Appendix N – Response to Comments

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N.1. Introduction and Process

This appendix summarizes and presents the Forest Service response to public comment received during the official comment period for the LTBMU DEIS and Revised Forest Plan, which ran from June 1, 2012 to August 29, 2012. The Forest Service received 17,958 letters and emails during this period.

The concerns expressed in the comments range in nature from broad issues to technical specifics. The extensive public response demonstrates the intense interest, depth of feeling, and level of concern regarding the management of NFS lands in the Lake Tahoe Basin. The comments we received assisted us in improving both our Revised Forest Plan and the accompanying environmental analysis. We are grateful to all who commented and thus helped us shape the Forest Plan for management of NFS lands in the Lake Tahoe Basin.

As a federal agency, we are required by the National Environmental Policy Act (NEPA) to solicit public comment on our draft plans involving significant actions. We are directed to "assess and consider comments both individually and collectively." The **Content Analysis** and **Response Process** sections explain the process we followed in assessing and considering comments. The responses follow in the main body of the appendix, and are arranged by subject matter. Thus, if a letter included comments on several topics, the responses will be found in different parts of the document.

All original comment letters/emails, and other supporting documents are available in the administrative record at the LTBMU Supervisor's Office in South Lake Tahoe, CA. Letters from federal, state, and local agencies and elected officials are reproduced in this appendix, as required by Forest Service policy.

Content Analysis

The process of identifying comments in a letter/email and grouping them according to their content is called content analysis. Content analysis is a systematic process of logging, reading, numbering, and coding all public comments. The process ensures that every comment is read, analyzed, and considered. Content analysis helps to organize the comments in a logical manner so a meaningful response can be prepared.

Both original and form letters and emails were received. Original letters/emails include both those submitted by individuals and those from agencies and organizations. Form letters are two or more letters/emails that contain identical text but are submitted by different people.

Each letter or email may contain anywhere from one to several hundred comments. A comment is an identifiable expression of concern within a letter or email. The 17,958 letters and emails we received contained over 3,300 individual comments.

The initial phase of content analysis was completed by a specialized Forest Service unit, the NEPA Services Group. Each original letter/email and each form letter/email was

entered in a database, read in its entirety and discrete comments identified within them. If a commenter added information to a form letter, and the additional information was not redundant to the comment already in the form itself, this content was also analyzed. Each comment was assigned a unique tracking number and coded (i.e. grouped) according to content.

In the second phase, LTBMU Planning staff read each of the comments and refined the content groupings. Comments on the same subject were grouped and summarized into public concern (PC) statements that captured the essence of similar comments. A total of 520 PC statements were drafted.

The main body of this document consists of the Forest Service response to the comments, summarized and organized by the PC statements. Due to the volume of comments and the similarity of many comments, we chose to summarize the Forest Service response to the comments. All comments associated with a PC statement were considered in the response. The PC statements and our responses are organized by sections that mirror the order of the resource topics in the FEIS.

Response Process

The Forest Service has a responsibility under NEPA to first "assess and consider comments both individually and collectively" and then to "respond...stating its response in the final statement." The content analysis process described in the previous section considers comments received "individually and collectively." The main body of this document provides the required response to the comments, summarized and grouped by PC statements.

While the vast majority of the comments were relevant, a few fell outside the scope of decision-making for the LTBMU Plan revision. Generally, the types of comments and concerns that were considered outside of the scope include those that:

- Do not address the purpose, need, or goals of the LTBMU Plan (e.g., propose an action in areas outside the LTBMU)
- Do not directly relate to the actions proposed in the alternatives
- Suggest an action not appropriate for the current level of planning (e.g., site-specific decisions to construct new roads, campgrounds or facilities, to offer special use permits)
- Relate to day- to-day operational issues such as law enforcement procedures or road maintenance
- Propose untenable restrictions on management of the LTBMU or conflict with approved plans not being revised in the LTBMU planning process

The NEPA encourages all interested parties to submit comment as often as they wish regardless of age, citizenship, or eligibility to vote. Respondents may include businesses, people from other countries, children, and people who submit multiple responses. Every

substantive comment and suggestion has value, whether expressed by one respondent or many.

It is important to recognize that the consideration of public comment is not a vote-counting process in which the outcome is determined by the greatest number of comments on a particular issue. Relative depth of feeling and interest among the public can serve to provide a general context for decision-making. However, it is the relevance, specificity, and factual accuracy of comment content that serves to provide the basis for modifications to planning documents and decisions. Further, those who respond do not constitute a random or representative public sample because they are self-selected, unlike scientifically designed surveys or polls.

The results of this process serve two related purposes in public land management planning. The first is to fulfill the legal mandate of the NEPA and accompanying CEQ regulations. These statutes require planning teams to seek public comment on proposed actions and use them to clarify, modify, or revise analyses and conclusions in order to improve agency decision-making. The public thus provides a vital contribution to planning efforts.

The second goal is to provide the public a review of the range of concerns, background issues, and substantive comment submitted on a project, and to inform each commenter about what actions may have been taken in response to his or her comments.

The Forest Service responded to the comments in the following ways, as prescribed in 40 CFR 1503.4:

- Modifying alternatives
- Supplementing, improving, or modifying the analysis documented in the DEIS
- Making factual corrections
- Explaining why the comments do not need further agency response

N.2. Response to Comments

Planning

Planning Regulations

PC 162: The Forest Service should clarify which planning regulations they are using.

Response: Section 1.3 of the FEIS discloses which planning regulations are being used for this Forest Plan Revision Process

PC 519: The Forest Service should ensure that requirements of planning regulations are met

Sample Comment: *The 1982 Rule sets out "minimum requirements for integrating individual forest resource planning into the forest plan" at Sections 219.14 through 219.26. See 36 CFR § 219.13. In addition, Section 219.27 provides the "minimum specific management requirements to be met in accomplishing goals and objectives for the National Forest System."*

Response: The intent of Sections 219.14 through 219.27 of the 1982 Planning Rule have been met with this Forest Plan Revision.

Evaluations have been completed for Timber Suitability (Appendix G) and for Wilderness (Appendix C), including lands designated as Inventoried Roadless Areas.

Standards and Guidelines in the plan ensure that resources, such as vegetation, Recreation, Minerals, Water, Soils, Cultural and Historic, and Fish and Wildlife are protected.

Grazing allotments on this forest are currently vacant. Conditions that have changed since the 1988 Forest Plan, such as land purchases, have not affected those allotments. At the project level, the suitability and capability of those lands for grazing would be evaluated. Effects from grazing were analyzed in Section 3.4.18 of the FEIS.

Grass Lake has been designated as a Research Natural Area (March 12, 1992).

Diversity of plant, animal and tree species has been accounted for in developing the desired conditions for this forest plan.

Management Requirements set out in 36 CFR Section 219.27 have been met throughout the forest plan. Desired conditions as well as standards and guidelines lay out how resource protection, vegetation manipulation, silvicultural practices, riparian areas, and soil and water resources will be protected. Even-aged management is not considered as a silvicultural practice in this forest plan.

PC 517: The Forest Service should meet requirements of planning regulations for riparian protection

Response: The Plan includes numerous desired conditions and standards and guidelines designed to protect riparian areas, primarily in the Physical Resources and Biological Resources sections. Some, but not all, of the Forest Plan components that address riparian areas are found under section headings for Stream Environment Zones (SEZs). The SEZ concept includes riparian areas as well as other wet areas such as bogs and fens, meadows, and marshes.

In requiring Plans to provide "special attention" for riparian areas, The 1982 Planning Regulations (219.27e) do not, as suggested by the commenter, prescribe a "buffer" intended to exclude management practices; rather they require consideration of a number of factors when "determining what management practices may be performed within these areas or the constraints to be placed upon their performance."

PC 65: The Forest Service should include a "no grazing" alternative and should analyze effects of grazing as required in planning regulations.

Response: Effects from grazing were analyzed in section 3.4.18 of the FEIS. Changes in the range resource were analyzed and any new land acquisitions within the allotments were identified. A brief analysis of the effects of the alternatives on range resources is included.

Consequences of grazing on other resources were not analyzed because all allotments are currently vacant and no applications are pending. As no grazing is occurring, there are not currently any new or ongoing consequences from grazing. Areas grazed in the past are recovering and some have undergone restoration; these trends would continue in the absence of future grazing.

Consequences of a no grazing alternative would be similar to the current condition and trends described for all potentially affected resources in the FEIS and that is why it was not analyzed in detail.

Decision Process

PC 29: Citizens or Congress should vote on changes to public use of NFS lands

Response: Decisions regarding use of NFS lands managed by the LTBMU are made by the Forest Supervisor of the LTBMU. Authority to make decisions is outlined in Forest Service Manual 1230 – Delegations of Authority and Responsibility.

Projects and plans are developed and analyzed according to the National Environmental Policy Act, which requires public involvement. The LTBMU lists current projects on the Schedule of Proposed Actions, which is available at: http://www.fs.fed.us/sopa/forest-level.php?110519. The list is updated regularly and includes contact information for the project manager. It is a good way to stay informed on what is happening on the LTBMU and to make your voice heard on projects that interest you.

PC 158: the Forest Service should give more weight to the comments of local residents than to comments of those living outside the Tahoe Basin.

Sample Comment: *"There are far too many people who live out of the area who try to govern our life style here at Tahoe…They don't understand the environment and get carried away over certain issues without seeing the complete picture."*

"It is my understanding that the majority of persons requesting additional wilderness areas are not residents of the Lake Tahoe area but live out of the region."

"People that do not live in this area should not be able to write the rules for us."

Response: 36 CFR 219.4 (1)(i) requires that the responsible official engage the public, including those interested at the local, regional, and national levels; which we have done. The process and procedure for responding to public comments is set forth in the NEPA and the CEQ implementing regulations (40 CFR 1503.4, 1506.6) as described in FSH 1909.15.

All comments on the DEIS were compiled, organized, read, and analyzed. Individual comments that relate to a particular topic of concern or resource consideration are identified, as well as the reason or rationale for the comments. It is the relevance, specificity, and factual accuracy of comments that serve to provide the basis for modifications to planning documents and support for making an informed decision. We do recognize that decisions and management actions for a national forest can directly affect those living in or near it. We appreciate your comments which include your personal and local knowledge of the LTBMU.

PC 160: The Forest Service should ensure that decisions are not made in haste and are given due consideration. The Forest Service should provide equal consideration to views of individuals and special interest groups with lots of money.

Response: Before decisions are made, resource specialists and Forest leadership review and respond to these comments, revise the preferred alternative in response to the comments, complete any additional analysis needed. This process requires considerable time and thought. We do give equal consideration to all views.

Purpose and Need

PC 268: The Forest Service should include species viability in the Purpose and Need.

Response: The Purpose and Need for Forest Plan Revision is described in Section 1.4 of the FEIS. Species viability was not identified as a new issue, trend or management concern which would change from those identified in the 1988 Forest Plan. We do however, believe that the Forest Plan provides for species viability as is required in the regulations.

Maintaining species viability, like other concepts within the 1982 regulations, is a background principle and guiding force that influences all alternatives, even though they are not specifically called out in the Purpose and Need. It is unnecessary and would be

impractical to include every regulatory concept in the 1982 rules as part of the Purpose and Need.

Management of NFS Lands

PC 27: The Forest Service should use tax dollars efficiently and manage forest land properly.

Sample Comment: *"This taxpayer would like to voice the concern that his dollars go towards resource preservation, wildlife preservation and equitable shared use of the land that is used for recreation throughout the four seasons."*

Response: Opinions varied widely on appropriate use of tax dollars and proper forest management. We are in agreement with the comment above.

PC 52: The Forest Service should actively promote use of best practices.

Response: Use of best practices is actively promoted and will continue to be actively promoted under the Revised Forest Plan. The Strategies and Standards and Guidelines for all resource areas are designed to promote best practices. Best practices include the Best Management Practices (BMPs) for water quality management prescribed by the Pacific Southwest Region and the Forest Service National Core Best Management Practices. Use of these practices is required by the water quality standards and guidelines in the Revised Forest Plan.

PC 92: The Forest Service should preserve and protect NFS lands for current and future generations

Sample Comment: *"I believe you have an important decision ahead of you as the National Forest is so important to the many residents and visitors to our area. My parents first brought me to Tahoe in 1960 and I fell in love with the woods. It is important to me that it's preserved for my children and grandchildren."*

"The Forest Service often has a difficult mandate - but I grew up believing in the ideal of public wild lands for nature to carry on in perpetuity and The Forest Service as the guardian of that ideal. My husband and I moved to the foothills of the Sierra to be closer to the places we love to recreate; hike, camp, ski, boat, and bicycle. The solitude, quiet, and beauty rekindle my camaraderie with the earth and fill my heart with joy and awe. I feel very fortunate to have such locations to visit right in my 'backyard.' The hopeful child in me wants to believe that careful consideration will be given for these ideals, that I hope you share…"

"As a citizen who cares about the environment and the wildlife that inhabits it, I believe we must do everything within our power to protect both. Future generations deserve to inherit a healthy environment and a thriving wildlife population."

Response: We are pleased to see so many people expressing this concern. We have done our best to develop a Revised Forest Plan that reflects our role as public land stewards. We believe the Revised Forest Plan balances natural resource conservation and management with a variety of dispersed and developed recreation opportunities.

We also agree with the commenter who stated *"While Multiple Use management is a goal of the Forest Service, it does not mean that all the uses need to be accommodated in one place at the same time. The Lake Tahoe Basin is finite and fragile. It cannot be sliced and diced by unlimited demand for recreation."*

PC 121: The Forest Service should focus on illegal marijuana growing on NFS lands.

Response: While illegal marijuana growing significantly impacts National Forest Lands in California, it is a relatively rare issue in the Lake Tahoe Basin, due to the short growing season and high level of public land use.

PC 175: The Forest Service should provide a balance between environmental protection and economic health.

Sample Comment: *"What would Lake Tahoe be without the forests, clear waters and fresh air? Just another barren place with a bit of gambling and drinking going on. Management with both economic and environment involved, will still leave pristine, healthy wilderness."*

Response: As stated in the Planning for Sustainability section of the Plan Introduction, the Revised Forest Plan addresses ecological, social, and economic sustainability. Management direction in the Revised Forest Plan focuses on both the natural and human environments. The Tahoe Basin economy is largely based on recreation and tourism, and we recognize the importance of National Forest lands as a setting for this economy. We agree with this commenter that we can contribute to the Basin's economic health while providing adequate environmental protection. In the Social and Economic section of the FEIS (3.4.21) we have added additional analysis of the economic contribution of the National Forest to the local economy.

PC 38: The Forest Service should ensure that management practices are the best for the land and not just more practical economically

Sample Comment: *"The USFS needs to apply sound science to the management of forest lands and not merely follow the whims of commercial loggers."*

"…harvesting larger trees makes the economics of forestry activities less expensive, but the "usual" way of doing business may not be the right way, given USFS objectives"

Response: No portion of the LTBMU has been identified as suitable for timber production. Therefore, economics are not a primary consideration for forest management at the LTBMU. Consequently, cut trees will only be removed for public health and safety or ecological restoration purposes.

PC 106: The Plan should provide safeguards to prevent opening up the lands to those that would exploit the resources for their own economic gain

Sample Comment: *"Your purpose is to maintain the environment, not support corporations."*

"…but this ignores the economic benefits of keeping Tahoe the jewel of the Sierra."

"…protect our public lands from private profit's exploitation."

Response: The LTBMU has no mining or active range uses at this time, as well as no lands identified as suitable for timber production. In addition, our recreation and lands special uses are controlled by a permitting process that is outlined in law, regulation and Forest Service policy. Recreation and lands special uses help us to deliver a diverse number of recreation opportunities. Development on private lands is outside the scope of this Forest Plan, but would be regulated by the TRPA and other local and state agencies. With this in mind, exploiting the land for economic gain is not a major concern with this Forest Plan.

PC 122: The Forest Service should have more staff on the ground to reduce damage and conflicts

Sample Comment: *"Recreation use has increased at the Lake on National Forest… I've yet to see a USFS ranger or other person at a trailhead parking area or along any trail on National Forest land."*

"More should also be done to ensure that OSVs adhere to current restrictions and stay in designated areas and marked routes."

Response: The LTBMU has staff and law enforcement on the ground during busy times of year, such as during the 4th of July. Providing staff on the ground is constrained by our budgets. While we do believe that having 'boots on the ground' in order to enforce our rules and regulations is very important, it is not always possible. Therefore, we focus our efforts on the areas where there is potential for resource damage and conflicts. All of our field-going staff are encouraged to act as forest protection officers and reports any resource damage or conflicts when they feel it is safe to do so. We also encourage the public to report the same damage or conflicts, when it is safe to do so, so that we can appropriately determine where to concentrate our staff time.

PC 176: The Forest Service should make the environment the first priority.

Sample Comment: *"FS should prioritize public safety over environmental issues."*

"FS should make Lake Tahoe the first priority"

"Lake Tahoe's environment has been degraded by heavy human use and development throughout the years, and frankly, it's time to give back to the lake by strengthening protection of the public lands around the Basin."

"The environment there is unique and extremely precious and valuable.'

"…we need to ensure that any future change we make includes the concerns of all of those who can't speak for themselves (flora, fauna, water, soil)."

"You have the power in your hands to protect the life of the forest and by doing that protect the health of so many, many people."

Response: The Forest Service is mandated to manage NFS lands for multiple-uses. As such, we are asked to balance environmental protection and use of resources (including recreation). We believe that the preferred alternative does strike a good balance between these considerations.

PC 181: The Forest Service should recognize its limited ability to control nature

Sample Comment: *"We do not rule the planet, it rules us! It would be wise to remember that."*

Response: We do recognize that we cannot control nature. The Revised Plan emphasizes restoring natural ecosystem processes. This concept recognizes that nature is ultimately in control, and our role is to implement projects that better enable natural systems to adapt to change. Restoring fire to the landscape, or management that mimics the effects of fire, is emphasized. The roles of natural disturbances such as drought, insect outbreaks, and changing climate are recognized and accounted for in management strategies.

PC 206: The Forest Service should include criteria for determining if actions would compromise sustainability

Response: The overall Desired Conditions in the Forest Plan are intended to describe sustainable social, economic and ecological conditions. Objectives are milestones in meeting the Desired Condition, Standards and Guidelines act as the boundaries, and the monitoring plan is designed to gauge where we are at in meeting the Desired Conditions and determine if we need to make any adjustments. Therefore, when taken as a whole, the Forest Plan is designed to determine whether our actions would compromise sustainability.

PC 515: (Many respondents expressed their love of the forests of the LTBMU and advocated for their protection as well as the protection of Lake Tahoe itself.)

Response: We thank you for your comments and believe that the preferred alternative will provide those protections to the lake and the forests for the life of the plan and into the future.

PC 520: The Forest Service should address its relationship with TRPA

Response: The Forest Service relationship with TRPA is described in the Forest Plan Introduction (Volume II of the FEIS), under the heading "*Relationship to Plans of Other Agencies*."

PC 211: The Forest Service should encourage humans and animals to live in harmony with each other.

Response: The Forest Service is a land manager and does not manage wildlife itself, only habitat. Conservation education programs inform residents and visitors of all ages about the natural environment in which they live, work, and play. There are no programmatic differences in conservation education between alternatives.

PC 226: The Forest Service should protect and respect the land and all creatures.

Response: The Draft Management Plan contains management direction that aids in the protection of terrestrial and aquatic species as well as associated habitat. The specific direction can be reviewed in Desired Conditions in the Revised Forest Plan as well as the Objectives and Standards and Guidelines that are intended to aid in the attainment of those Desired Conditions.

Forest Plan Management Direction

PC 64: The Forest Service should clarify the relationship of the Draft Plan to the other alternatives - what applies in which alternative.

Response: The Revised Forest Plan applies to Alternative E – The Preferred Alternative. To further aid the reader in understanding how the Forest Plan would differ by Alternative, we have included two Appendices. Appendix H compares the management strategies by Alternative. Appendix I compares the Alternatives by Objective. Appendix J is also included to show the Forest Plan Standards and Guidelines from the existing Forest Plan, which is Alternative A.

PC 134: The Forest Service should include specific standards and guidelines to protect the Upper Truckee River until Congress acts on the agency's recommendation.

Response: A Forest Plan Standard has been added that requires management of the recommended segment of the Upper Truckee River to protect its free-flowing status and the outstandingly remarkable river values identified in the Record of Decision for the Eight Eastside Rivers FEIS (1999). The specific management requirements are in FSH 1909.12, Chapter 82.5 – Interim Management of Eligible or Suitable Rivers.

PC 195: The Forest Service should identify smoke management BMPs in the Forest Plan.

Response: Smoke management BMPs are developed at the project specific level. Because of the variability in both weather as well as placement on the landscape involved in planning prescribed fire it does not make sense to identify smoke management BMPs in the Forest Plan. However, the Forest Plan does identify desired conditions, objectives, strategies and standards and guidelines which aid in the development of project specific smoke management BMPs.

PC 274: The Forest Service desired conditions should incorporate the range of natural disturbances (this does not include disturbances caused by logging) that comprise a fully functioning, healthy ecosystem, including fire and insect pests and the contribution of resulting dead standing and fallen trees to soil productivity and wildlife habitat.

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

PC 58: The Forest Service should make the time periods for attainment for objectives more specific - "the life of the Plan" is not specific enough.

Sample Comment: *"The planning horizon of the Plan is stated as the "next 10 to 15 years" on page 1- 6 of the EIS. However, the current Plan has been in effect for the past 24 years. Therefore, the LTBMU could be required to implement actions by 2023 (assuming the Plan is adopted in 2013 and has a 10 year life), by 2028 (assuming the Plan is adopted in 2013 and has a 15 year life) or by whenever if there is a lack of funding or policy direction to prepare a new Plan as required by law. These problems must be addressed by stating specific dates (month, day and year) or specific time (e.g. 5 years) from Plan adoption for implementing these Objectives. Also, the Plan should indicate how implementation would be staged so as to avoid potential significant impacts and to judge progress towards full implementation of the Objective."*

Response: We have revised the Objectives to make them more consistent. It is our belief that future funding will primarily be allocated by Congress. While we have estimated future funding levels for analysis purposes, in fact, we cannot know with certainty what level of funding we will receive in any given year. Changing conditions such as wildfires can shift priorities, adding additional uncertainty. Thus it is not possible to be as precise as the commenter has requested. The details of staging implementation will be covered in project-specific NEPA analysis.

PC 85: The Plan should include the nonurban Santini-Burton parcels in surrounding or adjacent management areas instead of having them in their own management area

Response: Parcels acquired under the Santini-Burton Act were designated as a separate management area in the 1988 Forest Plan and this designation is continued in the Revised Forest Plan, largely because the Santini-Burton Act restricts the uses of these lands. Treating them as a management area helps to ensure that the provisions of the Act are followed.

PC 208: The Forest Service should ensure that all standards are specific enough to preclude exceptions.

