (Silvicultural Report, p. 35). The purpose and need also includes a need for protecting, increasing, and perpetuating old-forest ecosystem habitat to support old-forest ecosystem-associated wildlife species (FEIS, p. 15). As part of the purpose and need, concerns for old-forest ecosystem habitat played a key role in proposed action and alternative development for the project. Impacts of logging on the California spotted owl are

considered in the development of alternatives (FEIS, p. 17) and by incorporating design features to reduce impacts (FEIS, pp. 28-29 and 32-33).

The purpose and need does not claim that the purpose of the proposed logging is to achieve "restored forest conditions", but to "restore a composition of tree species and size classes that is more resilient to disturbance" (FEIS, p. 11). It goes on the explain that, "Changes in species composition and in increased density are a result of changes in fire regimes," and that "Current stand conditions in many areas of the Trestle Project are at moderate to high risk to bark beetle infestations" (FEIS, p. 12).

The potential impacts of the project on the California spotted owl are disclosed in the FEIS Chapter 3 (pp. 103-126). While some high quality habitat would be impacted by the project, the great majority of the high quality habitat would be avoided (FEIS, pp. 123-124).

The Responsible Official explains in the Draft ROD that there was a need to balance the tradeoffs between protecting communities and impacting California spotted owl habitat, stating that: "impacts to owls were reduced to the extent that tradeoffs to the ability to modify fire behavior and forest health were not compromised on the landscape or in key positions for fire management, while still providing a higher potential for continued owl occupancy in territories that are important on the landscape" (Draft ROD, p.4).

I find that the Responsible Official clearly explained the purpose and need to improve fire resiliency in the Wildland Urban Intermix, improve forest health, and protect California spotted owl habitat, and carefully considered the tradeoffs between meeting the various aspects of the purpose and need.

Issue 14. We have low confidence in the applicability of reference parameters and Natural Range of Variability described in the literature, and relied upon for this project analysis.

Natural Range of Variation provides insight into a time before alteration of ecosystem processes by Europeans. Most research that is used to establish reference parameters and Natural Range of Variation are based on "historic conditions" that are not pre-European settlement. Studies that have relied upon reference sites to provide insight into NRV are also flawed and not applicable to the project area. It would be reckless to base forest management on these reference conditions and expect to halt or reverse spotted owl population decline or provide historical forest conditions. SFL pp. 14-15.

Response:

The FEIS discusses historic conditions within the project area and the historic impacts that have altered the landscape such as livestock grazing, fire suppression and logging; but it does not discuss conditions prior to the historic impacts (FEIS, pp. 43-45). The FEIS considered existing conditions and how to move existing conditions closer to desired conditions that would provide forest health and be more resilient to wildfire (p. 9-15); the purpose and need did not include restoring the area to prehistoric conditions.

I find that the Responsible Official did not rely on faulty Natural Range of Variation science for the purpose and need and design of the project, but rather on existing conditions and likely future conditions if the project is not implemented. The existing

conditions and future conditions relied upon appropriate science, consistent with 40 CFR 1502.24.

Issue 15. Forest Service managers call for reductions in forest stand density to levels that do not provide high quality spotted owl nesting and roosting habitat, in the name of increasing resilience to future bark beetle outbreaks; however, bark beetle resilience is much more complicated than a simple stand density equation, and science has found that frequent low-severity fire can result in long-lasting bark beetle defense that increases tree survival (Vaillant et al. 2009, Stephens et al. 2014b, van Mantgem et al. 2016, Boisrame et al. 2016, Hood et al. 2015, Miller et al. 2012, Meyer 2015). SFL pp. 15-18.

Response:

The project includes protecting, increasing, and perpetuating old-forest ecosystem habitat components to conserve habitat for wildlife species as part of the purpose and need (FEIS p. 13), and references studies that have shown that the reduction in smaller diameter trees can help improve growth in larger trees which will lead to larger diameter trees and larger crowns (FEIS, pp. 48-49), which is desirable for meeting old-forest associated wildlife habitat needs including California spotted owl habitat (FEIS, p. 13). The proposed action incudes the use of prescribed fire as well as mechanical and hand treatments to meet this desired condition. Mechanical and hand treatments are preferred in some areas to be more selective in which trees would be removed (Silvicultural Report, p. 35). The current conditions of the stands are such that they are susceptible to the high fire severity and bark beetle infestation, and if not treated may be damaged and the critical benefits, including providing wildlife habitat and watershed protection, may be hindered if not treated (FEIS, pp. 10, 11 and 13).