Response: While some Forest Plan S&Gs are very specific, others are broader to accommodate a wide range of conditions; in these cases more specific direction is prescribed at the project level. We have updated standards and guidelines to improve the process by which resources are considered by interdisciplinary planning teams in project design.

PC 81: The Forest Service should demonstrate that Plan components are supported by science.

Response: The FEIS explains the effects of implementing the Plan components in an analysis that is backed by science. The FEIS also incorporates the results of a science review that evaluated the use of science in the FEIS.

PC 508: The Forest Service should clarify management direction with respect to Alpine Meadows and Northstar Ski Area boundaries.

Response: Ski area permit boundaries are described in the special use permits. The Revised Forest Plan does not alter any special use permits currently in effect. The FEIS has been clarified by removing information that may have been confusing.

Backcountry Management Area

PC 4: The Forest Service should expand backcountry management areas.

Sample Comment: "*The Draft Plan fails to classify lands as backcountry that are, in fact, used primarily for backcountry recreation. Additional lands should be classified as "backcountry" and "semi-primitive non-motorized", including areas north and south of the Mt. Rose highway, the area east of Brockway Summit, and Blackwood Canyon."*

Response: As described in Chapter 2 of the FEIS, Alternative E proposes to increase the amount of acreage managed as Backcountry Management Area by approximately 3,800 acres from what is proposed in Alternatives A, B, and C. The Stanford Rock Backcountry area lies between Blackwood and Ward Creeks. A number of other factors, other than solely recreation use, are considered when designating lands as Backcountry. This area was proposed because it only has one road, at this time the need for more roads is not anticipated for future management, it contains PACs, its boundaries were drawn to exclude the WUI, and it is directly adjacent to wilderness and roadless areas. Additional Backcountry areas were proposed in Alternative D.

In the DEIS, some IRA lands were incorrectly mapped as General Conservation. This mistake has been corrected in the FEIS.

PC 15: The Forest Service should prohibit all development and motorized use in Backcountry

PC 383: The Forest Service should provide more protective management direction to maintain the wilderness character of roadless areas.

Sample Comment: "*The backcountry and semi-primitive non-motorized designations in the Draft Plan arbitrarily exclude over-snow vehicles from their non-motorized designations."*

Response: Alternatives B, C, D and E propose to manage Backcountry Management Areas as described in the Revised Forest Plan Part 2.3 Management Areas and Suitable Uses. Development of these lands is generally prohibited. Exceptions are noted in the Suitable Uses and Management Activities Table in the Revised Forest Plan. Management activities are minimal, but may have a limited influence on the landscape. Native surface roads are present in some backcountry areas and road re-construction may be permitted in some Backcountry areas where additional restrictions do not apply. OSV use is limited to designated areas (see Revised Forest Plan Map 18).

Backcountry Management Areas fill a recreation niche between designated Wilderness and General Conservation management areas. Most Backcountry Management Areas are also Inventoried Roadless areas, which must be managed such that future Wilderness designation is not precluded.

The 1988 Plan included exceptions to the Semi Primitive Non-Motorized ROS class for OSV use in several IRAs. These exceptions are carried forward in all of the alternatives, which retain current open and closed designations for OSV use.

The ROS Users Guide describes types of access and facilities, lists typical uses for each class, and other information, including recreational settings. ROS classes are not designations or management prescriptions but serve as a guide for designing management prescriptions (in this case, backcountry). The ROS classes provide planning guidance, but should not be construed as absolute direction. The ROS Users Guide recognizes the potential for seasonal differences in setting classes. Activity setting and experience opportunities may change between the seasons, for example, OHV use versus OSV use.

PC 76: FS should retain all roadless areas in their current status and manage them to retain roadless character.

Response: Each alternative proposes retaining all previously identified Inventoried Roadless Areas (IRAs) and will manage them as Backcountry Management Areas. Backcountry Management Area management concepts (e.g. natural landscapes, dispersed recreation, and limited management) are described in Section 2.3 of the Revised Forest Plan (See PC -15). Alternative D proposes adding additional areas to the Backcountry MA; these would be managed in relatively the same way as IRAs. The Preferred Alternative, Alternative E would add roughly 3,600 acres of Backcountry between Ward and Blackwood Creeks (Stanford Rock).

PC 118: The Forest Service should update the roadless area maps.

Response: The Inventoried Roadless Area maps used in the Revised Forest Plan are current. They are the maps contained in the 2001 Roadless Area Conservation Rule (36 CFR 294). Due to ongoing litigation it is outside the scope of this plan revision to alter the published Inventory Roadless Areas that are part of the 2001 Roadless Rule.

Adaptive Management

PC 49: The Forest Service should implement adaptive management and amend the Plan as needed to be consistent with current science and to respond to changing trends in natural resource conditions.

Response: It is Forest Service policy to implement adaptive management. The current Plan has been amended numerous times and we expect the Revised Forest Plan will also be amended in response to changing conditions and new science. Several commenters expressed concerns that we would not be able to change the Forest Plan; however, the Forest Supervisor will be able to amend the Forest Plan as needed, with the exception of decisions such as Wilderness or Wild and Scenic River designation which require higher level approvals.

PC 111: The Forest Service should incorporate the adaptive management programs set forth in the 2001 and 2004 Framework decisions.

Response: The adaptive monitoring program specified in both the 2001 and 2004 Sierra Nevada Forest Plan Amendment Records of Decision is accomplished at the Regional Office level in coordination with the research station. Broadscale monitoring will continue to be accomplished at the regional level even after the forests of the Sierra Nevada have undergone Forest Plan Revision.

The 2001 and 2004 Framework Decisions amended the 1988 LTBMU Land and Resource Management Plan. The Record of Decision for this Forest Plan Revision will put in place a new Forest Plan for the LTBMU, which includes a monitoring plan as Appendix A. The monitoring plan will be adjusted as needed to respond to new information and unanticipated changes in conditions which meets the intent of adaptive management.

Use of Science

PC 159: The Forest Service should always use science in planning even if it is not the most important consideration.

Response: Science is used in all Forest Service planning that involves natural resource management. The National Environmental Policy Act (NEPA) requires a systematic, interdisciplinary approach to ensure integrated application of the natural and social sciences and the environmental design arts in any planning and decision making that affects the human environment (42 U.S.C. 4332(2)(A)).

Alternatives

PC 67: The Forest Service should analyze a reasonable range of alternatives.

PC 69: The Forest Service should include an alternative that takes a more moderate approach to fuel management and restoration.

Sample Comments: *"…the DEIS should have considered an alternative that corresponds to the 2001 Framework decision, which generally allows substantial forest thinning of trees up to 20" dbh*

"…that would institute an active management approach that would result in more active management than Alts. B and C (and A), but would do so in a non-commercial, ecological approach that would focus on actively managing forests, including mature trees, to accomplish ecological goals, but by actively creating habitat structures without commercial logging—i.e., without removing wood commodities (sawtimber or biomass)"

"The alternatives presented in the DEIS fail to meet the requirements of NEPA and NFMA because they only propose activities at the extremes and do not include a more moderate approach to fuel management and restoration."

"The draft plan, to approach a full range of alternatives as called for by NEPA, should have contained an alternative that required less intensive fuel treatments in order to retain many more medium to large diameter trees and a higher degree of canopy cover, to the benefit of wildlife. Some wildlife, such as the California spotted owl, definitely depend on a closed canopy cover."

Response: Chapter 2 of the FEIS describes the alternatives and explains the process used to develop them. Sections 2.3 and 2.4 describe the alternatives that were considered in detail and how they address the issues. Based on the comments received during the comment period we added Alternative E to the alternatives that are considered in detail. Section 2.5 briefly describes the alternatives that were considered but not analyzed in detail along with the rationale for why they were excluded from detailed analysis; Section 2.5 has been updated to include 8 alternatives. We believe that with the alternatives presented that we have analyzed a range of alternatives that meets the requirements of the planning regulations and the CEQ requirements.

PC 70: The Forest Service should include the document "National Forests in the Sierra Nevada: A Conservation Strategy" as an alternative.

Response: Chapter 2, Section 2.5.8 describes the rationale for why this alternative was not considered in detail. This document is regionwide in nature and not as site-specific as the proposed LTBMU Forest Plan. In addition, this document is focused on habitat and species management and does not adequately take into account the other multiple use mandates that are the foundation of Forest Service management.

PC 344: The Forest Service should modify the preferred alternative to allow 15% expansion in ski areas.

Response: The 15% expansion amount is identified in Alternative C. The preferred alternative, Alternative E, includes approximately a 10% expansion in ski areas based on current expected needs for expansion. Recreation expansion has been defined in Section 2.2 of the Revised Forest Plan. Effects from expansion of ski areas have been updated in Chapter 3, Section 3.4.19 - Recreation.

PC 61: The Forest Service should consider combining elements of alternatives.

Response: The Preferred Alternative, Alternative E, was developed in response to comments and combines elements of several alternatives. Alternative E is described in Chapter 2 of the FEIS.

PC 66: The Forest Service should consider an alternative like the 2001 Framework decision that 1) retains large trees; 2) allows for thinning of small to medium size trees; and 3) limits recreational expansion into wildlife habitat.

Response: Please see Section 2.5 of the FEIS, Alternatives Considered but Eliminated from Detailed Study.

PC 71: The Forest Service should explain why an alternative was not considered that recommends wilderness designation for all roadless areas and wild and scenic river recommendations for all eligible rivers

Response: All Inventoried Roadless Areas (IRAs) were evaluated for wilderness potential; this analysis is presented in Appendix C. IRAs were evaluated based on Capability, Availability, and Need, using the process described in Forest Service Handbook 1909.12, Chapter 70. Based on this evaluation, the two IRAs with the highest ratings were included in the alternatives - Dardanelles and Freel/Jobs Peak.

Wild and Scenic River recommendations are based on two determinations: eligibility and suitability, which are defined in Forest Service Handbook 1909.12 Chapter 80. To be eligible, a river must be free-flowing, and must possess one or more "outstandingly remarkable values" (ORVs), as defined in the Handbook. The suitability criteria defined in the Handbook are applied to determine whether an eligible river should be recommended. These criteria include a number of land ownership and management considerations. Thus, not all eligible rivers are suitable and may not be recommended.

See Appendices B and C and Section 2.5 in the FEIS for further discussion.

PC 228: The Forest Service should select an alternative that includes more aggressive forest management than Alternative C.

Sample Comment: *"My only complaint with Alt. C regarding forest management is that it is not aggressive enough. Our forests are in bad shape. They are much, much too crowded and will catastrophically burn if something isn't done soon. We should be spending all available resources on managing our forests. Stand health is much more*

important to the long-term health and economic prosperity of the Tahoe basin than any other factor affecting our forests."

Response: We agree that there is an urgent need to continue reducing hazardous fuels and restore forest health, and our current fuels program was developed in collaboration with all land ownerships and jurisdictions in the Lake Tahoe Basin - the 2007 Lake Tahoe Basin Multi-Jurisdictional Fuel Restoration and Wildfire Prevention Strategy. We have treated close to half the WUI at this time. Alternative B would continue this work at our current pace. The vegetation management parameters in Alternative C represent the most aggressive vegetation management program that we think we can reasonably accomplish.

PC 371: The Forest Service should consider an alternative that separates winter motorized and non-motorized users.

Response: All alternatives provide for separation of winter motorized and non-motorized users on the approximately 48% of NFS lands managed by the LTBMU that are closed to motorized use. Lands open to motorized use are also open to non-motorized use, which means that non-motorized uses are allowed on all NFS lands managed by the LTBMU.

PC 510: I support Alternative A

Sample Comment: "…would best serve the environment by allowing needed active management to reduce fuel loads and promote forest health. These alternatives would also best meet the needs of the community by allowing for continued and expanded recreation access."

"I support fuels management practices."

"…would appreciate if we are allowed to enjoy the forest as we do now as a multiuse area, which includes all current forms of non-motorized and motorized recreation!"

"…neither of these alternatives will impact snowmobiling in the basin".

Response: There were multiple commenters who expressed their support for Alternative A for various reasons ranging from support for fuels management activities to continuing to provide for both motorized and non-motorized recreation opportunities. Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker(s) in arriving at a decision and not for improving the environmental analysis or documentation.

PC 511: I support Alternative B.

Thank you for your support. We have modified Alternative B to reflect many of the comments we received, and believe that Modified Alternative B (FEIS Chapter 2) is an improvement. We believe this alternative provides the best balance of recreation opportunities and natural resource protection and management, and is the best choice overall to maintain or achieve our desired conditions.

PC 512: I support Alternative C.

Sample Comment: *"…it supports the most aggressive forest management."*

"I support alternative C because it would add more parking on the East shore."

"…we believe Alternative C provides the best approach to managing the LTBMU for the users."

Response: There were multiple commenters who expressed their support for Alternative C for various reasons ranging from the more aggressive nature of fuels management to providing more parking along the East Shore. Comments that state a position for or against a specific alternative are appreciated as this gives the Forest Service a sense of the public's feeling and beliefs about a proposed course of action. Such information can only be used by the decision maker(s) in arriving at a decision and not for improving the environmental analysis or documentation.

PC 513: I support Alternative D

Response: Alternative D is the result of a variety of suggestions received during scoping and would provide the lowest level of active management of any of the alternatives. While this approach would benefit some resources, analysis showed that it did not provide the best balance when considering a range of recreation opportunities and management of multiple natural resources. Wilderness designation would eliminate opportunities for mountain biking and snowmobiling in some popular areas. Effective fuels reduction would be very challenging given the tree removal limitations outside the WUI defense zone. This alternative also relies heavily on prescribed fire for vegetation management; analysis revealed that air quality restrictions and fire safety considerations would limit our ability to move towards our desired conditions for forest vegetation.

PC 170: The Forest Service should include an active management, non-commercial alternative.

Response: The majority of treatments proposed in the plan are non-commercial for a variety of reasons. These include limited accessibility to remove woody material(i.e no roads, steep slopes), no product value to the wood being cut and/or removed, and sensitivity of various habitats (e.g. spotted owl or goshawk protected activity centers) that limits treatments to hand only.

The Forest Service is reducing higher than natural fuel loads, meaning that some fuels can be removed while other must be altered in place or burned. Re-introducing the role of fire that has been absent from many forest stands is a primary goal as well. Although some wood is removed in the form of a sale, these treatments are generally not a commercial operation. There are extremely few instances where such material removed from one location can be utilized on barren areas to increase nutrient cycling. We do, however, utilize such materials for dust abatement, mulch, slope stabilization and control of regeneration.

See wildlife comment response to use of coarse woody debris and snags. These features are retained in forest health and hazardous fuels treatments and analyzed for during project development and analysis.

We agree that some trees can be girdled or otherwise killed in place for use as snags by wildlife. This option has been added to forest vegetation S&Gs in the Revised Forest Plan.

PC 499: The Forest Service should consider an alternative that relies more on biomass removal and strategies other than prescribed fire; and should develop markets for chipped wood instead of burning piles which causes air pollution and deposition into Lake Tahoe.

Response: Wood products do not drive the alternatives; rather the desired conditions and principle methods for achieving them are the drivers. As much as feasible, biomass strategies are a part of projects that have the possibility for wood removal. In addition to a biomass emphasis in the forest plan, there are multi-jurisdictional strategies in place to which the LTBMU is a participant; there is a Coordinated Resource Offering Protocol (http://www.crop-usa.com/tahoe/) evaluation in place for the Lake Tahoe Basin; and there is a Master Stewardship Agreement in place between the US Forest Service/LTBMU and Placer County for the removal of biomass.

Conducting research and developing markets for wood products that could be utilized from management treatments on national forest system lands is beyond the scope of this plan. Staff has participated in coordination with researchers and on multi-jurisdictional teams to identify potential sources and outlets for woody materials. The unit has also contributed to a Coordinated Resource Offering Protocol, which is done every 5 years to assist wood purchases in determining likelihood of availability of wood material sources. Complicating the removal of utilizable woody material is the restrictiveness of state regulatory agencies, resulting in either avoiding areas or leaving the material for prescribed burning.

We agree that it is preferable to remove and utilize woody material that in the absence of any market or other use will be burned in piles. Past project treatments have utilized woody material even when the transportation cost of delivering such material exceeded the value of the material at the facility. This was the case when outlets for woody material existed but when they do not exist, it is infeasible to make such deliveries. The proposed biomass-to-energy facility at Cabin Creek landfill in Placer County would provide such an outlet and the LTBMU has a Master Stewardship Agreement in place with the County to allow for biomass utilization from projects on NFS lands. However, the planning of this facility has been contested by individuals and organizations and may end up in court. In a few instances small quantities of wood logs, chip or mulch have been diverted from burning to be used in support of stream and meadow restoration, road decommissioning, hill slope stabilization, and dust abatement.

The LTBMU must comply with air regulations and would not prescribe burn more than is permitted. In addition, the capacity of the unit and other sources of qualified human

resources to conduct prescribed burning would limit the amount burned each burn period. The FEIS assumes that all piles created would be burned, but for reasons mentioned above, this would not actually be the case. Instead, a backlog of piles would persist in project areas until regulatory requirements, the burn plan prescription, and the capacity of the unit to conduct the burn all coincides.

PC 492: The Forest Service should consider an alternative that attempts to establish a fire regime in the Basin comparable to that which occurred prior to large scale fire suppression.

Response: As stated by the commenter, the Revised Forest Plan and FEIS disclose historic fire regime characteristics. The alternative proposed by the commenter is already within the scope of the alternatives being considered. As stated in the desired conditions, acceptable fire effects, fire frequency, and acres of fire can be met in all the action alternatives. However, prescribing acres of managed wildfire, or over-reaching objectives of prescribed fire could prove to be unreasonable given limited opportunities as disclosed in the Fire and Fuels analysis. Further, the current situation in the LTBMU is no longer the same situation that existed when the pre-settlement fire regime was established. Today the LTBMU is a WUI forest, and risk management is the primary concern when managing fire. Further, LTBMU is constrained by a host of regulations and uncertainties related environmental conditions. Alternatives B and E provide the flexibility to make the most progress toward desired conditions using fire when appropriate, and using surrogates when necessary.

PC 223: The Forest Service should include an alternative similar to Alt D that also utilizes high and mixed severity fire to create early and mid-seral habitat outside of the defense zone, and prohibits post-disturbance (e.g., fire, beetle kill, etc.) salvage logging outside of the Defense Zone.

Response: The suggested alternative is so similar to Alternative D that it was not considered in detail. The main difference between what is suggested and Alternative D is the use of high and mixed severity fire. Under current vegetation/fuels conditions we consider use of high severity fire too great of a risk. While we design prescribed fire treatments to generally burn at low severity, sometimes treatments result in patches of mixed or high severity.

Analysis

PC 11: The Forest Service should take into account impacts resulting from BMP failure.

Response: FEIS Section 3.3 lists the assumptions common to all alternatives. For the analysis in the FEIS it was assumed that BMP's would be implemented and that they would be effective under all of the alternatives. This assumption is made because it is impossible to predict when properly designed BMP's will fail.

Implementation monitoring is used to identify any deficiencies in BMPs as soon as they are recognized, and measures are then implemented to correct the deficiencies.

PC 50: The Forest Plan should identify high risk issues.

Response: The issues that were identified through scoping are described in detail in Section 1.10 of the FEIS. The four major issue areas include Watershed Health and Aquatic Ecosystems, Terrestrial Ecosystems, Recreation and Access and Travel Management.

PC 60: The Forest Service should provide more detailed analysis when changing suitable uses.

Sample Comments: *"To the extent the Final Plan reflects "zoning" changes, Standards or "suitable uses" designations that would alter existing management prescriptions, the Forest has not conducted sufficient site-specific analysis."*

"Implementation of any action alternative analyzed in this DEIS that eliminates snowmobile, motorized and mountain bike use is premature without such site-specific analysis."

Response: Suitable Uses for Alternative E are described in the Revised Forest Plan (FEIS, Volume II) in Chapter 2.3 – Management Areas and Suitable Uses and in Table 5 of the Revised Forest Plan. Changes in suitable uses are reflected in the effects analysis. Analysis of suitable uses determinations can be found in the effects analysis in each resource section of Chapter 3 of the FEIS. Impacts due to changes in management area and/or wilderness recommendation can be found in each individual resource section of Chapter 3. As a programmatic document, this FEIS has analyzed the suitable uses to that scale. Analysis specific to land use designations can be found in the Recreation and Access sections of the FEIS (3.4.1 and 3.4.19).

PC 172: The Forest Service should provide an evaluation of how well current plan goals were achieved.

Response: At the beginning of the Forest Plan Revision Process, the LTBMU completed a Comprehensive Evaluation Report (CER) and an Analysis of the Management Situation (AMS) was also prepared in support of Plan revision. The CER and AMS evaluate current conditions and trends in the Forest Plan area that contribute to social, economic, and ecologic sustainability as well as whether or not the desired conditions, objectives, and guidelines are still appropriate. Using this information, the CER then identifies needed changes to the Forest Plan that will better facilitate achieving the revised desired conditions, goals, and objectives. The current CER covers the time period from the implementation of the 1988 LTBMU Forest Plan to the present. In Chapter 3 of the CER, the current conditions and trends (including how well current plan goals were achieved) are discussed for each resource area.

PC 24: The Forest Service should provide rationale for changes in management areas.

Sample Comment: *"Can you explain more about the new land allocations in the plan and how you made the decision to collapse them? Especially the old growth forest emphasis area and how old growth will continue to receive protection?"*

Response: The term land allocation is specific to the Sierra Nevada Forest Plan Amendment (SNFPA); the 1988 LTBMU Forest Plan and the Draft LTBMU Forest Plan use a management area system. The SNFPA land allocations have been incorporated into the Revised Forest Plan in several ways, as described in FEIS Section 2.6.1, in the subsection *The Identification of the Suitable Uses for Each Management Area*.

While the SNFPA amended the 11 Sierra Nevada Forest Plans for several resource areas, the current revision covers all resource areas. Any given project decision needs to consider not only the resources covered in the SNFPA, but a host of others, including special area designations, scenic integrity, and special use permit areas. We believe the most practical way to do this is to include maps (resource overlays) that show the location of resources that require special consideration, and then link the areas on the maps to Desired Conditions, Strategies, Objectives, and Standards and Guidelines. (Note that locations on the maps are shown for planning purposes and generally must be field-verified.) Removing the term "land allocations" does not in itself lessen the protection provided to any given resource. Resource protection is provided through the interworking of the Desired Conditions, Strategies, Objectives, and Standards and Guidelines.

The 1988 Forest Plan included 21 geographic-based management areas (e.g. Fallen Leaf, East Shore Beaches). While we ensure that projects are consistent with this direction, this system has proved less useful over time. Working with 21 management areas plus 10 SNFPA land allocations proved unwieldy and somewhat confusing at times. We found that a system of 4 management areas plus the resource overlays best meets our current business needs. *(see PC 25 for further discussion of the Old Forest Emphasis Areas.)*

PC 57: The Forest Service should address how current practices and other factors have or have not contributed to movement toward or away from Desired Conditions.

Sample Comment: *"The three key topics which relate to Volume 2 are Part 1: Vision, Part 2: Strategy, and Part 3: Design Criteria. What is missing in this formulation is "Assessment". The USFS should address how current practices and other factors have or have not contributed to movement toward or away from Desired Conditions."*

Response: The assessment phase of the revision process culminated with the publication of the Comprehensive Evaluation Report (CER), which is available on our website. The findings and results in the CER were then updated and summarized in Chapter 3 of the FEIS in the Affected Environment sections for each resource area, which describe the current conditions and trends. The effects of the alternatives, including the No Action alternative (Alternative A) are summarized at the end of each Chapter 3 resource section and discussed in terms of how effectively each of the alternatives would maintain or move the resource towards attainment of the desired conditions.

PC 93: The Forest Service should evaluate the potential environmental impacts associated with every aspect of all alternatives that increase the need for maintenance or enforcement to maintain conditions if funding for these additional needs is reduced or eliminated.

Response: We have analyzed reasonably foreseeable effects, and have avoided speculative conclusions, as directed by the NEPA regulations. The analysis is based on a set of assumptions listed in Section 3.3 of the FEIS, which include assumptions about budget. The level of detail in a programmatic EIS such as this one is always less than in an EIS that analyzes specific actions.

PC 171: The Forest Service should explain why there are competing goals/objectives in the Forest Plan. The Forest Service should provide scientific rationale for Forest Plan components

Response: We recognize that it is not possible to make progress towards every Desired Condition on every project. This is explained in the Forest Plan Consistency section of the Plan Introduction. The effects of implementing the plan components are disclosed in Chapter 3 of the FEIS; best available science was used for this analysis and a science review was conducted to ensure science was used appropriately. The report prepared as a result of the science review is available in the project record along with responses to the review comments.

PC 518: The Forest Service should improve its analysis to comply with NEPA

Response: The FEIS has been written to comply with NEPA. Analysis for programmatic plans such as this one is somewhat different than analysis for a specific action; the Revised Forest Plan does not authorize projects or activities. Analysis for programmatic plans is further discussed in Appendix O.

Communication and Collaboration

PC 46: The Forest Service should consider a management strategy similar to the Quincy Library Group, where interest groups come together and compromise for the benefit of all.

Response: The use of collaborative planning (similar to the Quincy Library Group) is becoming more common in project planning in the Forest Service. At the LTBMU we have used collaborative planning in developing the 10 year multi-jurisdictional fuels reduction strategy and have initiated a collaborative effort among winter recreationists in the Mt. Rose corridor. We expect to continue to use this type of planning in those circumstances where there is a great deal of controversy over our management activities.

PC 34: The Forest Service should encourage the use of partnerships and volunteers to achieve management goals

PC 55: The Forest Service should collaborate more with the public and advocacy organizations

Response: Grassroots stewardship is critical to sustainability and promises to become even more critical in the future as financial resources become uncertain. Private dollars, volunteer efforts and leveraging resources through partnerships will be increasingly necessary to achieve a sustainable Lake Tahoe.

The following are a few examples of how grassroots stewardship currently helps the Forest Service achieve sustainability:

1. Volunteers help with conservation education in the local schools or at interpretive sites
2. Tahoe Rim Trail Association and Tahoe Area Mountain Biking Association volunteers help to ensure a trail system that provides a sustainable recreation experience.
3. Tahoe-Tallac Association and the Tahoe Heritage Foundation volunteers contribute to sustainable recreation on the South Shore by providing the volunteer workforce at the Tallac Estates and Valhalla.
4. Desolation Wilderness volunteers help to preserve one of our nation's most popular wilderness areas through trailhead and backcountry naturalist programs, visitor education, wilderness staff support for office and field projects and backcountry trail maintenance and campsite restoration.

PC 28: The Forest Service should communicate better with public and attempt to better understand user's views, and should maintain ongoing communication with the public to update policies.

Response: We strive continuously to improve our communication with the public on proposed actions and new policies. A wealth of information can be accessed on our website at http://www.fs.usda.gov/ltbmu. We also regularly provide news releases to local and regional newspapers, and give radio and television interviews.

Public involvement for the Forest Plan revision is summarized in section 1.9 of the FEIS. Public involvement began in 2004 with an interagency collaborative process called Pathway 2007 and continued with public meetings and workshops in 2008, 2010, and 2012.

PC 33: The Forest Service should collaborate with adjacent forests on a broad array of management issues including wildlife corridors and climate change.

Sample Comment: *"…many natural resource issues must be addressed across administrative boundaries, including protecting and re-connecting habitat for wide ranging species, ensuring that range-wide climate adaptation efforts are facilitated, and*

ensuring that natural processes such as wildfire are managed consistently across the range."

Response: The Forest Service is beginning to incorporate more landscape scale planning in response to a broad range of issues. We have collaborated with adjacent forests during this revision process and expect to continue, especially on these issues in the near future. It is worth noting that, due to the geographic nature of the Lake Tahoe Basin, most of the boundary is in remote, high elevation areas.

PC 35: The Forest Service should collaborate with TRPA and the state and local agencies to reduce environmental impacts in the Tahoe Basin.

Response: The Forest Service coordinates with TRPA and state and local agencies on a regular basis. The Environmental Improvement Program (EIP) is one of many examples. Several commenters suggested that collaboration could be used to resolve a number of issues, such as parking and congestion at popular recreation sites, as well as environmental impacts. While we understand the frustration, Forest Plan Revision does not address site-specific issues, but we will consider these comments as we move forward.

PC 516: The Forest Service should have held additional public meetings outside the Tahoe Basin for the release of the DEIS and Draft Plan.

Response: In addition to the four meetings held within the Lake Tahoe Basin, the LTBMU also held a webinar which included the same presentations that were given at the public meetings, and provided an opportunity for the audience to phone or email questions which were answered live during the webinar. The webinar presentations were then made available to the public on the LTBMU website. The webinar format was used to reach as many people as possible while minimizing energy consumption and costs.

Access and Travel Management

PC 476: The Forest Service should clarify their ATM planning process.

Response: Refer to the Access and Travel Management strategy in the Revised Forest Plan. The ATM planning process involves a strategic plan where the basin was divided into planning areas which subsequently became a project area for NEPA analysis. Through the NEPA process each ATM area is developed into a proposed action. Collaborative processes are used to involve agencies, stakeholders, and the public for the development of alternatives. After analysis and public input are complete the Forest Service selects an alternative and implements the ATM in that area.

PC 472: The Forest Service should complete subparts A and B of the Travel Management process.

Response: The LTBMU Travel Analysis, which identifies the minimum road system, was completed in 2011 and the LTBMU MVUM was established in 2010. These two processes complete subparts A and B of the Travel Management process.

Roads and Trails

PC 26: The Forest Service should maintain current public uses (not prohibit any existing uses) and should not close roads and trails.

Response: Alternatives A, B and E (the preferred alternative) do not include closures.

PC 489: The Forest Service should maintain a transportation system that is adequate to manage the forest.

Response: The LTBMU Travel Analysis Process confirmed that the ATM process has identified the minimum road system necessary to manage the forest. Adjustments to the road and trail system are made on a project basis as needs are identified, to mitigate resource concerns or provide access for specific management needs.

PC 190: The Forest Service should evaluate the need for roads that may detrimentally impact streams or wildlife and minimize impacts.

PC 409: The Forest Service should consider the effects of more trails on natural resources.

PC 408: The Forest Service should ban mountain bikes in natural areas.

Sample Comments: *"Mountain biking accelerates erosion, creates V-shaped ruts, kills small animals and plants on and next to the trail, drives wildlife and other trail users out of the area, and, worst of all, teaches kids that the rough treatment of nature is okay (it's NOT!). What's good about THAT?"*

Response: Refer to the Access and Travel Management strategy in the Revised Forest Plan. See discussion of ATM Program Strategy- the LTBMU developed a Water Quality Risk Analysis Process in 1998 as part of the Access and Travel Management Plan (ATM), and has been continuously evaluating roads for potential to adversely affect water quality. Approximately 180 miles of roads have received BMP upgrades in addition to the 106 miles of roads that have been decommissioned to protect water quality. Roads have been relocated away from surface water and riparian zones. In addition, through monitoring and evaluation BMPs have been modernized to increase maintenance frequency and improve effectiveness. By increasing the maintenance frequency the road system costs less to maintain and receives a water quality benefit from reduced sedimentation from reduced disturbance. The BMPs themselves have evolved to create a road system that mimics natural hydrology patterns by reducing stormwater concentration and maximizes natural drainage within the landscape.

Effects of trail construction and use on natural resources are analyzed in Chapter 3 of the FEIS. While mountain bike use results in some degradation of resources and affects some wildlife species, the consequences are not serious enough to warrant banning this popular activity.

PC 468: The Forest Service should clearly state the miles of roads and trails that will be added under each alternative.

Response: None of the alternatives propose building any new roads; increases shown in FEIS Table 2-1 reflect existing gated roads that could be opened to public use. Approximately 30 miles of hiking/equestrian trails and approximately 10 miles of mechanized trails would be added to the trail system. Of this, approximately 30 of those miles would come from currently unauthorized trails that would be upgraded and added to the system. No additional miles of OHV trails would be added.

PC 7: The Forest Service should maintain open status of areas currently open to mechanized recreation.

PC 23: The Forest Service should add more detail to EIS on effects to mountain biking and OSV use.

Response: Effects to mountain biking and OSV will vary by alternative. Alternatives A, B, and E would provide the maximum opportunities for mountain biking and OSV and would maintain currently open areas. Alternatives C and D would reduce opportunities should Congress choose to designate Wilderness.

PC 362: The Forest Service should increase the roads, trails and areas open to motorized use.

PC 479: The Forest Service should increase roads and trails.

Response: Alternative D would open the most roads to motorized use; Alternative C would open the most trails to motorized use. Alternative D would provide the least amount of trails for motorized use. Alternatives A, B, and E maintain existing levels of motorized road and trail use.

All alternatives propose adoption and improvement to standards of up to 30 miles of non-motorized trails. No programmatic expansion of the road system is proposed in any alternative; the LTBMU has decommissioned many miles of roads to address water quality concerns and there is no identified need to expand the road system. The Forest Service may consider changes to the road and trail system in future project-specific decisions.

PC 469: The Forest Service should disclose how additional roads and trails will be managed to meet TMDL targets.

Sample Comments: "*Is the management (including implementation and maintenance of BMPs and/or design measures) and de-commissioning or obliteration of such roads considered a part of the ATM program? If so, this should be explicitly stated and sufficient program resources should be allocated to achieve the Total Maximum Daily Load (TMDL) and Land Management Plan (Forest Plan) objectives…"*

"…the discussion in Sec. 3.4.1.3, Environmental Consequences of Vegetation & Fuels Management (p. 3- 20) does not adequately address the potential impacts of new, expanded and more intensively used roads as a result of fuels reduction projects, particularly under Alternative C which includes a greater emphasis on mechanical thinning."

Response: The USFS will continue to utilize best management practices related to road and trails, as defined in the USFS National and Regional Water Quality Management Handbooks (cite the new handbooks here) to ensure progress towards achieving TMDL targets for Upland Sources is achieved. This includes BMPs appropriate for existing road/trails, new road and trails, and decommissioning/obliterating roads and trails. The USFS will report accomplishments through the Upland TMDL tracking and reporting program, when development of the program is completed, and implementation is initiated by the TMDL regulatory agencies (NDEP, LRWQCB, and TRPA.

Environmental consequences of roads are discussed in the water quality, soils, and wildlife sections of the FEIS (3.4.24, 3.4.22 and 3.4.23).

PC 391: The Forest Service should designate some trails for hiking only or hiking and horses only.

Response: While our policy is generally to provide multiple use trails, Wilderness Areas and the Pacific Crest Trail provide non-motorized and non-mechanized trail opportunities (hikers and horses only). Alternatives C and D would increase those opportunities, while Alternatives A, B, and E would maintain the current opportunities.

PC 393: The Forest Service should consider innovative trail system designs such as a "hub and spoke" system to connect popular areas, and stacked loops.

Sample Comments: "*It would be nice to see additional multi-use trail connections from population centers with access points into the forests. A recent example is the Van Sickle Trail which now connects the population base of Stateline and South Lake Tahoe up to the Rim Trail. Additionally I would like to see more single track trails replace old vehicular roads that are no longer being used such as the Star Lake Connector Trail built in 2011."*

Response: These practices have been and will continue to be implemented during project planning under all of the alternatives, but are beyond the scope of this analysis.

PC 3: The Forest Service should expand trails and improve trailheads.

PC 412: The Forest Service should commit more resources to bicycle recreation.

PC 397: The Forest Service should consider the growth of mountain biking in the past 3 decades and the status of Tahoe as an international destination.

PC 406: The Forest Service should engage in a comprehensive non-motorized trail planning effort.

Response: Over generations the LTBMU has collaborated with many trail users to establish the current trail system. Among those user groups are the Pacific Crest Trail Association, Tahoe Rim Trail Association, International Mountain Bike Association, Tahoe Area Mountain Bike Association, League to Save Lake Tahoe, Tahoe Area Sierra Club, Back Country Horsemen, and the Blue Ribbon Coalition. The emergent trail system provides for recreation opportunities that reflect the demographics of the user groups in the Tahoe region.

Since 1998 the Lake Tahoe Restoration Act has provided a conduit for which funding (SNPLMA since 2004) has been awarded to improve the trail system. The result has been the adoption or decommissioning of unauthorized trails and the establishment of a whole trail system planned to compliment the natural environment, minimize trail maintenance needs, and meet public recreation needs. Future developments to the shared use trail system will follow the strategies in the Revised Forest Plan.

PC 396: The Forest Service should allow an all dirt mountain bike trail that circumnavigates the Lake.

Response: Such a proposal would require a large site-specific planning effort, but could potentially be implemented in the future.

Mountain bike use is compatible in most management areas on NFS lands except within wilderness areas and in certain natural areas such as the Pacific Crest Trail.

PC 394: The Forest Service should designate some trails for human-powered activities only (no equestrian use).

Response: The Forest Service is a multiple use agency and has a policy of managing for multiple uses on trails.

PC 32: The Forest Service should prescribe management direction for the PCT that will ensure management meets the requirements of the National Trails System Act and other relevant direction.

Response: Specific standards and guidelines have been included in the plan to ensure that the PCT is managed to meet requirements of the National Trails System Act.

PC 310: The Forest Service should limit use of mountain bikes and off road vehicles to minimize environmental damage.

Response: Motor Vehicles are limited to the routes shown in the LTBMU Motor Vehicle Use Map 2010. Mountain bikes are limited to areas outside of wilderness and are not allowed on the Pacific Crest Trail.

PC 354: The Forest Service should recognize the need to regulate ORV use to prevent damage to natural resources and historic sites.

Response: ORV use is regulated by 36 CFR subpart B sections 212.50 through 212.57, which is enforced through the LTBMU Motor Vehicle Use Map, 2010 (MVUM). Subpart B requires the establishment of the MVUM which contrary to the former regulatory framework established a "closed unless designated open" rule for motorized use. The updated regulations restrict motorized users to designated trails, roads, and open areas providing protection of resources.

PC 356: The Forest Service should decrease the roads and trails available for ORV use.

PC 372: The Forest Service should not provide any additional motorized trails or roads.

PC 378: The Forest Service should not increase areas open to motorized off road vehicles.

PC 379: The Forest Service should ban OHV use in the Basin.

Response: While we recognize that some people prefer not to share trails with motorized vehicles, OHV use is recognized as a valid recreational use. Off Highway Vehicle (OHV) use is limited to routes and areas shown on the LTBMU Motor Vehicle Use Map (2010). OHV use off designated roads or trails is prohibited. OHV use is managed and the routes are maintained to protect natural resources. The miles of available routes vary by alternatives, as described in Chapter 2 and Table 2-1 of the FEIS.

PC 377: The Forest Service should eliminate unneeded roads.

PC 400: The Forest Service should do more road to trail conversions.

Response: The LTBMU Travel Analysis Process confirmed that the ATM process has identified the minimum road system necessary to manage the forest. In future project specific analysis roads identified would be considered for elimination or conversion to trails. Since 1998, the LTBMU has identified and eliminated 108 miles of unneeded roads and few unneeded roads exist.

PC 425: The Forest Service should avoid building roads in IRAs.

Response: The final rule of 36 CFR Part 294 prohibits road building within IRAs.

PC 478: The Forest Service should not reconstruct roads to accommodate passenger vehicles.

PC 514: The Forest Service should not convert OHV roads for use by passenger vehicles.

Response: Roads are managed and maintained to provide for access for recreation and management. An increase in roads open to passenger vehicles is proposed in Alternative C, recognizing that many visitors come to Lake Tahoe in passenger vehicles and this is their preferred means of accessing the National Forest, either by choice or because of physical limitations. Alternative D would decrease the mileage, while Alternatives A, B, and E would maintain existing levels of passenger vehicle roads.

PC 2: The Forest Service should expand road system.

Response: LTBMU Travel Analysis 2011 identifies the needed road system for management and recreation access to the forest. Any expansion would be done at the project level and not through this Forest Plan Revision.

PC 477: The Forest Service should clarify their road maintenance strategies.

Response: Road maintenance strategies are described in FSH 7709.59 Road System Operation and Maintenance Handbook.

It is necessary to perform condition surveys and maintain approximately 20% of the road system per year to keep the road system in a condition that is protective of water quality and open for administrative and in many cases public access. The consequences of accumulating deferred maintenance upon the road system is that road may not be available for other projects such as fuel reduction and ecologic restoration. Strategies in the Forest Plan include managing the road system to achieve environmental goals and prioritize maintenance of the road system relative to public benefit and ability to eliminate deferred maintenance.

Parking

PC 4: The Forest Service should expand parking.

PC 138: The Forest Service should maintain current parking areas.

PC 473: The Forest Service should evaluate how much parking is needed and the size of parking areas.

Response: Expanded parking is evaluated in Alternative C, and small increases in parking are included in Alternatives B and E. The demand for increased parking access must be considered in the light of construction and maintenance costs and potential impacts to the natural setting. The Forest Service will conduct project specific analysis to determine parking needs prior to implementing changes.

PC 36: The Forest Service should improve winter parking.

Response: Development of winter parking is identified in the strategies of the Revised Forest Plan. There are many areas that are not accessible even after snow removal has been completed. Many county snow removal and winter parking ordinances do not allow for roadside parking when snow is present, which has limited many winter dispersed recreation opportunities such as backcountry skiing, snowshoeing, and snowmobiling.

PC 509: The Forest Service should continue to allow unmanaged parking.

Response: All alternatives would allow for unmanaged parking to continue in areas where use is compatible with the setting. The intent of shifting to managed parking is to address impacts in areas that receive heavy use.

PC 467: The Forest Service should wait until transit is improved before decreasing parking.

Response: During project specific planning the Forest Service would define how to maintain access to the forest prior to eliminating parking, not as a part of this Forest Plan Revision.

PC 337: The Forest Service should provide more access points (trailheads) to spread out people and impacts.

Response: Trailheads would stay relatively the same under alternatives A, B, and E, increase in C and decrease in D.

PC 466: The Forest Service should centralize parking and implement a shuttle system to access recreation sites.

Response: The use of transit is promoted in all alternatives. Transit requires the balance of convenience and cost of transit to be more favorable than the private automobile for it to become efficient and effective. Even in the best scenarios transit does not function without subsidies. Ridership for transit may be increased with incentives to use transit and disincentives to use the private automobile. Examples that could be expanded at Lake Tahoe include fee parking (which is often used to subsidize transit), combined entrance/transit fees, timely service, sheltered transit stops, decreased parking, and connected trail systems. Additional transit service must be strategically implemented along with monitoring. Goals for transit include reduce congestion, improve safety, reduce roadside parking, and meet ridership goals.

Use of centralized parking and transit may be feasible at developed recreation sites where demand for access is great and needs for private automobile are low. For example, centralized parking and transit has proven to be very effective within the urban core to access ski resorts on NFS lands. In any event, transit and parking are interrelated and both must be considered when planning for access to developed recreation sites.

PC 470: The Forest Service should explain how unmanaged roadside parking would be eliminated and controlled.

Response: Management for roadside parking would vary depending upon the area and jurisdiction. Roadside parking along highways is generally the jurisdiction of the department of transportation managing the roadway. Along forest roads the jurisdiction is the LTBMU. Strategies for management of roadside parking would be defined in project level analysis. See response to PC 138 for comparison of relative amounts of parking by alternative.

PC 407: The Forest Service should provide public transit at trailheads.

Response: All alternatives would allow for transit opportunities to develop in partnership with other agencies.

Air Quality

PC 194: The Forest Service should address the contributions of OSV use to greenhouse gases.

PC 351: The Forest Service should consider the average pollutant load contributed by OSVs.

Response: The FEIS Air Quality section (3.4.2) has been updated to include an analysis of the effects of OSV use to air quality.

PC 196: The Forest Service should improve the air quality analysis.

Sample Comments: *"Given the nature of the comparison, it is appropriate to use identical units in the figures. However, the draft EIS uses tons x 10,000 for the vertical axis on two figures and tons x 1,000 on one figure."*

Response: Figure 3-21 uses tons x 1,000 because at the scale of tons x 10,000 it would be impossible to show the difference between the alternatives.

PC 485: The Forest Service should include measures to reduce or control emissions.

Response: The Forest Service has incorporated numerous measures to reduce emissions, including purchasing hybrid vehicles and requiring special use permittees to use 4-stroke engines on snowmobiles. These measures, however, are outside of the scope of this Forest Plan Revision.

Aquatic Wildlife Habitat and Species

PC 56: The Forest Service should expand Lahontan cutthroat trout populations in Lake Tahoe and its tributaries as described in both the USFWS 2003 Short Term Action Plan and 1995 Recovery Plan.

Response: All alternatives support recovery efforts for Lahontan cutthroat trout (LCT) as directed by the Endangered Species Act. Specifically all alternatives support the continued recovery efforts in the headwaters of the Upper Truckee River (10 miles), Fallen Leaf Lake, and initiate recovery of an additional two subpopulations (see LCT objectives in the Revised Forest Plan).

The Lahontan Cutthroat Trout Recovery Plan (1995) identified the Western Lahontan Basin (comprised of the Truckee, Walker, and Carson River basins) as one of three distinct population segments (DPS) of LCT. Several of the lacustrine populations within the Western DPS (Lake Tahoe, Pyramid Lake, Independence Lake, and Walker Lake) were identified by the LCT Recovery Plan as potentially important to the recovery of the species. In 1999, Recovery Implementation Teams (RIT) for the Truckee and Walker River basins were formed to develop action plans (as identified in the Recovery Plan) to establish recovery implementation strategies for LCT. These teams, comprised of representatives from Tribal, Federal, and State agencies, completed their action plans in 2003. In their respective basins, the action plans identified conservation and restoration measures to further LCT recovery while improving recreational fishing opportunities for this native trout. Although a Tahoe Basin RIT was not formed at the same time as the other RIT teams, recent planning efforts conducted within the Tahoe basin (Pathway 2007) have shown an enhanced public interest in the restoration of native species. A Tahoe Basin RIT was needed for the development and implementation of this process.