Alternative 5 reduces the mechanical and hand thinning acres to reduce impacts on California spotted owl habitat while still providing protection of the project area from high severity fire (FEIS p. 25, Draft ROD, p. 5). The draft ROD states: "Impacts to owls were reduced to the extent that tradeoffs to the ability to modify fire behavior and forest health were not compromised on the landscape or in key positions for fire management, while still providing a higher potential for continued owl occupancy in territories that are important on the landscape" (Draft ROD, p. 4). Alternative 5 also would implement prescribed fire on 15,812 acres within the project area. (FEIS, pp. 19-20).

I find that the Responsible Official balanced the need for increased forest resilience to wildfire and bark beetles, with the need to provide protection of California spotted owl habitat. I find that the Responsible Official analyzed and disclosed the impacts of the project on California spotted owl habitat with scientific integrity, and included protection of California spotted owl habitat as part of the purpose and need.

Issue 16. The selected alternative violates the management intent of the 2004 Sierra Nevada Forest Plan amendment as it pertains to the California spotted owl, which states that treatment prescriptions should be designed to "avoid the highest quality habitat (CWHR types 5M, 5D, and 6) wherever possible."

As we have demonstrated, it is possible to achieve wildfire and drought resilience without degrading spotted owl habitat by limiting tree removal to trees less than 16" DBH and limiting treatments to prescribed fire only. We ask that a map depicting HRCAs and CWHR 5M, 5D, and

6 habitat be included in the environmental analysis. And we ask that the project avoid logging CWHR 5M, 5D, and 6 habitat types within HRCAs. SFL pp. 18-19. CBD and JMP p. 2.

Response:

No mechanical thinning would occur within California spotted owl Protected Activity Centers (PACs) (FEIS, p. 113), and most acres of high quality habitat within Home Range Core Areas (HRCAs) are not being thinned (FEIS, pp. 122-124), and thus are being avoided.

I find that the project is consistent with the management intent of the 2004 Sierra Nevada Forest Plan amendment as it pertains to the California spotted owl.

Issue 17. The Trestle project has a high likelihood of leading to a trend toward listing of the California spotted owl under the ESA and to the loss of viability because 16 HRCAs (out of 19 in the project area) will be logged in amounts that can lead to the loss of occupancy or loss of reproduction.

The BE presents information on the proportion of spotted owl territories that would be logged, and implies that the average overall proportions of logging (about 15-16%) are minimal and incapable of harming owls, but Stephens et al. (2014) found that even smaller percentages of logging in owl territories (about 5-12%) were associated with a 43% population decline. The BE's assertions otherwise are arbitrary and capricious. CBD and JMP pp. 2-4.

Response:

The Stephens et al. (2014) study is brought up in the objectors DEIS comments (FEIS, Appendix D, p. 35) and is not directly responded to. In response to that comment, population trends, impacts of thinning and fuels reduction treatments, and impacts of high severity fire are discussed with appropriate reference to peer-reviewed science (FEIS, Appendix D, pp. 36-38).

The BEBA comes to a determination of project impacts on the California spotted owl for each alternative that the project "may affect individuals, but is not likely to lead to a trend towards federal listing or loss of viability" and contains analysis to support this determination (BEBA pp. 38-54), but the BEBA is lacking a clear rationale statement tying the analysis to the determinations.

I find that the determination concerning impacts to California spotted owl is supported by an adequate level of analysis, but is lacking in a clear rationale statement.

Issue 18. The Trestle Decision continues to wrongly rely on the 2004 Framework, which needs updated in light of significant new information, and that information would change the Trestle project; therefore, the Trestle Project should not go forward until the Framework is properly addressed. CBD and JMP pp. 4-8.