In April 2007, the Tahoe Basin Recovery Implementation Team (TBRIT) formed as part of the ongoing restoration efforts and in response to the growing interest for native species restoration. The TBRIT is comprised of representatives from the U.S. Forest Service-LTBMU, Tahoe Regional Planning Agency, U.S. Fish and Wildlife Service, California Tahoe Conservancy, Nevada Department of Wildlife, Washoe Tribe, and California Department of Fish and Wildlife. This team is developing an action plan to identify opportunities to recover and restore lacustrine LCT populations within the basin based on the most complete biological, geographical, and hydrological information available for the Tahoe basin. The action plan will assist team members in identifying and prioritizing actions for recovery of LCT as well as determining the role of LCT in the management of the recreational fisheries in the basin. Additionally, the action plan will describe a long-term strategy for LCT recovery and fishery restoration.

PC 277: The Forest Service should prevent introduction of new AIS.

PC 140: The Forest Service should use education, monitoring, and incentives to help control aquatic invasive species.

The Forest Service is a member of the Lake Tahoe Aquatic Invasive Coordination Committee and participates on AIS Working Groups for aquatic weeds, non-motorized

boat control/prevention, and warm water fish. The LTBMU has one of the strongest and most comprehensive AIS programs in Region 5 (and possibly in the nation) and we are working with the many partner agencies and public groups to control, prevent, and treat AIS. Additionally, specific management direction that is compatible with the goals of the coordinated effort mentioned above is incorporated into the Revised Forest Plan in the form of Desired Conditions, Strategies, and Standard and Guidelines.

Alternative A only includes strategies for management of terrestrial invasive plant species. Alternatives B, C, D, and E include strategies to prevent new infestations and collaborative strategies to control or eradicate known populations. Alternative D differs in that it only includes strategies that limit management of AIS to high priority species.

Alternatives B and C put forth a revised set of desired conditions, objectives, and Standards and Guidelines that are based on current biological resource needs and anticipated future needs. These Alternatives set a framework for AIS management (prevention, control, eradication and interagency collaboration) to guard against wide spread ecological, social and economic impacts.

The purpose of the Lake Tahoe Region AIS Management Plan (where USFS is a partner) is to facilitate coordination of regional, state, and federal programs and to prioritize and guide implementation of AIS prevention, monitoring, control, education, and research actions in the Lake Tahoe region. This plan is helping to coordinate and set timelines for actions to preserve and protect the environmental, economic and human health in the Lake Tahoe Region.

PC 199: Aquatic and terrestrial invasive species should be aggressively exterminated. All boats should be checked.

Response: Mandatory watercraft inspections are in place to stop aquatic invasive species, such as quagga mussels, before they enter the water. All boats, including brand new boats are required to have an inspection prior to launching into Lake Tahoe, Fallen Leaf Lake or Echo Lake. The USFS and AIS partners recognize that watercrafts are the largest source for spreading AIS into new waterways. Inspections are an essential part of preventing this inadvertent transport of alien species into the pristine waters of Lake Tahoe.

PC 209: The Forest Service should collaborate with other entities on invasive species management.

Response: The Forest Service is a member of the Lake Tahoe Aquatic Invasive Coordination Committee and participates on AIS Working Groups for aquatic weeds, non-motorized boat control/prevention, and warm water fish. The LTBMU has one of the strongest and most comprehensive AIS programs in Region 5 (maybe in the Nation) and we are working with the many partner agencies and public groups to control, prevent, and treat AIS.

The Forest Service also cooperates with the multi-agency Lake Tahoe Basin Weed Coordinating Group Program. Strategies include prioritizing invasive plant species and

infestations, placing highest priority on new species and new, small infestations. Risk to NFS resources and feasibility of control are among the prioritization factors. Priorities are then reassessed based on new information.

Additionally, specific management direction that is compatible with the goals of the coordinated efforts mentioned above is incorporated into the Revised Forest Plan in the form of Desired Conditions, Strategies, and Standard and Guidelines.

PC 236: The Forest Service should consider conflicts between humans and animals.

Sample Comment: "ALL of the wildlife in the Tahoe basin will be adversely affected leading to ever-increasing human-animal conflicts, already a problem! I feel this is perhaps one of the most important considerations of all"

Response: We recognize that conflicts between humans and animals are inevitable. We have included specific management direction for some species, including bears and Threatened, Endangered, Sensitive, Candidate, and Proposed species. In addition, we have included management direction to protect, enhance, and restore all habitat types.

PC 301: The Forest Service should allow beavers to maintain their dams and not remove them.

Response: The USFS manages habitat rather than species. The USFS, however, generally does not manage beaver dams. The USFS considers the presence of beavers a part of the natural environment. Although their presence is somewhat controversial, pending location, in most cases they create habitat that is beneficial to riparian and aquatic species and aid in trapping downstream movement of sediment and nutrients. However, in some cases, dam locations are causing a threat to natural resources or structures. In these situations, some type of management action is required, which sometimes entails the removal of the dam. Prior to removal, all options are considered, including but not limited to, installing flow devices to alleviate flooding and/or wrapping vegetation.

PC 147: The Forest Service should protect habitat values in riparian areas and should not allow recreationists to degrade them.

Response: The USFS manages land for multiple uses and also has the obligation of protecting the NFS lands for future generation. The USFS also recognizes that part of the recreational experience is the enjoyment of the unique natural environment, and the Revised Forest Plan includes management direction specific to protection of riparian habitats.

Botany

PC 438: The Forest Service should require, not just encourage the use of certified weed-free hay and straw.

Response: Use of certified weed-free hay and straw has been addressed in the FEIS and Forest Plan. The DEIS guideline was developed when neither CA nor NV had weed-free

certification programs. Now both have programs, so the guideline has been changed to reflect phasing in of state certification programs.

PC 439: If the Forest Service plans to use herbicides to control vegetation in early seral habitat, we should say so and should analyze effects.

Response: The Forest Service has analyzed the effects of herbicide use in a programmatic EA; this decision will remain in place under the new Plan and herbicide use will be consistent with the EA decision. The LTBMU will continue to use an integrated invasive species management approach that evaluates all available control methods, including biological, cultural, mechanical/physical, and chemical techniques, as well as addresses potential adverse effects to native species, human health, ecosystem processes, or other NFS resources. The effects of site-specific treatment methods would be conducted as part of the project planning process.

PC 330: The Forest Service should evaluate motorized vehicle use, including snowmobiles, in areas known to have plants and animals that are threatened or listed species such as Lahontan cutthroat trout, pine marten, pika, and white bark pine.

Response: The effects of OHV use on listed plants are addressed in the FEIS. OHV use is restricted to an established trail system and is unlikely to further degrade these habitats. OSV are unlikely to affect listed plants because occurrences are covered by snow during use season. Specific to whitebark pine, in its 12-month finding on whitebark pine, USFWS did not consider OSV use to be a threat contributing to considerations for listing under ESA. OSVs are not likely to affect whitebark pine directly or indirectly: a) individuals are not likely to be trampled or damaged to the point of affecting reproduction; b) habitat is not likely to be degraded as it is covered by snow during use season and OSV use is not allowed during season of seedling establishment.

PC 426: The Forest Service should clarify Plan direction for whitebark pine and species refuge areas in general.

Response: The direction for whitebark pine has been addressed in FEIS. We have added whitebark pine specific desired conditions, objectives, and design criteria. The resource overlay section in Part 2 of the Plan now includes more details about Species Refuge Areas. These areas are intended to identify the best and/or critical habitat for identified special status species. Species Refuge Area maps (FEIS Maps 11, 13 and 14) will be continuously updated as habitat identification changes. For example, new spotted owl and goshawk PACs were added between the DEIS and FEIS and are reflected on the FEIS map (number 11).

Climate Change

PC 40: Creating resiliency should be the highest management priority due to adverse effects of extended periods of higher than normal temperatures.

Response: The Forest Plan Introduction states: “Natural resource management on the LTBMU is focused on restoring watershed and forest health and resiliency, fire and fuels

management, providing ecosystem conditions that support native plant and animal communities, and protecting special status plant and animal species."

The Planning for Sustainability section has been updated to further explain adaptation that will lead to resilience in the face of a changing climate: "Ecosystems will be managed for resiliency to prepare for uncertain future outcomes with approaches that support adaptation to changing future conditions." The Plan recognizes that: "Adaptation strategies increase the resilience of ecosystems and resources to climate change impacts."

The Plan is not hierarchal in nature – management actions are not prioritized, however resiliency is a theme throughout the Plan: *Hydrologic and Geomorphic Processes section* focuses on watershed resilience; *forest vegetation, fuels, and fire management* focuses on forest resilience to fire addressed through desired conditions and strategies: "Vegetation management activities adhere to ecologically-based management strategies and are integrated, ultimately to restore or maintain forest resiliency. For example, forest vegetation treatments around communities (thinning that alters density, structure, and species composition) to restore forest resilience to wildfire also meet the goals of reducing forest stand susceptibility to bark beetle-caused tree mortality."; *Forest Vegetation and Fuels management objectives* recognize that "The amounts of acres by treatment and forest type represent the first small steps in a long-term process aimed at achieving forest restoration goals. Given the focus of current program of work in the WUI, objectives related to these treatments will generally occur in the first 10 years of plan implementation and treatments related to restoring forest type structure, composition, and resiliency will occur in the latter 10 years of plan implementation." *Aquatic habitat strategy*: "Use historical sedimentation regimes as a guide for ecosystem resiliency and/or vulnerability."

In addition, the FEIS analyzes adaptation actions related to resiliency in Section 3.4.7 – Climate Change.

PC 48: The Plan should include more adaptive management strategies for climate change. The Plan should emphasize the full adaptive management cycle by acting on the results of monitoring.

PC 108: The Forest Service should fully integrate climate concerns in the adaptive management framework, with explicit performance measures.

Response: Appendix A of the FEIS is the Monitoring and Evaluation Plan. The objective of the monitoring is to act on the results of the monitoring: "Periodic evaluations summarizing the monitoring results will be reviewed by the Forest Supervisor and other managers to determine if any changes are needed in management actions or plan guidance. This monitoring plan is intended to inform resource management on the unit, by testing relevant assumptions, tracking relevant changes, and measuring management effectiveness and progress toward achieving or maintaining desired conditions or objectives."

Measurements of the desired conditions are an indirect measure for our management strategies for climate change. We are managing for climate change currently with 6 adaptation or mitigation management strategies, which were included in the FEIS and

have been added into the Plan as well under Planning for Sustainability. Our Forest Plan monitoring plan has monitoring associated with desired conditions linked to each of these 6 management strategies (See FEIS Section 3.4.7 – Climate Change for effects to each of these strategies): (1) building adaptive capacity of ecosystems through ecological restoration, (2) enhancing watershed health, (3) sequestering forest carbon, (4) reducing existing stresses, (5) sustainable operations, and (6) fostering science-management partnerships and public education, thus allowing adaptive management. In addition, two of the monitoring measures in habitat and species diversity are specifically looking at changes in climate and the influence of those on wetland trends and one is specifically looking at changes in stream temperature. This combination of indirect and direct Forest Plan monitoring provides the LTBMU with the ability to manage adaptively for climate change.

In addition, the LTBMU will continue to manage for climate change based on national policies and guidance. The plan notes under the Planning for Sustainability section: "The Forest Service is developing national policy for addressing the uncertainties associated with management in the face of a changing climate. The LTBMU climate change assessment and strategy will be updated as additional guidance is provided by the agency."

The FEIS Section 3.4.7 – Climate Change has been updated to summarize the current framework that the Forest Service is following as an agency to address climate change. Specific to this comment, the FS CC scorecard is addressing:

- Identify critical research questions guiding adaptive management: Element 7 adaptation activities
- Prioritize Science Needs: Element 4 Science and Management and Element 5 External Partnerships
- Science-Management Partnerships: Element 4 Science and Management and Element 5 External Partnerships

PC 83: The Forest Service should use the term climate warming instead of climate change.

Response: Appendix D and section 3.4.7 of the FEIS discuss the expected climatic changes. These changes include more than just an increase in temperature and therefore the term climate change is more appropriate than climate warming.

PC 148: Analysis of the effects of global warming should be included in any resource management plans and should be included in assumptions in FEIS.

Response: The FEIS section 3.3 Assumptions Common to All Alternatives, includes assumption: "Climate Change –Assumptions regarding climate change are described in detail in Appendix D – Climate Change." Future resource management plans incorporation of climate change assumptions will be based on regional and national direction/guidance.

PC 149: The Forest Service should specify that climate change is not wholly natural.

Response: Language was changed in the FEIS (Section 3.4.7 – Climate Change (Reducing Existing Stresses) to "climate change" rather than "natural climatic variability." It is outside of the scope of this document to identify why climate change is occurring, however section 3.4.7 does recognize that "Healthy forests are directly linked to sustainable consumption," and that the Forest Service is focused on reducing its environmental footprint.

PC 153: The Forest Service should analyze the effects of multiple climate change scenarios.

Response: The Forest Service analyzed the effects of multiple climate change scenarios and presents these in Appendix D (Volume III) of the FEIS. Section D3 in Appendix D under future predictions summarizes two Global Climate Models x 2 emission scenarios for statewide models, and the local models summarized are based on 2 emission scenarios (IPCC A2 and B1).

PC 151: The Forest Service should conduct its own Forest-level vulnerability assessment for the Tahoe Basin and use it to prescribe management to mitigate effects of climate change.

PC 152: The Forest Service should analyze the effects of climate change on species, including inter-species interactions, and should prescribe adaptation strategies to mitigate potential effects.

PC 156: The Forest Service should follow up vulnerability assessments with analysis of key vulnerabilities for specific species and habitats and recommend a course of action.

Response: The FEIS Section 3.4.7 – Climate Change has been updated to summarize the current framework that the Forest Service is following as an agency to address climate change.

The LTBMU is currently following national and regional guidelines related to climate change vulnerability assessments. Element 6 of the National Forest Service Climate Change Scorecard is: Assessing Vulnerability (http://www.fs.fed.us/climatechange/advisor/scorecard/scorecard-guidance-08-2011.pdf). Currently assessments are being conducted at the regional level. The regional office is working with partners to conduct a vulnerability assessment and develop an adaptation strategy for NFS lands in the Sierra Nevada Range of California. The Climate Adaptation Project is being led by EcoAdapt. The goal of the Climate Adaptation Project for the Sierra Nevada is to develop a large-scale vulnerability assessment and associated adaptation strategies for focal resources of the Sierra Nevada. The primary objectives of the project are: (1) assess the vulnerability of a suite of focal resources to climate change; (2) use spatial analysis and expert input to prioritize conservation areas and/or actions; and (3) identify implementable management responses to climate change in the Sierra Nevada. Once this information becomes available it will be incorporated into LTBMU management. While the LTBMU will not be conducting individual vulnerability assessments at this time, we do understand the vulnerability of some of the local

resources based on the EIP program, which had public involvement, and the Sierra Nevada Framework.

We have added climate change strategies to the Revised Forest Plan that identify how vulnerability assessments will be incorporated into management:

- A vulnerability assessment will be completed at the Regional Level for the Sierra Nevada. The LTBMU will collaborate on local and regional vulnerability assessments.
- Vulnerability assessments related to climate change will be incorporated into management on the LTBMU as information is synthesized. Adaptation activities recommended for vulnerable resources will be considered and prioritized based on funding.
- Consider restoration of species and/or habitat identified as vulnerable to climate change during project planning.
- Species restoration should be considered during habitat restoration, especially for vulnerable resources.

PC 197: The Forest Service should include more than two strategies for responding to climate change.

Response: *We have added climate change strategies to the Revised Forest Plan that identify how new information related to climate change will be incorporated into management:*

- Collaborate on local and regional vulnerability assessments. Participate in a Regional vulnerability assessment for the Sierra Nevada.
- Incorporate vulnerability assessments related to climate change into management on the LTBMU as information is synthesized. Consider and prioritize adaptation activities recommended for vulnerable resources based on funding.
- Consider restoration of species and/or habitat identified as vulnerable to climate change during project planning.
- Consider restoration of individual species during habitat restoration, especially for vulnerable resources.
- Minimize management impacts to species that are vulnerable to climate change. Reduce stress (e.g. human activities, invasive species) related to management in order to reduce the additive effects of non-climate stress.
- Incorporate adaptation actions into management to increase resiliency and adaptive capacity of vulnerable resources.

PC 267: The Forest Service should address global biodiversity loss.

Response: We cannot address global biodiversity loss at the Forest level; however we can and do address local biodiversity. Currently we have holistic approach to managing for diversity, with a focus on management of TESPC species. The protective measures we have proposed (through desired conditions and strategies) are "intended to contribute

towards the conservation of our species" (which would mean biodiversity at the Plan level):

- Desired Conditions specifically mention diversity: Hydrologic and geomorphic processes: habitat diversity); Forest Vegetation, Fuels, and Fire Management: (diversity understory; Jeffrey pine), (diversity in Aspen), (plant and animal diversity aspen), (veg diversity); and (species diversity meadows)
- In addition to the DC that specifically calls out diversity, there are many DCs in Habitat and Species Diversity which all move towards managing for biodiversity and multiple strategies found in Conservation of Habitat and Species Diversity. There are 4 strategies specific to diversity: Identify and map areas of high biological diversity, where multiple biological resources occur in the same habitat (e.g. a sensitive fish, TRPA special interest plant, and target wildlife species occur all within 200 meters of each other); Consider all levels of food web (trophic level) biodiversity (example predator/prey) during project planning and design to help mitigate climate change exposure to individual species and communities (e.g. from changes in phenology and habitat shifts); Promote actions that increase meadow wetness and diversity of native wetland species (i.e. obligate, facultative-wet); Maintain, enhance, and/or restore terrestrial habitats to increase the diversity, abundance, and distribution of species and biological communities.
- All management area concepts specifically mention diversity: **Wilderness Management Area:** These areas help sustain ecosystem function and species diversity by serving as habitat for fauna and flora and providing wildlife corridors; **Backcountry Management Area:** Backcountry areas contribute to ecosystem and species diversity and sustainability, serve as habitat for fauna and flora, and offer wildlife corridors. These areas provide a diversity of terrestrial and aquatic habitats, and support species dependent on large, undisturbed areas of land; **General Conservation Management Area:** These areas contribute to ecosystem and species diversity and sustainability; serve as habitat for fauna and flora; and offer wildlife corridors; **Transition:** These areas contribute to ecosystem and species diversity; physical and biological resource conditions are managed carefully due to the high level of use and close proximity to highly developed lands.
- One standard and guide in Conservation of Species and Habitat specifically mentions diversity of plant and animal communities on project specific basis (guideline)

PC 154: The Forest Service should analyze the effects of climate change on individual species.

Response: Currently the FEIS has general sections for wildlife, aquatic, and plant species on climate change impacts that acknowledge our uncertainties. In addition there is mention that climate change may impact the following species specifically: Pacific fisher,

northern goshawk, great gray owl, CA spotted owl, Sierra NV red fox, Pacific marten, CA wolverine, Yosemite toad, Tui chub, Great Basin rams-horn, northern leopard frog, Lahontan cut-throat trout, Sierra Nevada yellow-legged frog, Whitebark pine, long-petaled Lewisia, and veined water lichen. In addition, specific language related to climate change was added for Tahoe Draba and Cup Lake Draba into the FEIS.

PC 155: The Forest Service should analyze effects of climate change on evolutionary response of individual species.

Response: This is outside the scope of this project. There is very little information on the evolutionary response of individual species related to climate change. The Plan and FEIS focus on adaptively managing for species diversity and habitat. Monitoring activities outlined in Appendix A (Volume III) will help provide information on the status and trend of these species. Evolutionary response may be conducted by researchers at universities if there is an identified need.

PC 198: The Forest Service should evaluate the impacts of the entire range of human activities, and identify actions that would reduce the impacts and thus partially mitigate increased stress due to climate change.

Response: The potential effects of climate change are discussed in multiple sections throughout the FEIS. The FEIS recognizes that the high visitation rate (5.7 million visitor per year) has the potential to increase stress on natural systems. The Plan balances natural resource protection with multiple uses. It is worth noting that the majority of the use and management activity takes place in the General Forest management area, which constitutes 43% of LTBMU lands in Preferred Alternative E. Human stressors are considerably less in the Backcountry and Wilderness management areas, which comprise 48% of LTBMU lands. Santini-Burton/Urban Forest Parcels comprise the remaining 9% and have mixed uses, but are managed to protect the values for which they were acquired.

PC 482: The Forest Service should implement a comprehensive climate change strategy to preserve the Basin and begin to address the worldwide climate change crisis.

PC 483: Forest Plan should address climate change by preparing the Forest to respond to changing conditions in weather, landscape and budget while working towards desired conditions.

Response: The list of relevant handbooks/guidelines related to climate change and the Forest Service's strategy to addressing climate change has been added to the other sources of information section in the FS Plan. There is currently minimal guidance on how to address climate change in NEPA documents. Existing guidance has been summarized in the FEIS Section 3.4.7 – Climate Change.

PC 271: The Forest Service should evaluate potential for changed flow regimes as a result of climate change to create barriers to aquatic species movement (include evaluation of the effect of dams, diversions, conveyances, and culverts) on aquatic connectivity.

Response: Section 3.4.3 – Aquatic Wildlife of the FEIS discusses the potential for changed flow regimes and potential impacts on aquatic species in the climate section.

The LTBMU has completed an aquatic organism passage (AOP) survey of all NFS roads in the LTBMU. The LTBMU is currently in the process of prioritizing management of identified connectivity barriers and development of a monitoring plan which will assess the effectiveness of management activities and revisit a set of passages on a regular basis to monitor their effectiveness over time. While the AOP survey focuses on fish passage issues, the outcome is to identify opportunities to expand migration opportunities for native aquatic organisms including deep water habitat, pool and lakes, as climate change impacts stream flow and temperature.

PC 150: The Forest Service should not use climate change to justify extensive forest treatment that could be harmful.

Response: Climate change is not used to "justify" more aggressive or extensive forest treatments, but is one of a number of factors considered in proposed forest treatments. Desired Condition 22 in the Revised Forest Plan states in part, "Disturbance processes and/or their surrogates create and maintain forest conditions that are well-adapted to current and future climates."

Vegetation treatments are based on the specific desired conditions identified for each vegetation type that were developed based on pre-Comstock conditions, which are being used as a guide for the natural range of variability (Revised Forest Plan Table 1. Modeled Pre-Settlement Historical Reference and Current Conditions). These desired conditions may be met through natural fire, restoration, or fuels thinning as identified in the standards and guidelines for forest vegetation, and fire and fuels sections in the Forest Plan. Many of the current stand densities are too dense to allow for prescribed or wildfire, therefore thinning followed by prescribed burning are a management option to meet desired conditions, while minimizing impacts to resources. As information is gathered through monitoring and research on the effectiveness of current management actions, an adaptive management strategy may be developed to address more effective management actions that could meet the DCs under a different set of climate conditions.

Cultural Resources

PC 20: The Forest Service should identify National Register sites and Heritage priority Assets in the Forest Plan.

Response: The Forest Plan provides a broad description of resources that occur on the basin without specific information that might compromise the confidentiality of the over 150 resources that would comprise the list requested. Several Federal Regulations and agreements require the FS to maintain confidentiality of cultural resources. Sites actively managed by the LTBMU are advertised in various LTBMU or partners' publications.

PC 21: The Forest Service should actively manage and protect National Register Sites and Heritage Priority Assets.

Response: Cultural Resources Desired Conditions 1 and 2 provide for proactive management of all cultural resources determined eligible or whose eligibility has not been determined. These Desired Conditions are consistent with all alternatives.

Tribal Relations

PC 464: The Forest Service should ensure that Special Forest Products and Forest Botanical Products regulations will be recognized in the updated forest plan for tribal/cultural uses.

Response: *36 CFR 223 Subpart G – Special Forest Products, 36 CFR 223 Subpart H – Forest Botanical Products* and other applicable regulations will be added to the Tribal Relations, Standards and Guidelines, Additional Information section of the Revised Forest Plan. This information is consistent among all alternatives.

Fire and Fuels

PC 496: The Forest Service should consider how their literature citations for fire/fuels are applied.

Sample Comment: *"The Draft Plan, Appendix D, claims that "all" scientific studies conclude that fire severity is increasing in forests of the Sierra Nevada management region, but doesn't mention Schwind (2008), Collins et al. (2009), Dillon et al. (2011), or Miller et al. (2012), which each include all of, or a portion of, the Sierra Nevada management region and all of which conclude that fire severity is not increasing."*

Response: The following paragraphs describe scientific papers and their relevancy to Forest Plan Revision:

--Schwind 2008—Examine the Pacific Northwest and Pacific Southwest combined area in their analysis, indicating an increasing trend toward a larger proportion of burned area coming from large fires. There is also a significant trend toward larger mean fire size. Acknowledges increase in high severity over the last decade but no significant overall trend. Combines ALL forest types into a single analysis, ranging from temperate rainforest in WA to Joshua Tree desert woodlands in SE CA. Carries out no statistical analysis whatsoever. Has since been updated with more recent reports that statistically show increased fire area.

--Collins et al. 2009--Illilouette Creek Basin is in Yosemite National Park, is largely unlogged, with over 30 years of managing natural ignitions for resource objectives. This paper describes how this management strategy leads to self-limiting fires that more resemble reference fire regimes (including severity) while acknowledging that fire severity is increasing in other parts of the Sierra Nevada where this management strategy has not been employed. This paper shows the importance of forest fuels in driving the higher fire severities on lands outside of YNP.

--Dillon et al. 2011--This paper does not even consider Sierra Nevada management region, it only looks at Pacific North West and South West; only includes a small portion of the northern most portion of CA and none of the Sierra Nevada. Even so, Dillon's results support the results of Miller et al. 2009 in the Sierra Nevada, because the areas in Dillon's study most similar to the Sierra Nevada (SW US and southern Rockies) were the

two regions they studied that also showed rises in fire severity and/or rises in the area of high severity fire.

--Miller et a.l 2012--No trend in severity in northwestern California. The authors state this is in contrast to Sierra Nevada where the fire severity proportions are increasing. Miller et al. (2009) analyzed all of the data that were available at the time of analysis. More recently, Miller and Safford (2012) repeated the analysis for yellow pine, mixed conifer and red fir forests (which are most of the Sierra Nevada), using imagery covering 98% of all fire area and extending the analysis by four years. They found the same trends as Miller et al. (2009).

Sample Comment: *"The DEIS's fire/fuels section relies upon the concept of fire regime interval departure (FRID) to derive "Condition Class" categories, and assumes that higher Condition Class categories will burn predominantly at higher-severity levels, and at higher proportions of high-severity effects than areas with lower Condition Class"*

Response: The Fire and Fuels report does not state fire severity increases with increases in FRID condition class. FRID simply measures the difference between time since last fire for a pixel on the landscape and the reference fire return interval of the presettlement fire regime of that pixel. The value is then categorized into one of the 3 condition classes. These are meant as metrics of the departure of current condition from that of the presettlement fire regime (see: http://www.fs.fed.us/rm/pubs/rmrs_gtr292/2011_vandewater.pdf). While inferences can be made related to fire severity for some forest types and time since fire (long FRI regimes are often high severity regimes), the Fire and Fuels report makes no such inferences in relation to FRID. Rather, the Fire and Fuels section discusses the application of prescribed fire and managed wildfire in reducing the well documented fire deficit that has occurred over the last century.

Sample Comment: *"Appendix D cherry picks, and fails to also cite the studies that predict no fire increase, or a fire decrease, in Sierra Nevada forests due to future climate change (Krawchuk et al. 2009 [Fig. 3], Gonzalez et al. 2010 [Fig. 3b], Liu et al. 2010 [Fig. 1]). Appendix D inaccurately cites McKenzie et al. (2004) for the proposition that fire will increase in California's forests in the future, when Figure 1 of that study projects a decrease in fire due to increasing summer precipitation."*

Response: *Krawchuk, Gonzalez, and Liu are all global trend scale analyses. The scales of these analyses make application to Forest or Regional scale difficult.*

However: --Krawchuk Fig. 3 classifies current low probability of fire increasing to high probability as invasion, and the opposite for retreat. No category for high probability increasing higher. Krawchuk also states that theirs is a conservative estimate. Their purpose is to develop a useful model. And they only use a single general circulation model (of many). Krawchuk's figures cover the entire globe and are such a scale as to render the location of the assessment area difficult. Even so, Fig. 2 shows pretty clearly that 5 of the 6 pictured scenarios project increased fire probability for the Sierra Nevada area. Also, the eastern edge of the Sierra Nevada area is a "fire invasion" area in Fig. 3,

because it was historically dryland/desert vegetation that is seeing more fire due to cheatgrass invasion. This is immediately adjacent to the Lake Tahoe Basin on the east. Areas left blank in Fig. 3 are either those with already high fire potential that continue high in the future, or areas with low fire potential that continue low in the future. The Sierra Nevada is in the former class. Not being mapped as a fire invasion area does not mean that future fire potential is not high!

--Gonzalez Fig. 3b projects changes in potential vegetation 1990-2100, without definitively disclosing the relationship to fire on those projected changes. Further, the results state "Temperate mixed forest, boreal conifer and tundra and alpine biomes show the highest vulnerability, often due to potential changes in wildfire". Quite to the contrary of the commenter's statement, Fig. 2c in Gonzalez refers to modeled change in fire, and after zooming into the figure (it is of the whole globe!!), one can see that southern and eastern California are dark brown, which is the highest value mapped for projected increase in fire frequency.

-- The Liu paper maps the KBDI (Keetch-Byram Drought Index) and does not actually directly map fire potential. Liu et al.'s results project increasing drought potential across most of the contiguous US, including eastern and southern California, contrary to the commenter's statement.

-- McKenzie et al. (2004) calculated correlations between mean summer temperature and precipitation and annual burned area for eleven western states between 1916 and 2002, and then employed regression models to project burned area into the future under two emissions/climate scenarios. They found strong relationships between their summertime climate variables and fire area for all states but California and Nevada, and concluded that most of the western US was likely to experience large increases in annual area burned by wildfire in the 21st century. However, they conclude that "fire in California and Nevada appears to be relatively insensitive to summer climate, and area burned in these states may not respond strongly to changed climate." In their study, McKenzie et al. (2004) make two errors with respect to their analysis in California. First, they neglect to account for California's Mediterranean-type climate, which features a summer drought of 3-6 months. Second, McKenzie et al.'s (2004) analysis bins southern and northern California, which each contribute about half of California's total burned area in an average year but which are extremely different in their fire-climate relationships. Their analysis thus buries the relatively strong relationship that exists between fire and summer climate variables (in this case, temperature) in the assessment area and other parts of northern California (Westerling et al. 2006, Miller et al. 2009b) under the southern California fire-climate relationship, which is essentially independent of summertime temperature or precipitation (Keeley 2004). In summary, changes in summer temperature and precipitation are unlikely to have strong effects on southern California fire area, but McKenzie et al.'s (2004) predictions for the western US in general are likely to have validity for most of the assessment area.

PC 287: The Forest Service should require retention of at least 90% of any moderate/high-severity burn areas which are created by fire, wildland or otherwise, outside of the Defense Zone, and retain the maximum possible amount of such habitat that can be retained in the Defense Zone while ensuring protection of homes.

Response: We recognize the value of moderate and high severity burned habitat and to better reflect that recognition, the Revised Forest Plan has been updated with a revised burned area standard, and now incorporates a strategy designed to promote this important habitat type. However, having a forest-wide standard regarding a snag retention requirement will be problematic. Standing snags often present safety hazards. Further, once snags fall to the ground, they can present serious fire control problems. Retention standards for burned areas are best set at the project level through an interdisciplinary process.

PC 12: The Forest Service should disclose how climate change will affect the achievement of fuels objectives.

Response: The desired conditions in the proposed forest plan describe forest conditions expected under a more natural disturbance regime. Forest Plan Table 1 also describes structural conditions related to seral-stage ranges expected to develop and be maintained by such a regime, in which reigning climate is a main factor regulating fire activity and fire effects. Forest conditions resembling the desired conditions described in the proposed forest plan would be much more resilient to climate change than current conditions. While it may be possible to meet short-term hazard reduction objectives by retaining all trees greater than 12 inch dbh, it would be difficult to meet forest restoration objectives, although the proposed 12 inch limit does not go into effect until the initial treatments of the collaboratively developed Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy (the 10 year fuels strategy) are complete. Alternative D proposes a strategy where fire is the primary tool used to thin stands. While this is a viable strategy in more remote places, the fire and fuels analysis determined that the likelihood of conditions needed to implement such a strategy is overly reliant on conditions outside of our control.

Some commenters expressed that Alternative D should be chosen over Alternative B since it did more to protect habitat and still met fuels objectives, as did all the alternatives. Regarding the effectiveness of all alternatives meeting fuels and fire behavior objectives, this is largely because all the alternatives assume successful completion of the collaborative 10 year fuels strategy. The 12 inch diameter limit will not be in effect until completion of the strategy. At that time, Alternative D will eliminate the WUI threat zone and the 12 inch diameter limit will go into effect outside the defense zone. Then, in effect, fire will be the main tool allowed for further thinning of the forest. As stated above, this may be suitable in some circumstances. However, this strategy was shown to have higher risk and to have a lower probability of success compared to Alternatives B and E; primarily due to the associated uncertainties. Alternatives B and E provide substantial habitat protections, especially in light of recent changes and additions to various standards and guidelines in the Revised Forest Plan (Alternative E).

Some commenters preferred Alternative D because it allows more area available to managed wildfire for resource objectives. While Alternative D (As well as B and E) proposed the most acres available for managed wildfire, Alt. D has more restrictions to other types of management options; thereby reducing the flexibility that will be needed should the environmental or regulatory conditions necessary for safe implementation not materialize and all the eggs are essentially in the same basket. Alternatives B and E proposes equal area open for managed wildfire, but allows more flexibility to use other tools to meet objectives should opportunities to use managed wildfire do not materialize.

PC 99: The Forest Service should reintroduce natural processes such as fire.

Response: Alternatives B and E provide appropriate flexibility to meet restoration objectives to achieve desired conditions including reintroduction of natural processes.

Some commenters expressed support for managed wildfire but concern for community protection. All four alternatives place community protection as a primary objective. Managed wildfire decisions will be made only if risks to communities can be mitigated. Likelihood of affirmative managed wildfire decisions decrease with proximity to communities.

PC 174: The Forest Service should provide a balance between native wildlife protection and fuels management.

Response: Alternatives B and E provide a balanced approach reflecting the importance of wildlife and their habitats, reducing risk to communities and resource values, and the many uses and activities that occur on the forest. Any projects such as vegetation and fuel treatments implemented will be designed through the interdisciplinary process to achieve or maintain desired conditions described in the proposed forest plan. Creating and maintaining more fire resilient landscapes is a high priority.

Some commenters expressed support for fuels reduction and said that the project slash should be used as biofuels. The LTBMU supports biomass utilization. The biofuels industry is generally market driven and market forces will determine whether slash or other biomass is utilized as such.

PC 5: The Forest Service should implement a more aggressive fuels management program.

Response: Alternative C is our most aggressive in terms of fuels management. Alternative D is the least aggressive. However, all the alternatives propose to follow the collaboratively developed Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy (2007) for initial WUI treatments. All treatments, both inside and outside the WUI, will be designed on a project specific basis, and while fuels reduction may not be the primary objective outside the WUI, these projects will usually have fuels reduction as an ancillary benefit.

Some commenters are long-time residents of the Tahoe area and are concerned about the apparent increasing fire activity in recent years. It is true that fire size and severity

appears to be increasing in the Lake Tahoe Basin, as it is in other areas in the western US. The reasons for this are mainly because fuels continue to accumulate when we put all the fires out. Historical (presettlement) fires burning with relative frequency regulated fuel accumulation. Warming climate is also cited as a cause of increased fire size and severity. It is uncertain how much population increase is expected in the Lake Tahoe Basin but population size is usually well correlated with ignitions.

Some commenters are concerned that managed wildfire is to dangerous due to the hazardous fuel conditions. While managed wildfire is allowed to some degree in all alternatives, in none is it allowed in the WUI defense zone (immediately adjacent to homes). Prescribed burning and managed wildfire will always be conducted under prescribed criteria. All the alternatives also propose to implement the 10 year fuels reduction strategy.

Some commenters expressed concern that additional wilderness areas will compromise the ability to manage or suppress wildfires. Areas proposed for Wilderness designation are currently roadless areas. As such they have limited access for increased fuels reduction. Although Regional Forester approval is required to use some suppression techniques in Wilderness, approval is generally granted in a timely fashion when lives and property are at risk. Where adjacent to WUI and appropriate and necessary, roadless areas will be treated, but will most likely be limited to hand treatments. All fuels treatments are designed to meet minimum fire behavior objectives.

PC 22: The Forest Service should ensure effective fuels management in areas where WUI overlaps the Backcountry Management Area.

Response: Since WUI does not overlap most roadless areas, fuels treatment occurs infrequently in roadless areas. However, any portion of Inventoried Roadless Area that is located in WUI will be considered for fuel hazard reduction and project level planning will determine treatment design criteria. All fuels projects, in roadless areas and elsewhere, will meet minimum fire behavior modification objectives. Protection of communities receives top priority.

PC 100: The Forest Service should reduce hazardous fuels.

Response: All the alternatives propose to follow the collaboratively developed Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy (2007).

Other commenters expressed concern over changes in suppression and prevention capabilities. Suppression and prevention programs remain unchanged in any alternative.

PC 282: The Forest Service should clarify the acres of managed wildfire in each alternative.

Response: The 1988 Forest Plan as amended by the Desolation Wilderness Plan allows managed wildfire in the Desolation Wilderness. The LTBMU portion of the Desolation Wilderness is the only area where this management practice would be allowed under

Alternative A (1988 Plan as amended). In Alternatives B, D and E, managed wildfire is allowed on all NFS lands except the WUI Defense Zone. In Alternative C, managed wildfire is allowed on all NFS lands except the WUI Defense and Threat Zones.

In the Fire and Fuels section of the FEIS (3.4.10) we modeled potential managed wildfire acres based on historic lightning ignitions and weather conditions conducive to managing wildfires for resource objectives. The maximum annual acres of manage wildfire in the FEIS are estimates of maximum acres under optimal conditions and are intended as a best-case scenario. It would be unwise to prescribe a minimum managed wildfire target since there are a multitude of uncertain factors required for these decisions that are outside of our control such as weather and regulatory limitations.

PC 488: The Forest Service should make fuels management the top priority.

Response: All the alternatives propose to follow the collaboratively developed Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy (2007). Fuels management is a high priority under all alternatives, because roughly 75% of the Lake Tahoe Basin is within the Wildland Urban Interface.

Some commenters are concerned that roads needed for fire access would be eliminated. Roads that are required for emergency access are retained.

PC 491: Forest Plan should emphasize and ensure prescribed fire that mimics natural processes to the greatest extent possible (i.e., summer/fall burning), and discourages unnatural practices such as pile burning and artificial ignitions during the wet seasons (winter, spring).

Response: The LTBMU recognizes the role of fire and the need to restore natural processes to enhance forest health and resilience. This point is emphasized throughout the Revised Forest Plan and the FEIS. We also acknowledge in the vegetation and fire and fuels sections (3.4.10 and 3.4.11) that pile burning and mechanical treatments are not natural. Mechanical treatments are often necessary precursors to applying fire treatments in a safe and effective manner. Pile burning is often the most feasible means to dispose of residual post-treatment fuels which then enables follow-up maintenance burns in the future. While the ecological effects of pile burning are mixed, it does put fire back into the system. When possible, fire is allowed to creep between piles, providing enhanced ecological benefit over just pile burning. Usually ecological underburning cannot be implemented until the piles are burned. As such, pile burning is a critical element in the effort to restore natural processes. Lastly, in regards to season of burning, as described in the Fire and Fuels chapter of the FEIS, a variety of constraints limit opportunities for prescribed burning. Missing any opportunity only exacerbates the backlog problem related to fire return interval departure.

PC 493: The Forest Service should consider the limitations of FRCC in their fuels planning and analysis.

Response: The plan does not use Fire Regime Condition Class (FRCC) data. The FEIS Fire and Fuels section (3.4.10) does use Fire Return Interval Departure (FRID) to derive

condition classes based on current departure from reference pre-settlement fire regime mean point fire intervals. Please see:
http://www.fs.fed.us/r5/rsl/clearinghouse/r5gis/frid/California_FRID_graphic_2011b.pdf

PC 494: The Forest Service should explain their strategy for burning piles.

Response: Pile burning is a significant component, and one of many options and tools used in the fuels reduction and forest restoration strategies. Where fuels have accumulated or grown to hazardous conditions, fuels reduction is often needed to reduce potential for undesirable fire activity. This usually requires cutting trees and piling the material as part of the phased treatment schedule. Alternatives to burning piles are considered, but due to costs, access limitations, or other constraints, burning the piles is often the most practical option.

Some commenters asked why piles were created and burned so close to live trees. Some degree of overstory tree mortality is acceptable during prescribed burning, and may in fact, be desirable, as when trying to enhance wildlife habitat by creating snags.

PC 495: The Forest Service should restore resilience to forests through reintroduction of fire.

Response: The LTBMU recognizes the role of fire and the need to restore natural processes to enhance forest health and resilience. This point is emphasized throughout the Revised Forest Plan and the FEIS. Under current direction, the Forest Service is required to suppress all human caused wildfires, and naturally caused ignitions in the Desolation Wilderness may be managed for resource objectives if conditions permit. The new proposed plan allows substantially more opportunities to managed wildfire. However, all human caused ignitions will be suppressed as per National Fire Policy.

Some commenters support reintroduction of fire but have concerns for community protection. All four alternatives place community protection as a primary objective. Alternatives B and E provide appropriate flexibility to meet restoration objectives to achieve desired conditions including reintroduction of natural processes.

PC 497: The Forest Service should improve the analysis of fuels.

Sample Comment: *"the DEIS fails to divulge the fact that most of the fire that occurs in Sierra Nevada forests occurs at less extreme fire weather than 90th percentile, and fails to disclose the fact that current fires are strongly dominated by low/moderate-severity fire effects."*

Response: As stated in the Fire and Fuels section "As with all models, FLAMMAP provides estimates of possible real-world processes. The model will never perfectly replicate actual events." However, models are sometimes useful. In this case, FLAMMAP is used to describe the relative fuel hazards throughout the LTB in terms of crown fire potential. We agree that fire under less severe burning conditions is less of a concern to fire managers trying to protect values at risk. But fire managers need to plan for conditions that are problematic such as expected fire behavior at or above 90th

percentile weather conditions. Recent large fires in the Lake Tahoe Basin have burned at severities greater than the "low/moderate-severity" as stated in the comment. Modeling fire behavior at low fire weather conditions would not provide the type of information needed when planning to reduce the risk to communities and others values at risk.

PC 500: The Forest Service should use natural ignitions for fuels reduction and forest health.

Response: Restoring natural processes is a focus area of the Revised Forest Plan. The LTBMU will use fire when possible (prescribed fire and managed wildfire) to achieve desired conditions as described in the Revised Forest Plan, while mitigating safety concerns, and within regulatory environmental constraints.

PC 507: The Forest Service should only conduct fuels treatments within less than 100 meters of individual homes.

Response: The effectiveness of WUI fuel treatments at reducing fire intensity and fire effects is well documented (Safford et al. 2012). The need for more fire resistant home construction is recognized. However, the Forest Service manages federal lands and has little influence on how private citizens construct their homes and must reduce risks near communities regardless of the flammability of structures. Cohen (2000) states that "Consequently if the community or home site is not considered in reducing WUI fire losses, extensive wildland fuel reduction will be required. For highly ignitable homes, effective wild-land fire actions must not only prevent fires from burning to home sites, but also eliminate firebrands that would ignite the home and adjacent flammable materials. To eliminate firebrands, wildland fuel reductions would have to prevent firebrand production from wildland fires for a distance of several kilometers away from homes". Therefore, since the Forest Service cannot ensure homes will be fireproof, fuels treatment is required. The Forest Service intends to reduce risk to ALL homes, not just "most" homes.

PC 506: The Forest Service should suppress all natural ignitions.

Response: Restoration of natural processes, including fire, is essential components to the ecosystem restoration of the LTBMU. Prescribed fire and managed wildfire are the main tools used to meet these objectives. The proposed Forest Plan does not allow managed wildfire in the WUI defense zone. Use of prescribed fire or managed wildfire will occur only when safety issues can be mitigated. Heavy equipment and large air tankers will only be used during suppression actions. The exception to that will be if heavy equipment is used in pre-treating areas prior to use of fire. During prescribed fire and managed wildfire operations, spotting potential will be a consideration fire managers address prior to and during implementation. The Angora fire is a good example of conditions at which, and locations in which, suppression will be the obvious action taken. The 1988 wildfire use event in Yellowstone occurred within the natural range of variation for the lodgepole pine forest of that region. That is an infrequent and high severity fire regime, and as such, the fire behavior and effects were as expected for that type of regime. The forests of the LTBMU are mostly Jeffrey pine, mixed conifer, and red fir; forests that historically had a much more frequent fire regime of mostly low to moderate severity. Currently many of

these forests are overstocked due to fire suppression and past logging. Managing natural ignitions and using prescribed fire are the tools we need to utilize to move the forest into a more natural and resilient condition.