Response:

The assumption that the 2004 Framework is inadequate and a Supplemental EIS must be completed before the Trestle project can proceed is incorrect for several reasons:

- The 2004 Framework is not an ongoing, agency action. Therefore, NEPA's supplementation regulations (40 CFR 1502.9(c)) do not apply to the 2004 Framework EIS; nor does NEPA require the agency to prepare a "Sierra Nevada-wide Cumulative Effects EIS," as requested by the Objector.

- Even though the Forest Service is not required to prepare a supplemental EIS for the 2004 Framework based on new scientific information, the agency is responsible for considering new information at the project level, when such information is relevant to the project being considered. In this way, new science is addressed at the time and scale that is most relevant and practical.
- The Forest Service recognizes that the state of scientific knowledge has changed since the 2004 Framework was issued and that forest plans should strive to remain consistent with the current scientific understandings. However, it is not practical to supplement programmatic EISs and revise Land and Resource management Plans (Forest Plans) every time new information arises; doing so would lead to an unending loop of programmatic planning. The National Forest Management Act (NFMA) recognized the need for stability in forest planning, and envisioned that Forest Plan Revision would only occur every 10-15 years. The 2004 Framework is approximately 12 years old, and the region has begun to revise the Forest Plan for the Sierra Nevada National Forests, with the first three plan revisions expected to be completed in 2016. It would be impractical for the agency to prepare a new EIS for the 2004 Framework while the agency is devoting its resources to revising the plans covered by the 2004 Framework through the current Forest Plan revision process. Until the Forest Plan revisions are completed for the Sierra Nevada National Forests, new scientific information and changed circumstances can be addressed in the site-specific project context, when the new information or changed circumstances are relevant to the project being considered.

Issue 19. The selection of Alternative 5 over Alternative 2 cedes too much to environmental concerns, leaving human life and property at continued peril from catastrophic wildfire, by inadequately treating the WUI defense and threat zones; Alternative 2 would adequately treat the WUI.

This is inconsistent with the 2004 Framework. These WUI zones emphasize fuels reduction over wildlife habitat concerns, and the ROD for this project reinforces that priority, while reducing treatment to inadequate levels. Grizzly Flats Fire Safe Council pp. 1, 3, 5.

Response:

While the project is in WUI land allocation, it is also within California spotted owl PACs and California spotted owl Home Range Core Areas (FEIS, pp. 15-16); requiring a balanced approach to treatments.

The Responsible Official stated:

> I considered a number of different criteria when deciding which alternative to select. However, the most important objectives to me are to improve forest health and reduce surface and ladder fuel accumulations across the project area in order to effectively reduce the risk of large, potentially damaging wildfires on communities, infrastructure, and forest resources including the watersheds that provide the domestic water supply for Grizzly Flats. Any action significant enough to truly make a change in the future trajectory of forest conditions and reduce the risk of large, high intensity wildfires on a landscape basis may have short-term unwanted effects. I am sensitive to these concerns and I have considered the question of not only how much treatment is too much, but conversely, at what point a planned treatment level is too little to actually change fire behavior and improve forest health on a landscape basis (ROD, p.3).

The Responsible Official strove to balance concerns for California spotted owl habitat with protecting communities from wildfire, stating: "Where concerns were identified for California spotted owl as a result of treatment impacts, owl territories were looked at on a case by case basis using available habitat, history of occupancy, and risk of dispersal to determine and balance trade-offs in increased risk of loss of territorial occupancy with need to protect the community and provide for a healthy, resilient forest on this landscape. Impacts to owls were reduced to the extent that tradeoffs to the ability to modify fire behavior and forest health were not compromised on the landscape or in key positions for fire management, while still providing a higher potential for continued owl occupancy in territories that are important on the landscape" (draft ROD, p.4).

The analysis shows that "At the landscape level, Alternative 5 is comparable to Alternative 2 (Proposed Action)… at the landscape level, Alternative 5 would efficiently reduce the spread and intensity of a wildfire within the project area" (FEIS, p. 76, draft ROD, p. 5). When Alternative 2 and 5 are compared, Alternative 5 shows only slightly higher crown fire activity (FEIS, p. 76).