Forest Vegetation

Old Growth / OFEA

PC 25: The Forest Service should provide explanation of how old growth will continue to be protected without the OFEA

PC 98: The Forest Service should protect and promote old growth forests

PC 442: The Forest Service should maintain OFEAs

Response: The OFEAs in the current forest plan were not delineated by the local unit. Rather, they were delineated through a regional process and for the purpose of connecting habitats of old forest dependent species Sierra Nevada wide. However, these areas in the Basin do not contain all of the old or late seral forest stands. The Revised Forest Plan would emphasize the same concepts originally designed for the current plan, but apply them to each location of late-seral forest throughout the Basin. That is, design treatments to enhance/perpetuate the existing late-seral forest stands while enhancing/promoting mid-seral adjacent stands that most effectively connect late-seral habitats (e.g. spotted owl or Goshawk Protected Activity Centers (PACs) and Home Range Core Areas (HRCAs)). In order to enhance or perpetuate late-seral stands, in some cases on a project-specific basis, prescriptions will need to have some flexibility in order to accomplish this objective. That is, have the ability to kill or remove trees greater than 30 inches in diameter. This option, though an exception, will become more essential as larger trees become more prevalent, but still need space to grow. Such a prescription that includes this exception will focus primarily on outcomes with wildlife habitat in mind.

Maintaining all late seral stands is more effective than OFEAs and the objectives and S&Gs are aimed at enhancing the longer-term health and resilience of these areas as well as provision for management adjacent to PACs and HRCAs (see Biological Resources Program Strategy for connectivity between Late Seral stands and in Forest Vegetation S&Gs regarding opening locations).

Standards and Guidelines have been added and/or clarified to the Revised Forest Plan to ensure protection of late seral stands, with the result that the standards and guidelines in the Revised Plan now provide stronger protection than the current Plan as amended.

PC 447: The Forest Service should consider how their literature citations for old growth are applied

Sample Comment: *"Appendix D (Volume III) cites to van Mantgem et al. (2009) for the proposition that old-growth forests are dying at increased rates, despite the fact that that study provided no data on old-growth trees (the largest size class was trees over 15.8 inches in diameter), and did not find that old-growth trees were experiencing accelerated mortality."*

Response: In Appendix D the Van Mantgem et al. (2009) citation is a broader look at mortality in old growth stands. They view mortality for the western USA and Sierra-wide. Also, this section is in relation to climate change and the term old growth is not used in the other Forest Vegetation sections in this analysis.

In Chapter 3.4.11 of the FEIS (Forest Vegetation) the annual mortality surveys in the Lake Tahoe Basin show overlap with Protected Activity Centers for Spotted Owls and Goshawks, which tend to be areas in or trending towards late seral. The quantification of mortality in the table and from personal observation indicates that the larger trees are succumbing to bark beetle infestations. The primary factors related to the mortality appear to be from high densities of competing trees in both over- and under-stories along with lower than average precipitation.

The literature provided by commenters tends to focus on forest conditions more indicative of wetter forest conditions and different forest types of west slope orientation. For these reasons, this literature is problematic for establishing desired conditions in the late seral stages of development. The literature used for the analysis conducted in the FEIS focused primarily on studies in the Lake Tahoe Basin or areas in proximity to the Basin.

There are two camps within the plethora of literature covering the topic of Old Growth. 1) Quantitative, i.e. over a certain size tree, or 2) Qualitative, i.e. contain certain conditions. Neither camp looks at individual trees, but rather at a stand-level perspective.

The analysis for the revision of the forest plan is based on late-seral forest rather than old growth as there are too many sometimes contradictory findings in how old growth as a condition is defined. Thus, where needed, qualitative conditions and quantitative conditions are given to describe desired conditions and design criteria.

See Bouldin (1999) for comparative trend between increases in small to mid-sized trees versus a decline in larger trees across Forest Inventory & Analysis plots between 1935 and 1992. This study has been corroborated by others (e.g. Dolanc et al., 2010). In addition to these studies, the USFS State and Private Forestry, Forest Health Protections' annual aerial mortality surveys of the Lake Tahoe Basin indicate a trend of mortality in pockets of large trees (aka old growth) due to drought stress, competition from high densities of trees, and bark beetles.

PC 441: The Forest Service should re-evaluate the criteria used in identifying old growth stands and explain their rationale.

These are found in Table 1 of Part 1 of the Revised Forest Plan. We do not use the term old growth, but rather use the term late seral open or late seral closed. The reason for this is that old growth generally is a small fraction of the late seral stage, is subject to a wide range of perceptions, and generally occurs as a condition that has escaped stand replacing fire or other disturbances often over a period of centuries. This condition in the lower elevations would be rare in the Basin given the high frequency of historic fire. Thus, late seral is used to identify habitats on which certain species are dependent.

The 2000 Lake Tahoe Basin Watershed Assessment used two definitions of old growth: one by Joanne Fites that used large trees over a certain size, and one by Michael Barbour that did not include stands where tree cutting had been done. We agree that by either definition, the late seral stages are below historic levels and our desired conditions seek to increase this stage within all of the major forest types. The criteria used for differentiating seral stages are quantitative, based in part on California Wildlife Habitat Relationships classification system as well as additional models integrated by R5 Ecologist Hugh Safford.

PC 217: The Forest Service should include basal area retention requirements

PC 218: The Forest Service should include canopy cover requirements for areas outside of PACs and HRCAs

Response: Basal area and canopy cover retention percentages as per the current forest plan tend to interfere with meeting treatment objectives. The goal of such retention requirements, however, is espoused in the plan revision by targeting smaller understory trees for removal so as to enhance the larger overstory trees. Inadvertently limiting the target trees for removal jeopardizes the ability of the FS to improve the health and resilience of the overall stand. Forest Plan direction has been added to maintain habitat quality adjacent to PACs and HRCAs (see Wildlife response to comments), and to limit canopy cover removal in late seral closed stands.

Openings/Early Seral Forest

PC 446: The Forest Service should clarify strategies for maintaining openings and early seral forest.

Sample Comment: *"Also missing from the draft Plan is a science-based discussion of the difficulties of maintaining "early seral" treatments or "openings" in the forest when simple observation of "treated" areas reveals that both the understory and trees regenerate easily? How often will treated areas need to be "maintained" and at what costs to agency budgets? Are maintenance costs built into the treatment budgets?"*

Response: There is no strategy for maintaining early seral treatments or openings. Early seral and forest openings are transitory conditions. We would expect them to continue growing and evolving into mid and late-seral conditions. If the LTBMU continues to be deficient in early seral, we would create more until the balance described in the desired conditions is achieved.

PC 87: FEIS should explain why maximum opening is 10 acres when this is not a current practice in R5

PC 215: The Forest Service should not create 10 acre clearcuts

PC 498: The Forest Service should clarify the rationale for and the effects of creating openings

Actually, this is a current practice and use of the group selection with reserves prescription comes from the Herger-Feinstein Quincy Library Group forests within Region 5. In addition, the current forest plan calls for 7 acre openings to create early seral habitat. Throughout the implementation of this plan, the unit has not actively created such openings due to the need to address two major insect outbreaks (one in the late 1980s and the other throughout the 1990s) and the reduction of hazardous fuels (a national mandate) to reduce the threat of catastrophic fire around communities at risk (the Basin has numerous communities at risk throughout the Basin), and to address the restoration of the Angora Fire (2007) area.

Clear cut logging is not mentioned in the FEIS or Plan because it is not a current practice on the LTBMU. The Plan does clarify what is in the FEIS regarding the Group Selection with Reserves prescription. This is primarily in the Wildlife and Vegetation sections (3.4.23 and 3.4.11).

Guidance in the revision of the forest plan is to move some of the mid-seral stage of each major forest type, which is the most over-abundant seral stage in all types, to an early-seral stage, which is the least abundant in all types. These seral stage adjustments will occur primarily in the second 10 years of the forest plan and on a small scale. Most openings will be 5 acres or less and only in a rare instance and in areas where project-specific analysis warrants will an opening be 10 acres. Also, such openings may not appear to be openings as the preferred prescription to return some mid to early seral is called group selection with reserves. That is a group of trees are selected for removal while clumps or individual large (legacy) trees are reserved for structural heterogeneity and sources of seed for the regeneration of preferred species.

From Helms (1998): **Group Selection with Reserves** is a form of uneven-aged (selection) methods to regenerate and maintain a multi-aged structure by removing some trees in all size classes either singly, in small groups, or in strips

> —group selection trees are removed and new age classes are established in small groups
>
> —group selection with reserves some trees within the group are not cut to attain goals other than regeneration within the group

Agreed. The mid-seral stage of forest stand development is over abundant for all major forest types across the Basin. After considering other resource objectives, e.g. PACs/HRCAs, recreation sites, and cultural/historic sites, as well as visual quality objectives, some of this mid-seral stage would be treated on a site-specific basis and

consistent with project-specific goals and objectives to return small portions to an early seral stage.

The size of such openings would not exceed 10 acres and the majority would be 5 acres or less, depending on the topography and geographic features (streams, roads, etc.). The predominant prescription is called **group selection with reserves**, which allows for removal of some of the overstory while also retaining small clumps of trees that generally contains the largest trees to serve as seed trees. Over time these openings would grow from early seral to mid seral. Treatments scheduled from the early seral stage onward would allow greater flexibility to achieve late seral characteristics (>100 year timeframe).

Openings made in white fir/mixed conifer stands could be planted with Jeffrey pine in order to restore historically occupied Jeffrey stands. Following the Comstock-era logging of pine at the turn of the last century, many pine stands grew back as fir and in the absence of fire have persisted as fir instead of pine.

PC 234: The Forest Service should leave clumps of mid-seral forest in the large openings to create more varied wildlife habitat.

Response: Agree. This is exactly what we intend in our forest plan. We have clarified the use of this type of feature, using the prescription for these opening called Group Selection with Reserves. This means that openings would retain some larger (legacy) trees and/or clumps of trees as well as some of the advanced regeneration of desirable species in the understory.

Post Disturbance Tree Removal

PC 10: The Forest Service should not implement salvage logging

PC 73: The Forest Service should provide standards to prevent salvage logging after major disturbance events to protect habitats

PC 130: The Forest Service limit the amount of entry into the burned landscape only to manage areas where hazard trees may hit homes or roads

Response: Post-fire restoration treatments will be prescribed and evaluated on a project-specific basis. In addition to analyzing for impacts (whether real or potential) from post-disturbance treatment, there are real and potential impacts of not treating the post-disturbance conditions.

The Revised Forest Plan includes direction for restoration of burned areas and does not promote salvage logging of woody material. Rather, logging is a tool that may be used when other means would not be as effective. Not using such a tool could cause a trade off in terms of some other impacts from, e.g. hand piling and burning, which would mean more smoke in the air. The appropriate type of logging system can be chosen on the basis of resulting conditions from the wildfire.

Generally, the objectives analyzed in the project-specific analysis include tree/woody material removed for public or worker safety, pro-active fuels reduction, or another

objective, e.g. scenic. After safety considerations are met, wildlife habitat would be the next driver for retention of post-fire mortality. When post-disturbance wildlife considerations are met, e.g. 3-5 yrs., then removals/ fuel reduction could occur in WUI. Cost recovery would not be an objective, but could assist in reducing the overall cost impact to the tax payer if markets are available.

PC 79: The Forest Service should acknowledge the scientific controversy: (1) logging is an effective way to mimic natural disturbances, (2) removing large trees reduces fire risk and increases vigor of remaining trees, (3) no ecological benefit from logging dead trees and replanting seedlings after natural disturbance

Response: We disagree that the use of surrogate treatments in place of natural disturbance, primarily thinning and fire, in human-altered forests where past logging and fire exclusion have occurred is controversial. In fact, the impacts of such historic practices, if left to further degrade would result in completely unnatural wildfire, bark beetle outbreak, disease pockets, and lower vigor such that young to mid-seral stage forest stands would be unlikely to adapt to climate change and succeed to a late-seral stage. However, we acknowledge that there are potential impacts to both treatment and unplanned disturbance (natural or human-caused, e.g. wildfire from lightning or an abandoned campfire), but these are analyzed at a project-specific level.

There is no disagreement that if the forest around Lake Tahoe were closer to the natural range of variability then the need for surrogate treatments would be less. Surrogates by their very nature do not represent the actual effects of natural disturbance. This is not disputed. Given the proximity of the forest to the developed interface, policy requires that human-caused wildfires be suppressed, thus limiting the use of this tool.

To be clearer than we may have been in the Draft EIS/Plan, large trees greater than 30 inches in diameter are cut, killed and/or removed as an exception in certain circumstances where doing so enhances the health of the residual stand of trees, public safety, or restores habitats (e.g. aspen). The analysis shows that there will be a greater occurrence of trees over 30 inches dbh in years to come. These stands will continue to grow and require thinning to remain resilient and healthy. Thus, trees greater than 30 inches will need to be cut.

PC 37: The Forest Service should utilize all of the active management techniques, including mechanical treatment, available to the agency.

Response: Where feasible and determined to be effective, mechanized equipment will be utilized to accomplish project objectives. Innovation to remove and utilize woody material from hand treatments rather than piling and burning it are also options to be determined on a project specific basis. In current projects consideration has been given to using cable systems that could partially suspend trees when sufficient road or trails are present to allow for such a system. Innovative systems could aid in the treatment of stream and other riparian zones as well as on steep slopes that are inaccessible to mechanized equipment. BMPs are determined during project planning and analysis.

Forest Health

PC 178: The Forest Service should maintain forest health to promote a strong local economy

Response: Agreed. Forest health in the plan is a desired condition that in turn improves scenic integrity (i.e., a healthy forest is generally considered at a low risk of bark beetle caused mortality at outbreak levels or low risk of large crown fires) and sustains a diverse array of wildlife habitats. Healthy ecosystems provide high quality recreation settings which in turn, support economic health.

PC 205: The Forest Service should define forest health in the Forest Plan

Response: Forest health is defined in the FEIS Glossary (Volume III, Appendix M). An exact definition of what constitutes forest health can be debated so it is important that for our forest plan we provide one that clarifies our intent relative to our desired conditions. From Helms, 1998: **Forest Health** – *The perceived condition of a forest derived from concerns about such factors as its age, structure, composition, function, vigor, presence of unusual levels of insects or disease, and resilience to disturbance*.

When this definition is applied to a landscape, across all major forest types, a healthy forest would be one that is sustainable over the long run, i.e. centuries. Factors of forest health that are currently in a very poor state include the diversity of age and structure, vigor, and resilience to disturbance. These are the factors that the plan primarily seeks to address over the next 20 years and beyond.

PC 97: The Forest Service should minimize tree removal during fire suppression activities

Response: The FS when suppressing fire in the Basin most often utilizes MIST or minimum impact suppression tactics in order to lessen the impacts of fire suppression on the natural resources. Logging is not generally feasible during fire suppression, but the falling of trees hazardous to fire fighters or to return flaming trees to the ground are used. Perceptions of what does or does not constitute a hazard from large trees during fire suppression are beyond the scope of this plan. This is an operational decision that must weigh the administrative or resource advisory inputs, but yet remain an on-the-ground decision with suppression forces.

PC 169: The Forest Service should explain why there is no timber production requirement for the LTBMU.

Response: The current forest plan determined lands within the LTBMU did not meet national criteria for timber production. These include criteria for suitability or productivity. The FEIS conducted a similar analysis to determine whether lands within the LTBMU met these criteria and they did not (Volume III, Appendix G – Timber Suitability). Only lands that are suitable and productive are considered for allocation of timber volume targets established by the US Congress and meted out through the Regional Office. However, this does not mean that there are no wood products coming

off of NFS lands within the Basin. Volume that might be sold as part of a "timber sale" or "service contract" for other objectives is not target driven.

PC 224: The Forest Service should actively restore forested ecosystems suppressed by lack of fire.

Response: Agreed. This is an important objective in the forest vegetation section of the Forest Plan and is essential to re-introduce fire in order for the ecosystem to function more naturally.

Tree Removal

PC 104: The Forest Service should eliminate logging and extractive industries from our public lands

Response: The forest in the Lake Tahoe Basin, though green and beautiful today, is not the figure of good health. Over 90 percent of the lakeside forest was harvested to supply timbers to the silver mines in Nevada in the late 1800s and early 1900s. At the same time, suppression of wildfire was adopted as policy to protect natural resources, development and people. As a result, the forest around Lake Tahoe has not developed as it would have if natural processes such as fire occurred. To protect scenic values and ecosystem services as well as wildlife habitats, a proactive approach is necessary and logging is a tool used to manipulate forest vegetation to accomplish a variety of these resource goals/ objectives. The FS contracts work to be accomplished on NFS lands and it is the contractors' prerogative as to whether wood removed from a project site is suitable or even economically feasible for deliver to a wood utilizing industry.

There are currently no extractive industries located within the Lake Tahoe Basin on NFS lands.

PC 216: The Forest Service should clarify standards for cutting trees greater than 30 inches DBH.

PC 233: The Forest Service should only remove trees greater than 30 inches DBH when absolutely necessary.

Response: Agreed. The 30 inch diameter exceptions are intended to enhance and promote late-seral habitats as well as provide for public safety and in certain other cases. These cases need to be determined on a project/site-specific basis. Forest Vegetation Standards and Guidelines were updated for clarification in coordination with a wildlife biologist and fire ecologist to ensure a more cohesive integration of this item. In some instances, for example, it is not necessary to cut and remove a tree if killing it and leaving it in place as a feature of a habitat such as snags or down wood is the objective.

PC 229: The Forest Service should prohibit felling of trees more than 150 years old.

Response: Disagree. The majorities of trees in the four major forest types are already over 100 years of age and are classified as mid-seral stage of development. Many of the trees in this seral stage are likely to be 150 years old. However, if they are larger than

other overstory trees, they would likely be retained during thinning and even where openings may be made as a reserve tree or part of a clump of reserved trees.

What is important is the fundamental aspect of tree growth in older trees, which is that reducing competition, even in older groups, can show a positive growth response in the remaining trees, thus allowing them to continue growing to a much older age. In the case of the major forest types analyzed in the Basin, Jeffrey pine can typically reach an age of 400-500 years if they have room to grow with some known cases of up to 600 year; red fir can likewise grow to more than 500 years; and in the case of white fir up to about 300 years. Given the longevity of these tree species when growth conditions are adequate (i.e. room to grow), the current ages of the major forest types at Lake Tahoe are still on the younger side and appear to be correctly categorized from an age perspective primarily within the mid-seral stage of development.

PC 230: The Forest Service should not cut trees.

PC 437: The Forest Service should either eliminate most cutting or substantially reduce the area of the planning unit exposed to either scheduled or non-scheduled cutting.

Response: Cutting trees is an essential piece of nearly all management aimed at sustaining Tahoe's forest and associated benefits as well as reducing the risk of catastrophic fire to the adjacent communities. We recognize that cutting trees has an emotional, even spiritual effect on people who value them inherently. However, we also realize that our own habitation within and around the forest restricts the natural trajectory of forest growth and disturbances that would ordinarily shape the openings and thin the understory trees. In lieu of these natural disturbance processes, we bear the responsibility to emulate as close as possible what these processes would have done, following an ecosystem-based approach.

The management of Lake Tahoe's forests is not driven by forest industries; in fact, there hasn't been a market for timber products since 2007. The role any market outlet has in terms of the forest management that is implemented on the Basin is to reduce the cost (of tax dollars) to reduce hazardous fuels, improve wildlife habitat and forest health, and restore fire into the ecosystem.

PC 231: The Forest Service should focus on removing trees that are younger, ladder trees, or within the dripline of more mature, sturdy trees.

Response: Agreed. This is one of the strategies employed to achieve conditions that would be similar to those if fire had periodically burned in the understory. In part, this strategy is to restore fire in the ecosystem and in the event of a wildfire, allow for suppression resources to safely operate and in part to provide growing space to the stand of trees in order to be more resilient to fire, bark beetles and other drought related causes of mortality. This strategy is used in both mid and late seral stages.

See response to PC 229 for discussion of removing trees around more mature trees.

PC 232: The Forest Service should not cut trees >30 inches diameter.

See response to PC 216.

We disagree that trees greater than 30 inches should not be cut. However, we have improved the language in the forest plan to reflect our intent that the cutting of trees greater than 30 inches is an exception and not a general practice. The circumstances in which trees over this diameter would be cut are also explained in greater detail.

The forest that has been growing back since the Comstock silver mining era removed most of the trees from around the Lake is essentially a single-aged forest that lost its structural heterogeneity as well as the ecological role of fire. Instead of frequent low intensity fire thinning and controlling shade-tolerant species in the understory as well as fire intolerant species in the overstory, the current forest has grown into an over-dense, single cohort of even-aged trees, which as they get larger require greater amounts of water to survive. As a result, the forest has had some growing pains in the form of two recent (late 1980s and throughout the 1990s) bark beetle outbreaks and three large fires (Gondola in 2002, Showers 2002, and Angora 2007) that burned at high severity. Although both forms of disturbance would occur naturally, these events were not what the research into historic conditions would describe as within the historic range of variability.

Management that is not permitted to cut and/or remove trees greater than 30 inches will ultimately fail to sustain the forest at Lake Tahoe. More dramatic changes will be in store over the short and long term with potentially devastating effects on the people, their homes and business and infrastructure when bark beetle outbreaks and catastrophic fires occurs.

PC 453: Forest Service vegetation management practices are too destructive.

Sample Comment: *"I live near Rabe Meadow, and the damage from the recent tractor logging was truly unconscionable."*

Response: Regarding Rabe Meadows, the Round Hill Project utilized a cut-to-length system that uses low ground pressure equipment and fully suspends the material removed using a forwarder. Along scenic Highway 50 and along the Lam Wah Tah trail, more trees were left to retain edge effect and scenic quality. No logging was conducted in the meadow. This project achieved its stated purpose and need, and in the event of a wildfire, suppression efforts will be more safe and effective.

Treatments to reduce hazardous fuels and restore forest health when conducted using mechanized equipment will appear disturbed for 3 to 5 years following the treatment. Although these treatments employ best management practices and resource protection measures, the result at the time of treatment stands out from untreated forest and it takes some time for those disturbances to return to a more natural appearance. There are certain trade-offs between the type of disturbance that occurs when a high intensity crown fire occurs versus a treatments meant to emulate a low intensity surface fire. What is considered destructive is a matter of perspective.

Thinning is conducted at various levels depending on the forest type, aspect, and slope. The amount of change to achieve the desired density for forest health depends on the pre-treatment density. That is, some stands are excessively dense and require more thinning than stands that are closer to the desired condition. Opening the forest so that light reaches the forest floor allows rather than prevents understory vegetation growth. Not only does this enrich understory growth, but results in greater food sources and cover for rodents and other ground mammals (see biology sections) that in turn can benefit spotted owl and goshawks.

PC 455: The Forest Service should conduct logging during winter to reduce impacts.

Response: The Forest Service conducts most operations during the dry time of the summer, which permits fuller access to the forest stands and the ability to treat all surface fuels. In winter months, access is somewhat problematic and the surface fuels beneath the snow are inaccessible. Winter operations policy requires sufficient packed snow depths that are not predictable in some winters or location, especially on the east shore. Operations in wetter areas can become feasible in the winter when these areas freeze over. However, timing and duration of suitable operations become further complicated with the mobilization of equipment to accomplish the treatment needed.

PC 456: The Forest Service should allow more public use of thinned trees.

Response: Agree. However, this will depend on location of trees thinned, size of thinned trees, amount of trees to be thinned, and ability of the public to safely remove the thinned trees without damaging resources. In some instances a free use permit can be obtained to assist the Forest Service in treating forest stands adjacent to private property and in other cases a permit with qualifications is required.

PC 457: The Forest Service should consider how their literature citations for vegetation management are applied.

Sample Comment: "*The EIS Does Not Discuss Literature that Concludes Harvesting Large Trees is Unnecessary to Increase Tree Vigor. The Design Criteria's Standards and Guidelines contradict the rationale and conclusions of numerous scientific studies conducted in California forests regarding stand density and tree vigor. This is not a minor issue, as large trees are significantly more scarce on the Sierra Nevadan landscape than they were historically due to past logging practices (McKelvey and Johnston 1992, Franklin and Fites-Kauffman 1996) and large live and dead trees are critical habitat components for both California Spotted Owls and Black-backed Woodpeckers. Guideline SG33 of the Design Criteria (Volume II on page 96) states that trees 76 cm can be logged if "[s]hade tolerant trees larger than [76 cm] are increasing the rate of mortality or out-competing preferred species…Changes in SEZ conditions have allowed conifer encroachment to persist long enough to develop trees larger than [76 cm]…, [and] when creating early seral openings to accomplish vegetation desired conditions." Several scientific studies counter the premise that logging large trees is necessary for reducing inter-tree competition. North et al. (2009 on pages 23–24) noted that "clusters of intermediate to large trees (i.e.,[48 cm] diameter…) are sometimes*

marked for thinning with the belief that they are overstocked and thinning would reduce moisture stress. Some evidence, however, suggests these groups of large trees may not be moisture stressed by within-group competition because they have deep roots that can access more reliable water sources….” In a long-term study of the large-tree component in treated versus untreated late-seral ponderosa pine forests in the Sierra Nevada, Ritchie et al. (2008) reported lower mortality of large trees60 cm in stands where no trees >50 cm had been harvested. These studies should be analyzed and considered with respect to Guideline SG33. Overall, the premise that logging is necessary to create early seral stage habitat, reduce fire risk, increase individual tree vigor, and “restore” forests after fire, must be weighed against the extremely adverse effects of logging to forest ecosystems, disruption of natural ecosystem processes, and degradation of habitat for Spotted Owls, Black-backed Woodpeckers, and other native species inhabiting the LTBMU. Any logging project, no matter how small the trees to be harvested, will adversely impact forest ecosystems through soil disturbance and compaction, disruption of nutrient cycling, damage to residual trees, and enhancement of root pathogens (Stephens and Moghaddas 2005). These adverse impacts must be properly disclosed and analyzed in a revised EIS.”

Response:

McKelvey, K. S., and J. D. Johnston. 1992. Historical perspectives on forests of the Sierra Nevada and the Transverse Ranges of Southern California: Forest conditions at the turn of the century. In The California spotted owl: a technical assessment of its current status, technical coordination by J. Verner, K. S. McKelvey, B. R. Noon, R. J. Gutierrez, G. I. Gould Jr., and T. W. Beck, 225–46. General Technical Report GTR-PSW-133. Albany, CA: U.S. Forest Service, Pacific Southwest Research Station.

The reference to large trees is somewhat biased in the Sudworth inventory (1900) cited in the document, because Sudworth didn’t measure any trees less than 11 inches diameter and many of the areas without large trees were heavily grazed by sheep. There is no question that there were a greater preponderance of larger trees historically, i.e. prior to wide-scale logging to support the mining at that time. They also do not mention forest health or tree vigor in relation to the historic structure. Also, there is general agreement that due to burning by sheep herders and Native Americans, the forest was not considered pristine.

McKelvey et al. An Overview of Fire in the Sierra Nevada. 1996. In Sierra Nevada Ecosystem Project: Final report to Congress, vol. II, Assessments and scientific basis for management options. Davis: University of California, Centers for Water and Wildland Resources, 1996.

Additional Research by McKelvey indicates that the forest that came back following the Comstock logging was of greater density and greater risk of fire that would be uncharacteristic of the historic fire regime. He states that in the 20th century, the areal extent of fire was greatly reduced. This reduction in fire activity, coupled with the selective harvest of many large pines, produced forests which today are denser, with generally smaller trees, and have higher proportions of white fir and incense cedar than

were present historically. The primary conclusion of this paper is that extensive modification of forest structure will be necessary to minimize severe fires in the future.

Franklin and Fites-Kauffman. 1996. Assessment of Late-Successional Forests of the Sierra Nevada. 1996. In Sierra Nevada Ecosystem Project: Final report to Congress, vol. II, Assessments and scientific basis for management options. Davis: University of California, Centers for Water and Wildland Resources, 1996.

This paper examines the current conditions of forest in terms of large tree metrics and as habitat for Late Seral/Old Growth (LSOG) associated species. There is no mention of "vigor" in this assessment. However, the authors suggest that if maintenance of high-quality LS/OG forest ecosystems is adopted as public policy, a program needs to be initiated that will 1) maintain existing high-quality LS/OG forests; 2) restore such conditions where existing LS/OG forests are insufficient to achieve objectives; 3) restore fire as an important process and to reduce risks of catastrophic loss; and 4) restore structural complexity in the matrix. In addition, this assessment relates specific qualitative characteristics that have habitat niches, e.g. use of large snags by particular species within the context of other LSOG characteristics.

The Revised Forest Plan seeks to enhance existing late seral structural classes and the connections of those stands that are in close proximity to one another or to other protected habitats. The S&G 33 has since been refined to better explain the exceptions under which large trees would be cut.

North, Malcolm; Stine, Peter; O'Hara, Kevin; Zielinski, William; Stephens, Scott. 2009. An ecosystem management strategy for Sierran mixed-conifer forests. Gen. Tech. Rep. PSW-GTR-220. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 49 p.

Although I agree that large trees, as the author suggests can be found in groups and the thinning may not necessarily be due to water stress, the authors do go on to say in the same paragraph cited by the commenter that: These groups, however, can be at risk if intermediate and small trees grow within the large tree groups. Thinning these small and intermediate trees will reduce fire laddering.

Ritchie, M. W., B. M. Wing, and T. A. Hamilton. 2008. Stability of the large tree component in treated and untreated late-seral interior ponderosa pine stands. Canadian Journal of Forest Resources, 38: 919-923.

The conclusion of this paper is that untreated stands had elevated levels of mortality of large trees where smaller trees had grown into the understory as compared to treated stands that were thinned. Thus, the question still remains as to what level of thinning would produce the most stable and resilient stands of late seral ponderosa pine. Comparisons in this study are based on two prescriptions: overstory removal and thin from below (retaining all trees greater than 20" DBH with even spacing). In addition, the reference condition the authors are relating to are large trees that are widely spaced, a current condition that is very rare in the interior west.

This reference would appear to support the updated S&G 33 in those instances where stands with trees that become much larger than the ones studied in Ritchie et al (2008). Thinning from below that includes some level of thinning in the co-dominant and dominant positions with the aim of a stable and resilient stand of large trees is an important goal in meeting the desired conditions for forest vegetation, fire & fuels and wildlife habitat.

Stephens, S. L. and J. J. Moghaddas. 2005. Fuel treatment effects on snags and coarse woody debris in a Sierra Nevada mixed conifer forest. Forest Ecology and Management, 214: 53–64

Stephens and Moghaddas (2005) conclude that long-term forest management goals should include the reintroduction of fire as an ecosystem process and creation of forest structures that can incorporate wildfire without tree mortality outside a desired range.

Stephens, S.L., and J. J. Moghaddas. 2005. Experimental fuel treatment impacts on forest structure, potential fire behavior, and predicted tree mortality in a mixed conifer forest. Forest Ecology and Management 215: 21–36.

This paper also supports the goal of treatments aimed at restoring forest structure and reintroducing fire into the ecosystem. There is no mention of the deleterious effects the commenter is associating with neither this article nor the article above.

Stephens, S.L., and J. J. Moghaddas. 2005a. Silvicultural and reserve impact on potential fire behaviour and forest conservation: twenty-five years' experience from Sierra Nevada Mixed conifer forest. Biol. Conserv. 125, 369–379

Alternative views toward restoring fire-excluded forest have been characterized as a debate between ''process restorationists'' – who argue that restoration of key ecological processes, especially fire, will eventually restore natural ecological conditions, and ''structural restorationists'' – who argue that forest structure and fuels must be restored before reintroduction of fire. One caveat to this argument is that where the restoration occurs could influence how the restoration is accomplished. That is, the areas surrounding communities would likely require the structural argument, given the risk of catastrophic fire to the community if fire alone were to be allowed to restore the ecosystem.

The overall conclusion of this study as relates to the objectives analyzed in the EIS is that thinning from below, and old-growth and young-growth reserves were more effective at reducing predicted mortality in trees up to 51 cm DBH when compared with other treatments. There is no mention of the adverse impacts suggested by the commenter.

PC 458: The Forest Service must disclose impacts from logging.

Sample Comment: *"Regardless, it should be explicitly stated that there might be situations where some level of environmental impact will occur due to the nature of the activity needed to accomplish the vegetation management actions needed to reduce the risk of catastrophic wildfire. The impact may occur, even with prescriptions that include*

best practices, as there may limitations on methods that can be used due to worker safety concerns or feasibility issues. The LTBMU should not be constrained by a Plan and supporting EIS that indicates that regardless of what is needed to address fuel loads, there will not be any environmental impacts."

Response: Effects of forest vegetation treatments are disclosed in multiple sections of the FEIS. The FEIS does not claim there would be no impacts; rather it states that there would be no significant impacts as defined by NEPA regulations.

PC 459: The Forest Service should manage the forest to produce lumber.

Response: Appendix G (Volume III) is the Timber Suitability analysis, which determined that there are no lands suitable for timber production in the Tahoe Basin.

Determination of where wood is shipped or how the wood is processed is not up to FS staff, but the contractor who bids on the project/contract. Some of the wood removed is suitable for processing into lumber, but there are no lumber mills within 120 mile radius of Lake Tahoe. This makes it difficult for contractors to offset the cost of treatment as the cost of transportation alone is often more than the value of logs on a truck. Values of the main timber species in the Sierra Nevadas have been in decline for more than 20 years and are near all-time lows.

PC 465: The Forest Service should expand opportunities for non-commercial fuelwood collection.

Response: Agree. We would prefer more wood become available to fuelwood gatherers than be burned in piles. Urban lots are often the most accessible areas to fuelwood cutters and treatments often do leave tree lengths (bucked up) for this activity. In project areas where fuel piles are created near access points (roads), fuelwood cutters can also remove useable wood from these piles and re-pile any remaining wood.

Currently, fuelwood is offered to the public and the permits do not sell out in any given year. Some sources of fuelwood are behind closed gates for resource protection and public safety (during operations). Some of the fuelwood generated by our management treatment is decked in large piles at a landing or in the woods but allowing the public to climb on and cut firewood from these piles poses an unacceptable safety hazard. These piles are sometime sold under a commercial fuelwood permit to contractors with appropriate equipment to process these piles safely.

We have used local 8a contractors to remove fuelwood from small areas. These are licensed operators who can meet all contractual obligations (administrative, operational, financial, etc.).

PC 434: The Forest Service should protect and enhance vegetation species diversity.

Response: Agree. None of our alternatives would jeopardize vegetation species diversity. In some instances there are threats to high elevation tree species, e.g. Western white pine and whitebark pine from an exotic pathogen called the white pine blister rust,

which weakens and kills the 5-needle pines in the basin. Efforts to conserve these tree species have been underway for more than a decade, including research, monitoring, and testing for and planting of genetically resistant trees. The search for candidate trees and the collection of seed from these trees for testing has been accomplished through cooperative agreements with the Sugar Pine Foundation and the R5 Tree Nursery in Placerville, CA for this purpose.

PC 435: Plan should include a more clearly defined and comprehensive restoration strategy for sugar pine, western white pine, and whitebark pine.

Response: See response to PC 434.

Agree. Separate from the forest plan is the recently signed Sugar Pine Action Plan document for the LTBMU. This action plan outlines means by which sugar pine can be conserved within their seed zones and within the Basin.

Blister rust resistant sugar pines are currently included when deemed appropriate in reforestation efforts, including Penny Pines plantations around the Basin.

Aside from the Sugar Pine Action Plan, the strategies in the Forest Plan favor the five-needle pine species, including rust resistant stock for planting when appropriate. The Forest Silviculturist is responsible for prescribing reforestation as needed on a project-specific basis.

PC 436: The Forest Service should list white pine blister rust as a terrestrial invasive species and should analyze its effects.

Response: As an introduced pathogen that is having detrimental effects on 5-needle pines, we are not sure how such a designation would improve our ability to analyze its effects. Through research and monitoring, we have a good understanding of its rate of spread, extent, and incidence of mortality. In addition we have the Sugar Pine Management Plan for the LTBMU that includes all white pines and tiers to the regional effort through the Placerville Nursery where potentially rust resistant trees can be tested. The Revised Forest Plan includes Strategies related to WPBR.

PC 440: The Forest Service should provide a more specific definition for hazard trees and clarify what level of risk would justify hazard tree removal.

Response: Agree. We have added a more specific explanation of what constitutes a hazard tree in the Glossary – Appendix M of the FEIS. Essentially, a tree identified as a hazard has 1) a high likelihood of failure (i.e. falling tree or portion thereof), and 2) a target that could result in harm to people or property. Not all dead trees for example along a remote seldom used trail would need to be cut/mitigated as dead trees are a feature in the forest. However, a high incidence of dead trees along any trail could prompt some level of hazard tree mitigation.

Specific hazard tree direction for USFS Region 5 comes from: Angwin, P., D. Cluck, P. Zambino, B. Oblinger and W. Woodruff. 2012. Hazard Tree Guidelines for Forest

Service Facilities and Roads in the Pacific Southwest Region. FHP-PSW-April 2012 Report RO-12-01.

PC 443: The Forest Service should evaluate any vegetation treatments so that they do not unintentionally harm wildlife habitat, watersheds, soils or other natural resources.

Response: Agree. Typically maintaining or improving wildlife habitat is part of the purpose and need of our projects, even hazardous fuels reduction projects. Potential effects to all resources are evaluated during project specific analysis and appropriate resource protection measures and best management practices are incorporated in the project design to ensure protection of natural resources.

PC 444: The Forest Service should emphasize restoration of native vegetation communities and habitats.

Response: Agree. Lack of forest structural diversity is the greatest threat to the sustainability of the forest around the basin. Restoring this on a landscape scale will emphasize the importance of habitats that will change as a result of restoration management activities.

Restoring some early seral forest from mid seral will allow for natural re-vegetation of pioneer plant communities that are currently at lower than historic levels.

PC 445: The Forest Service should include information on effectiveness of current vegetation management.

There have been several studies completed on the effectiveness of the pre-fire fuels reduction treatments through which the Angora fire burned. These studies all indicate that when fully implemented the treatments altered fire behavior as predicted. These same studies indicate that the fire burning through untreated areas also burned as predicted, a stand replacing crown fire.

The unit has also conducted demonstration projects to determine whether or not mechanized treatments within stream zones can be done without permanent damage. The results indicated that such treatments conducted during the dry season can be done effectively and with little effect to soils or re-vegetation.

Over many years, projects have utilized best management practices to minimize impacts to natural resources during vegetation management activities. The results of evaluating the effectiveness of these are conclusive that there is minimal effect to the resources.

Following an adaptive management strategy the vegetation treatments have become more effective at meeting the purpose and need in each successive project. Managers on the LTBMU have also benefitted from research conducted in the Basin with emphasis on vegetation management activities related to fuels reduction, soils, wildlife habitat, air, and water quality. Some of these are cited in the EIS.

One of the goals in the Revised Forest Plan seeks to restore forest structure at the landscape level. Initiating such restoration treatments has not been done before and results will be assessed over time to determine whether the treatments are truly on a restoration trajectory. The short 20 year timeframe of the forest plan is very small in comparison to the timeframe for restoration to achieve the desired conditions, which could be more than a century.

PC 448: The Forest Service should review their assumptions about historic forest conditions.

Sample Comment: *"…historic forests were far denser than previously assumed, had far more smaller trees and more fir relative to pine, and were largely dominated by mixed-severity and high-severity fire, not low-severity fire (Hessburg et al. 2007, Baker 2012, Williams and Baker 2012a, Williams and Baker 2012b)."*

Response: Partially agree. Not all forest types were characterized by large widely spaced trees. This was more characteristic in the Jeffrey pine and some mixed conifer type stands. The exact conditions would have varied at each stage of stand development with varying degrees of sizes, density, mortality, surface fuels and diversity. Thus, we do not assume all major forest types would have been late seral open with frequent low intensity fire. Some data indicate more open mid to late seral stages may not have fully accounted for the role of aboriginal fires, which are noted in the forest plan. The current conditions, though not limited to the Lake Tahoe Basin, have become considerably more dense and unbalanced with the majority of ages representative of a single cohort that originated from Comstock era logging. Relative to numerous basin-specific studies, this condition is what is novel. At higher elevations, the area near Angora ridge was characterized by periodic stand replacing fire every couple of hundred years.

PC 449: The Forest Service should reconsider assumptions about resiliency based on recent research.

Sample Comment: "*The DEIS (p. 3-232) describes forest resiliency as the ability of the system to return from major natural disturbance, such as higher-severity fire. However, the DEIS fails to disclose the fact that recent research finds generally vigorous natural conifer regeneration in high-severity fire patches—even in large high-severity fire patches—indicating high ecosystem resilience, contrary to the assumptions of the DEIS (Donato et al. 2006, Shatford et al. 2007, Donato et al. 2009, Collins et al. 2011)."*

Response: Agree. More is coming from the climate change literature. When it becomes more available and applicable, we will consider alteration to our current planned guidance.

Wider spacing would be inherently more resilient to fire in pine types. Also, there is more contemporary research that supports the desired conditions for the major forest types in the Basin, e.g. North et al 2012 on fire history of riparian zones. A fundamental fact about drought tolerance is also part of resiliency. That is, trees require sufficient water and nutrients to grow and that the greater the space available to capture these

resources and grow, the better capable of fending off bark beetle attacks and maintaining vigor.

In this EIS, resiliency assumptions are more generally applied across the basin. Specific instances of disturbance, e.g. fire, would be considered on a site-specific basis and project design would incorporate research available at that time. Assumptions about resiliency are based in part on historic conditions as a stepping stone towards what the disturbance regimes will be in the future and in part on fundamental ecological and forestry principles related to fire behavior and water cycles.

Donato, D. C., J. B. Fontaine, J. L. Campbell, W. D. Robinson, J. B. Kauffman, and B. E. Law. 2006. Post-Wildfire Logging Hinders Regeneration and Increases Fire Risk. www.sciencexpress.org / 5 January 2006 / Page 1 / 10.1126/science.1122855.

This brief does not explain the resilience of post-fire forest. It only portrays a post-fire logging activity without putting into context the broader goals of post-fire restoration. The EIS and Forest Plan Revision consider more elements to be addressed by an IDT following wildfire.

Shatford, J.P.A., D.E. Hibbs, and K.J. Puettmann. 2007. Conifer Regeneration after Forest Fire in the Klamath-Siskiyous: How Much, How Soon? Journal of Forestry, April/May 2007: 139-146.

This article refers to natural pine regeneration following stand replacing fire and that it can take very long periods of time and will be highly variable. They conclude that even with information from 20 years of forest dynamics, successional development can not be precisely predicted for specific locations. This highlights the challenge to integrate a wide range of forest conditions across a landscape to meet the diverse set of goals and needs imposed by society

Donato, D.C., Fontaine, J.B., Campbell, J.L., Robinson, W.D., Kauffman, J.B. and Law, B.E. 2009. Conifer regeneration in stand-replacement portions of a large mixed-severity wildfire in the Klamath-Siskiyou Mountains. Can. J. For. Res. 39, 823–838.

The lighter seed and more vigorous growth of Douglas fir in this post-fire situation are quite different from heavier Jeffrey pine seed and its slower initial growth. Given the large area burned, the mosaic of live trees across the burn area, the mesic growing conditions, and the distances traveled by Douglas fir seed, we would expect to see more vigorous establishment in that area for that forest type. Resilience in this case stems from the adaptation of Douglas fir to seed in after fire, since it does not resist fire very well. In the case of Jeffrey pine, its strategy is to resist fire and to regenerate from seed *in situ*.

Collins, B. M., R. G. Everett, and S. L. Stephens. 2011. Impacts of fire exclusion and recent managed fire on forest structure in old growth Sierra Nevada mixed-conifer forests. Ecosphere 2(4):art51.

The authors note that their results are based on forests that have not undergone the extensive harvesting that has occurred throughout much of the Sierra Nevada, including the Lake Tahoe Basin. Given that the increases in density of 30.5 to 61.0 cm dbh trees far outweighs that for the larger size classes, and that there are concerns over the numbers of large trees where extensive harvesting has taken place, restoration based projects in mixed conifer forests similar to those studied here are likely justified in focusing on retaining trees .61.0 cm dbh. This would appear to support the premise of forest restoration in the EIS/Forest Plan Revision.

As noted previously, exceptions to removing trees larger than 30 inches DBH have been clarified to reflect the situations in which they would be removed.

PC 450: The Forest Service should explain why removing trees is necessary for aspen restoration.

Response: Agree. We can further explain aspen growth requirements. Many of the aspen stands that were inventoried throughout the Basin exhibit severe conifer encroachment into the aspen and in many instances are overtopping them, causing aspen mortality. Given that aspen is clonal in its reproduction (reproduces from root clumps), the stands that exist are all that we have. Therefore, we aim to restore aspen as part of other projects, incorporating such treatments into overall project objectives.

Aspen require open growing conditions as they are shade-intolerant. They are able to take advantage of openings in the forest that result from fire or other mortality event by rapid growth to capture the site. However, shade-tolerant species (fir) and other shade-intolerant species (pines), in the absence of fire, eventually out-compete aspen.

PC 451: The Forest Service needs to clarify the assumptions about tree mortality from beetles and the rationale for the need to reduce stand densities.

Response: The assumptions are nothing new to forestry. These are well supported in the literature. The question is really about whether or not bark beetle outbreaks are acceptable or not. Given the extensiveness of overly dense forest conditions, and the objectives for scenic quality in the Basin, beetle outbreaks and the tremendous tree mortality associated with them are not acceptable. Therefore, thinning the forest stands below maximum stand density index for each of the major forest types on a periodic basis will lower the risk of outbreaks and improve resiliency of the stands to withstand natural levels of beetle attack.

In the FEIS the difference between alternatives B, C and E is the amount of thinning per acre (which is highest in Alternative C), not the number of acres treated over time.

PC 452: Plan should clarify how the Plan considers the ecological role of beetles, disease, and fire in forest ecology.