I find that the Responsible Official carefully weighed concerns about fire resilience and California spotted owl habitat, selecting an alternative that would provide habitat protection benefits and increase protection of the local communities and their water supply, consistent with the 2004 Sierra Nevada Forest Plan Amendment.

Issue 20. Studies have shown that high severity, stand-replacing megafires pose a threat to old-forest species and that reducing frequency of large, severe fires could benefit spotted owls, and forest restoration may be more compatible than previously believed (Jones et al. 2016, Franklin and Agee 2003); therefore, Alternative 2 should have been selected, rather than Alternative 5. Grizzly Flats Fire Safe Council p. 5. Grizzly Flats Community Services District pp. 1-2.

Response:

The Purpose and Need for this project included a need for protecting, increasing, and perpetuating old-forest ecosystem habitat to support old-forest ecosystem-associated wildlife species, such as the northern goshawk and the California spotted owl due to risk of loss from wildfire or insect outbreaks (FEIS, p. 15). As part of the purpose and need, concerns for old-forest ecosystem habitat played a key role in proposed action and alternative development for the project.

Concerns about impacts to spotted owl occupancy and population demography was identified as a significant issue from scoping documents. Two alternatives (4 and 5) were developed in response to this issue that would reduce impacts to spotted owls while still meeting the other aspects of the purpose and need (FEIS, pp. 16-17), which include reducing the of high intensity wildfire to communities and habitat (FEIS, pp. 9-11). Alternative 5 was developed to address both the concerns about impacts of the project on California spotted owl habitat and populations, and protection of communities and habitat from fire (FEIS, p. 25).

The ROD states:

> I considered a number of different criteria when deciding which alternative to select. However, the most important objectives to me are to improve forest health and reduce surface and ladder fuel accumulations across the project area in order to effectively reduce the risk of large, potentially damaging wildfires on communities, infrastructure, and forest

> resources including the watersheds that provide the domestic water supply for Grizzly Flats. Any action significant enough to truly make a change in the future trajectory of forest conditions and reduce the risk of large, high intensity wildfires on a landscape basis may have short-term unwanted effects. I am sensitive to these concerns and I have considered the question of not only how much treatment is too much, but conversely, at what point a planned treatment level is too little to actually change fire behavior and improve forest health on a landscape basis. I must balance predicted risks and expected benefits (ROD, p. 3).

The Responsible Official strove to balance concerns for California spotted owl habitat with protecting communities from wildfire, stating:

> Where concerns were identified for California spotted owl as a result of treatment impacts, owl territories were looked at on a case by case basis using available habitat, history of occupancy, and risk of dispersal to determine and balance trade-offs in increased risk of loss of territorial occupancy with need to protect the community and provide for a healthy, resilient forest on this landscape. Impacts to owls were reduced to the extent that tradeoffs to the ability to modify fire behavior and forest health were not compromised on the landscape or in key positions for fire management, while still providing a higher potential for continued owl occupancy in territories that are important on the landscape (draft ROD, p.4).

The FEIS fire analysis shows that "At the landscape level, Alternative 5 is comparable to Alternative 2 (Proposed Action)… Alternative 5 would efficiently reduce the spread and intensity of a wildfire within the project area" (FEIS, p. 76, draft ROD, p. 5). When Alternative 2 and 5 are compared, Alternative 5 shows only slightly higher crown fire activity (FEIS, p. 76).

I find that the Responsible Official carefully weighed concerns about fire resilience and impacts of the project on California spotted owl habitat, selecting an alternative that would provide habitat protection in the short-term while increasing protection of habitat, and the local communities and their water supply from fire.

Issue 21. Open canopy forest allows greater precipitation to infiltrate soil, which adds to watershed storage and regional aquifer basins, and would positively affect watershed hydrologic flux. Grizzly Flats Fire Safe Council p. 6. Grizzly Flats Community Services District p. 2.

Response:

Impacts to groundwater are expected to be negligible or minor (Hydrology Report, p. 27). Impacts of all alternatives on water yield, peak flow, and timing of flow for all streams in the project area and downstream of the project would likely be negligible and not measureable (FEIS, p. 89; Hydrology Report, p. 26). Research indicates that a 20% reduction of basal area is needed before changes to water yields are detectable (FEIS, p. 89; Hydrology Report, p. 26), and the project would decrease basal area by approximately 17% (FEIS, p. 89; Hydrology Report, p. 26).

The purpose and need of the project are to reduce fuel loading, improve forest health, promote old-forest ecosystem habitat components, improve access, reduce sediment from roads, and reduce impacts to soil and watershed resources related to dispersed camping, roads and trails (FEIS, pp. 9-15); treatments to alter groundwater supplies or water yield are outside the purpose and need of the project.

I find that analysis of the effects of the project on groundwater are consistent with the best available science and that groundwater would be negligibly impacted by all alternatives.

Issue 22. Under Alternative 5, there is still an area of concern for problematic wildfire in the northern portion of the project area, which could impact watersheds that are the sole purveyor of drinking water to the community of Grizzly Flats (Big Canyon Creek and North Canyon Creek watershed).

The northern portion of the project encompasses these watersheds. Dense fuel loading and surface to crown ladder fuels within watersheds and drainages cause these drainages to burn with high rate of spread and high severity fire effects. Grizzly Flats Fire Safe Council pp. 6-7.

Response:

The Responsible Official stated: "I considered a number of different criteria when deciding which alternative to select. However, the most important objectives to me are to improve forest health and reduce surface and ladder fuel accumulations across the project area in order to effectively reduce the risk of large, potentially damaging wildfires on communities, infrastructure, and forest resources including the watersheds that provide the domestic water supply for Grizzly Flats. Any action significant enough to truly make a change in the future trajectory of forest conditions and reduce the risk of large, high intensity wildfires on a landscape basis may have short-term unwanted effects. I am sensitive to these concerns and I have considered the question of not only how much treatment is too much, but conversely, at what point a planned treatment level is too little to actually change fire behavior and improve forest health on a landscape basis" (ROD, p.3).

The Responsible Official strove to balance concerns for California spotted owl habitat with protecting communities from wildfire, stating: "Where concerns were identified for California spotted owl as a result of treatment impacts, owl territories were looked at on a case by case basis using available habitat, history of occupancy, and risk of dispersal to determine and balance trade-offs in increased risk of loss of territorial occupancy with need to protect the community and provide for a healthy, resilient forest on this landscape. Impacts to owls were reduced to the extent that tradeoffs to the ability to modify fire behavior and forest health were not compromised on the landscape or in key positions for fire management, while still providing a higher potential for continued owl occupancy in territories that are important on the landscape" (draft ROD, p.4).

The analysis shows that "At the landscape level, Alternative 5 is comparable to Alternative 2 (Proposed Action)… at the landscape level, Alternative 5 would efficiently reduce the spread and intensity of a wildfire within the project area" (FEIS, p. 76, draft ROD, p. 5). When Alternative 2 and 5 are compared, Alternative 5 shows only slightly higher crown fire activity (FEIS, p. 76).

I find that the Responsible Official carefully weighed concerns about fire resilience and California spotted owl habitat, selecting an alternative that would provide habitat protection benefits and increase protection of the local communities and their water supply.

Issue 23. Opening the forest canopy would aid against further tree mortality due to bark beetle infestation, and provide for greater health in the remaining tree stands; therefore, select

Alternative 2. Grizzly Flats Fire Safe Council p. 6. Grizzly Flats Community Services District p. 2.

Response:

The purpose and need for the project includes improved forest health (FEIS, pp. 9-11). Alternative 5 would treat approximately 1,383 fewer acres than Alternative 2 (Draft ROD, p. 5). Alternative 5 would result in an increase in stand vigor and a reduction in stand density on 4,869 acres where thinning would occur (Draft ROD, p. 5).

Alternative 5 strives to strike a balance between the needs for improved forest health and protection of wildlife habit (Draft ROD, p. 3). Alternative 5 was selected in the Draft ROD as it was "deemed to be the most balanced approach to address the purpose and need and best address concerns raised by the public" (Draft ROD, p. 4).

I find that the Responsible Official properly discussed and analyzed the environmental impacts when considering the balance between the varying purposes and needs of the project.