Response: The plan seeks to reduce beetle risk and fire effects that are outside of the natural and/or historic ranges of variability. Objectives aim to reduce forest stand

densities from conditions that do not represent natural conditions and would result in extraordinary outbreaks and catastrophic fire.

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

PC 487: The Forest Service should consider carbon sequestration in planning forest management activities.

Response: Recent research can be conflicting over whether utilization of woody biomass in energy producing facilities is a net carbon offset or not. As research conflicts are resolved we expect Forest Service policy regarding carbon sequestration in planning to become more specific.

PC 502: The Forest Service should clarify desired conditions for vegetation.

Response: DC statements for forest structure, composition and health are broad and reflect conditions that may take a century or more to achieve. Forest changes, given the long length of time needed for trees to grow to large sizes, mean that as managers we cannot correct the issues of forest sustainability and health in 15-20 years.

The purpose of the vegetation DCs is to establish the goal towards which we intend to establish a long-term trajectory.

PC 503: The Forest Service should utilize thinning treatments that attempt to mimic natural processes.

Response: Agree. The prescribed treatments are designed as surrogates for what natural processes would alter within the forest. We use an ecosystem-based approach to thinning that is reflective of bark beetle caused mortality and low intensity prescribed fire that reflects the role of fire as well.

There is a study site at the Blodgett Forest in Georgetown, CA is part of a national study called the Fire & Fire Surrogate Study, to understand how management treatments can best mimic natural processes in different forest ecosystems across the country. The prescribed treatments in the LTBMU have benefited from these studies at the Blodgett Forest.

PC 505: The Forest Service should limit fuels reduction to understory removal.

Response: Partly agree that the reduction of surface fuels and small understory, shade-tolerant trees and shrubs are needed to alter fire behavior in and around communities. However, aerial continuity of canopy fuels is also part of the equation when developing

treatments. Canopy fires generally need some surface fuels to in order to continue burning in the crowns, however, canopy fires that enter a stand with treated surface fuels can continue to burn in the canopy when those fuels are high in density.

In addition to fuels reduction to alter fire behavior, canopy thinning also is prescribed to improve resiliency of residual trees to bark beetle attack and overall vigor. A complete set of treatments includes the use of prescribed fire once all other treatments have been conducted. The prescribed fire further reduces the fuel loading and provides benefits to the residual vegetation including a more receptive seed bed for understory re-vegetation.

Interpretive Services, Conservation Education, and Visitor Services

PC 165: Forest Service should use environmental education and interpretation to instill conservation values in visitors and thus reduce impacts.

Response: All alternatives propose using environmental education and interpretation to communicate conservation values to the public. This remains an important mission for the LTBMU. As stated in the Revised Forest Plan - Part 1 Vision Section for Interpretation: "The mission of the Interpretive Services program is to provide support and inspire high quality interpretation that instills respect and appreciation for the natural and cultural heritage of public and private lands and foster their protection and stewardship through time."

PC 166: Forest Service should require recreation special use permittees to provide environmental education and interpretation.

Response: Thank you for your suggestion. Currently, the Forest Service does not have a regulation in place that requires special use permit holders to provide environmental education and interpretation. The LTBMU, however, encourages permit holders to offer environmental education and interpretation services.

Lands Program

PC 164: The Forest Service should transfer management of NFS lands to the States and counties.

Response: The Forest Service is responsible for management of all NFS lands. However, the Forest Service also considers transfer of NFS lands that will reduce fragmentation of public lands, increase public access to NFS lands and Lake Tahoe shoreline, and protect important natural and heritage resources.

PC 413: The Forest Service should consolidate its ownership of urban subdivision lots.

Response: The consolidation of the ownership of urban lots is emphasized in the plan, especially with Nevada State lands and the California Tahoe Conservancy. One of the specific lands strategies of the Revised Forest Plan states, "Seek opportunities for land

adjustments with State and Local governments that consolidate ownership and improve management of urban lots". In addition a second lands strategy continues the option of transferring urban lots to the grantees in erosion control projects when the improvements encumber more than 25% of the lot. However, in the FEIS, in section 3.4.13.2 under Land Acquisition and Land Adjustment Program, it is explained that land adjustments of urban lots with Nevada State Lands and CTC are preferred as they are both land management agencies with similar management objectives for their land in the Lake Tahoe Basin, and that such land adjustments offer the best opportunity to improve overall management and present the least concern for future monitoring of the deed restriction required by the Santini/Burton Act. Nothing in the plan or FEIS precludes continuing transfers to local governments. As stated in the same section of the FEIS, discussions on urban lot land adjustments are active and ongoing. Although the Santini/Burton Act did authorize transfers of lands acquired under the Act to local and state governments, it did not authorize the transfer to private ownership. This plan cannot create the authority to do so.

PC 429: The Forest Service should manage lands surrounding Santini-Burton parcels as backcountry.

Sample Comments: "*The Draft Plan provides for preserving the environmental quality and public recreational use of Santini-Burton Urban Forest Parcels (SB Parcels) with management emphasis on protecting watershed conditions and community open space. Such classification is closely related to backcountry. Forest Service lands surrounding SB Parcels should be presumed as meriting backcountry designation unless other factors predominate."*

Response: The vast majority of Santini/Burton Parcels are small urban subdivision lots in developed subdivisions. They are usually adjacent to developed residential properties. They are in designated urban areas, and do not meet any of the criteria for backcountry designation. In the Revised Forest Plan, Program Strategy for Santini/Burton Acquired Lands/Urban Forest Parcels, it states, "The Forest Service manages urban forest parcels as undeveloped open space for the purpose of preserving the hydrologic function of sensitive lands and conserving natural forest conditions within the urban setting". The first strategy listed on the same page states, "Manage urban forest as undeveloped parcels that provide open space and dispersed recreation opportunity". So, although the lots are protected, they do not have wildland or backcounty characteristics and require more intense management due to all of the adjacent private properties.

There are larger properties that were acquired under the Santini/Burton Act that are not in the urban areas, such as High Meadows. Under Lands Standards and Guidelines in the Forest Plan, it states, "For Planning purposes, acquired properties shall be included in the management area in which they are located". Thus, if Santini/Burton properties are located in an area with a backcountry designation, they will be managed as such.

In the Management Areas Section of the Revised Forest Plan the Santini-Burton and Urban Forest Parcels sections have been updated to explain the differences in

management between these lands. Lands in the urban areas would be managed differently than those farther into the forest.

PC 462: The Forest Service should work to resolve conflicts between special use permittees using the same lands.

Sample Comment: *"Angel's Roost and East Peak should be removed from the list of communication sites shown in Map 8 of the Draft Plan."*

Response: The referenced map is of the existing designated communication sites on the LTBMU at the time of the Revised Forest Plan. In accordance with the FS Handbook, FSH 2709.11-90.3.1, Communication sites must be designated in a National Environmental Policy Act (NEPA) decision document. Angel's Roost and East Peak have been designated communications sites since at least the time of the 1988 Forest Plan. The two sites were designated as their locations were needed to provide communication services to the South Shore area for the public safety radio net, the Forest Service radio system, private two-way radio and Heavenly Ski Area's operations. As long as these two sites are used for communication purposes, they cannot be undesignated.

The same FS Handbook at FSH 2709.11-30.3.2. states: All designated communication sites must have a current communication site management plan that is consistent with the applicable LMP or with any separate NEPA Decision Document. The communication site management plan must provide site specific direction and guidance to Forest Service personnel, the communications site users, and the public. This direction is intended to ensure that the needs of all users are considered and avoid conflicts between their uses. There is a current site management plan for Angel's Roost that limits additional uses of the site to those that are consistent with the use of the area for a ski area. In addition, when the current cellular provider was authorized at Angel's Roost, a NEPA decision document determined that the new use was consistent with the ski area use. A new communication site management plan is in process for East Peak that will also protect the interests of Heavenly Mountain Resort.

Recreation

PC 323: The Forest Service should expand recreation infrastructure and opportunities as needed and as budget allows.

Response: Some expansion of infrastructure is allowed under each of the alternatives. The FEIS analyzes five alternatives, each of which provides for a specific degree of construction, site modification, redevelopment, and/or decommissioning of developed recreation site infrastructure. Alternatives A, B, C, and E allow for a range of development between 5 and 15 percent in developed recreation opportunities and facilities. In comparison, Alternative D allows for a potential 15 percent decrease in developed recreation infrastructure in response to resource restoration objectives. All alternatives propose to provide a wide variety of recreation opportunities by focusing on

deferred maintenance or modification of existing facilities to help achieve accessibility and sustainability of recreation opportunities in the Lake Tahoe Basin. Future site modification and/or redevelopment under any of the alternatives is subject to future funding levels.

PC 95: The Forest Service should maintain a mix of recreation opportunities while protecting resources.

Response: The USFS manages NFS Lands for multiple uses. In some cases uses are in conflict so specific guidelines are put in place to provide for these multiple uses while protecting and conserving habitat and species. The Revised Forest Plan, consistent with all alternatives, has multiple Standards and Guidelines in place that are intended to protect natural resources while providing both developed and dispersed recreation opportunities.

PC 41: The Forest Service should carefully protect the few remaining old growth forests, large trees and streamside zones while not limiting the current use and access.

Response: Perpetuating and promoting existing late seral stages is a forest strategy as stated in the Revised Forest Plan Section 2.1 - Forest Vegetation, Fuels, and Fire Management Program Strategy: "Perpetuate and promote existing late seral stages in each project area and throughout the broader landscape , with primary emphasis on protecting/enhancing late seral depended wildlife habitat".

The Forest Service also encourages continued and improved access to public lands as described in Chapter 1 of the Revised Forest Plan, Public Access DC89: "Encourage additional access where lawful and feasible to high-quality natural areas and shorezones consistent with desired resource conditions." Also in Section 2.2 Social and Economic Sustainability, the Access Strategy section discusses the importance to "Coordinate management activities and projects to minimize impacts to public access, and recreational experience".

PC 144: The Forest Service should address human and dog waste at Kiva beach.

Response: The Forest Plan is strategic in nature and does not attempt to prescribe detailed management direction to cover every possible situation. It does not contain specific project and activity decisions; these must be accomplished in a separate, project-level decision and are subject to environmental analysis and public scoping under the National Environmental Policy Act (NEPA).

The Forest Service encourages responsible dog owners to pick up after their pets. Proper disposal of human and dog waste is enforced under 36 CFR 261.11(d). In support of that, flush toilets and dog waste stations are provided at the Kiva Picnic Area and portable toilets and dog waste stations are provided at Tallac Point.

PC 182: The Forest Service should utilize additional fees as needed to provide additional staff and maintain access.

PC 475: The Forest Service should implement a parking pass program if fees are charged for new parking areas.

PC 471: The Forest Service should not charge fees for parking.

Sample Comment: *"Additional fees to keep these areas open and to cover the costs of additional Rangers and Sheriffs is a welcome trade off. As long as these funds are not used against us and raided by others!"*

Response: Decisions regarding the establishment and allocation of fees on NFS lands are outside the scope of this planning effort. The authority to charge recreation-related fees on NFS lands is delegated to the U.S. Forest Service by Congress. In addition, existing regulation, law, and policy determines how the Forest Service may allocate fees collected on NFS lands. The delivery of recreation programs (e.g., access and facility upkeep) as well as the ability to increase additional law enforcement patrols is dependent on future funding levels.

PC 45: The Forest Service should designate additional lands restricted to non-motorized use.

Additional lands restricted to non-motorized use are evaluated in Alternatives C, D, and E. If wilderness were recommended and designated by Congress, areas proposed for wilderness in Alternatives C and D would be restricted to non-motorized use year-round. Alternative E, the FEIS Preferred Alternative adds 3,800 acres to the Backcountry Management Area; while winter motorized use would still be allowed there, summer motorized use would be prohibited.

PC 44: Motorized and non-motorized uses should be separated.

Sample Comment: "The plan should commit to creating substantial areas which are closed to motor vehicles summer and winter so that these areas can be enjoyed by hikers and cross country skiers"

Response: Motorized and non-motorized uses are presently separated in many areas on the LTBMU. While all areas on the LTBMU are open to non-motorized recreation (e.g., cross-country skiing), OSVs are restricted to designated areas (52% of LTBMU lands). Summer motorized use is limited to one area (the "Sandpit") and to designated routes.

PC 84: The Forest Service should prevent "overuse" of East Shore beaches that degrades the environment and experience.

Response: Strategies to prevent impacts to natural resources from recreation activities are present in all Alternatives. The Revised Forest Plan Part 2 - Strategies, includes the following Public Access strategy – "Manage recreation activities to avoid or mitigate environmental degradation in sensitive environments to ensure continued access".

In an effort to prevent environmental degradation of East Shore Beaches, the Forest Service has provided parking lots, trails, toilets, and trash bins, and facility maintenance. Within the past ten years, new toilet units have been installed at Secret Cove and Logan Shoals, new bear proof trash bins have replaced all open trash cans, and the trail system has been upgraded to improve pedestrian circulation and to minimize soil erosion. These issues will continue to be addressed at the project level.

PC 95: The Forest Service should maintain a mix of recreation opportunities while protecting resources.

Response: The FEIS analyzes a range of alternatives, each of which provides for a mix of recreation opportunities while protecting resources with standards and guidelines in the Revised Forest Plan. In the Preferred Alternative (Alternative E), this objective is supported by DC 84 in Section 1.2. DC 84 specifically states, "A spectrum of high quality recreational opportunities are provided, while Lake Tahoe Basin's natural setting as an outstanding recreation destination is maintained." In addition to this Desired Condition, there are numerous standards and guidelines as well as laws, regulations and policies which support this concept.

PC 161: The Forest Service should make a priority of providing public access.

Response: Providing public access is one of our highest priorities. At the same time one of our biggest challenges is to provide opportunities to each user group. The FEIS analyzes a range of alternatives, each of which provides for a mix of recreation opportunities while maintaining public access. Under the Preferred Alternative (Alternative E), the Forest Service encourages continued and improved access to public lands as described in Part 1, DC 89: "Encourage additional access where lawful and feasible to high-quality natural areas and shorezones consistent with desired resource conditions." In addition, Section 2.2 of the Revised Forest Plan, Social and Economic Sustainability, discusses the importance to " Coordinate management activities and projects to minimize impacts to public access, and recreational experience."

PC 163: The Forest Service should provide a range of recreation opportunities including motorized.

Response: The FEIS analyzes a range of alternatives, each of which provides for a mix of recreation opportunities. All alternatives provide for motorized and non-motorized uses, including hiking, biking, skiing, equestrian use, over snow vehicle use, and off-highway vehicle use.

PC 179: The Forest Service should stop charging fees to use public lands.

Response: The authority to charge recreation-related fees on NFS lands is delegated to the U.S. Forest Service by Congress.

Decisions regarding the establishment of recreation fees on NFS lands are outside the scope of this planning effort.

The Forest Service offers a wide variety of recreation opportunities on the LTBMU that are accessible to the full spectrum of socioeconomic levels, including low-income households. These opportunities include:

- Dispersed camping;
- Dispersed recreation activities such as hiking, mountain biking, and cross-country skiing;
- No or low fee beach and trailhead access; and
- The availability of season passes to popular recreation sites that provide discounts for frequent visitors.

The Revised Forest Plan will continue to support this objective as indicated in DC 84: "A spectrum of high quality recreational opportunities are provided, while Lake Tahoe Basin's natural setting as an outstanding recreation destination is maintained."

PC 273: The Forest Service should consider feasibility of expanding outfitter-guide (fishing) concessions on the Forest.

Response: Outfitter guide special use permits will continue to be issued under all alternatives in the FEIS. New special use permits, including guided fishing services, may be granted in the future. As with any special use authorization, the decision to issue a new permit would be made on a project-level basis and subject to environmental review and public comment under the National Environmental Policy Act (NEPA).

PC 305: The Forest Service should consider the economic benefits of human powered recreation.

PC 306: The Forest Service should consider the value of recreation to the local economy and the community at large.

Response: Socioeconomic resources were analyzed in Chapter 3 of the FEIS. This section has been expanded to include recreation's contribution to the regional economy by the addition of the National Visitor Use Monitoring (NVUM) data as part of the socioeconomic analysis. NVUM data includes human-powered (non-motorized) activities such as hiking, skiing, and biking. By continuing to provide a diversity of recreation opportunities the LTBMU contributes to the overall economic health of the local economy.

PC 312: The Forest Service should allow camping on beaches to accommodate boat users and provide appropriate facilities for overnight use.

Response: In order to protect natural resources in the Basin, dispersed camping opportunities are re-evaluated and adjusted regularly via the forest order process. Strategies for considering undeveloped camping in the future are provided in the Revised Forest Plan, Section 2.2 Recreation Opportunities Strategies "Provide opportunities for general forest undeveloped camping where applicable and where it meets management goals. Periodically review and update the forest camping order based on public health

and safety, fire prevention goals, and resource protection and management capabilities" (e.g. provisions for sanitation, garbage collection, and noise management)."

Decisions regarding the forest camping order are made at the project level and subject to separate environmental review and public scoping under the National Environmental Protection Act (NEPA).

PC 316: The Forest Service should restrict horseback riding.

Response: The decision to restrict equestrian use of trails on the LTBMU is made at the project level and subject to public scoping and separate environmental review under NEPA. At present, the majority of trails on the LTBMU are open to equestrian use; however, the maintenance level and primitive condition of some routes, as well as lack of available stock trailer parking and access at some trailheads limit accessibility to equestrian users on certain trails.

The two special use permit holders who currently offer horseback riding opportunities on NFS lands are subject to additional restrictions per the terms and conditions of their special use permits. These terms and conditions include designation of a system of trails available for use by the permit holder as well as restrictions on season of operation and types of use.

PC 318: The Forest Service should adequately maintain their recreation improvements, and modernize and enhance them as needed.

Response: As described in the FEIS, Section 3.4.19.2, Recreation Development, the LTBMU has focused on eliminating deferred maintenance, modernization, meeting universal accessibility standards, and improving services and the quality of its recreation programs to enhance visitor experience. This trend is likely to continue for the life of the Forest Plan. In addition, Part 2.2 of the Revised Forest Plan identifies achieving ecological, social, and economic sustainability of recreation sites as a key component of the LTBMU recreation program strategy. Alternatives A, B, C, and E provide for varying degrees of additional developed recreation infrastructure, including parking and trails. Alternative D would most likely result in the greatest consolidation of recreation infrastructure as it describes potentially reducing recreation opportunities by up to 15%. Under all alternatives, however, the degree and extent to which these improvements are accomplished (or consolidated) are subject to future funding levels. Please see Section 3.4.1 Access and Travel Management in the FEIS for a discussion on the effects of each alternative on access and parking.

PC 319: The Forest Service should continue to provide diverse recreation opportunities for future generations.

Response: The Forest Service strives to provide diverse recreation opportunities as described in the Revised Forest Plan Desired Conditions and Strategies. Alternatives A, B, C, and E will provide more opportunities to provide diverse recreation opportunities while Alternative D may provide fewer if some recreation sites are removed or reduced in size (See DEIS Chapter 3.4.17 Recreation).

PC 324: The Forest Service should evaluate numbers of quiet recreationists compared to motorized users. Plan should allow for changes and trends and adapt to current needs.

PC 380: The Forest Service should recognize NVUM methodology does not provide an accurate and complete picture of recreation uses.

Sample Comment: *"The Lake Tahoe Basin Forest Plan Revision fails to protect Lake Tahoe and its outstanding natural resources in the winter. The Plan does not address the need to manage snowmobile use and does not plan for winter recreation. I would also encourage you to more closely evaluate the visitor use numbers, and their accuracy. I fear that the USFS is basing management decisions on information that is either outdated or inaccurate. The categories for the NVUM seem to not account for snowshoeing and backcountry skiing, which are highly popular activities and continue to gain in popularity. And please create a feasible and sustainable balance of designated land that creates suitable areas for everyone to enjoy their respective activities."*

Response: The Forest Service monitors use via the National Visitor Use Monitoring (NVUM) survey program (Appendix A); Section 1.4 of the 2010 NVUM Survey discusses the limitations of the survey. While backcountry skiing and snowshoeing are not specific categories, they are accounted for by other categories such as cross-country skiing and Other Non-motorized activities. Here on the LTBMU, the NVUM surveys suggest that motorized and non-motorized recreation uses are very popular. While many commenters have expressed dissatisfaction, according to NVUM the majority of both motorized and non-motorized users have indicated that they are satisfied with their experience. As stated in the Revised Forest Plan Recreation Opportunities Strategy section, "As recreation trends and users change, recreation facilities and opportunities are adapted to provide intended user experience while being compatible with management goals." However, the plan does not divide the use proportionately by number of users.

Section 2.2 of the Revised Forest Plan has been updated to include a strategy that provides for managing recreational user conflicts

PC 325: The Forest Service should manage recreation activities to avoid impacting water quality.

Response: The desired conditions, strategies, objectives, standards, and guidelines for Water Quality are described in the Revised Forest Plan. They apply to all projects and activities and are designed to protect, maintain, and improve watershed health and water quality. Effects to water quality from recreation activities are described in Chapter 3 of the FEIS and are effectively mitigated through the use of BMPs.

PC 326: The Forest Service should continue working to resolve recreation conflicts.

Response: Section 2.2 of the Revised Forest Plan has been updated to express our current strategy for managing recreational user conflicts.

PC 328: The Forest Service should include enhancement of year-round world class recreation opportunities as a goal.

Response: A strategy for addressing future recreation opportunities, which would include year-round uses, has been identified in Section 2.2 of the Revised Forest Plan, "As recreation trends and users change, recreation facilities and opportunities are adapted to provide intended user experience while being compatible with management goals." This strategy is further supported by Desired Conditions. Opportunities to enhance or improve existing recreation facilities and services will be driven by available funding over the life of the Forest Plan.

PC 331: The Forest Service should consider improving access to accommodate growing activities such as paddling.

Response: Maintaining and enhancing public access opportunities to Lake Tahoe shorelines and NFS lands is a primary strategy on the LTBMU (Revised Forest Plan 2.2 Social and Economic Sustainability, Access Strategies).

Decisions on site specific improvements to accommodate paddling and other recreation activities would be accomplished at the project level subject to public scoping and separate environmental review under NEPA.

PC 334: The Forest Service should provide increased recreation opportunities of all types to meet demands.

Sample Comment: *"The LTBMU has a substantial capacity to provide for more motorized (including additional parking), non-motorized, and back country recreation experiences. There is more than ample wilderness and inventoried roadless to assure that LTBMU can meet recreation demand for solitude and related back country experiences."*

Response: The LTBMU offers recreational opportunities for a variety of uses, including motorized, non-motorized and backcountry. The alternatives present various mixes of opportunities. With 5.7 million visitors per year, there are no un-utilized areas to increase opportunities; only trade-offs are available, as presented in the alternatives. None of the alternatives however will be able to meet all future recreation demands during peak use seasons (See EIS Chapter 3 - Recreation). While capacity of individual sites may be increased, the resulting user satisfaction may be decreased.

PC 335: The Forest Service should plan for recreation activities during all seasons and all the recreational purposes that might become available during the lifetime of the plan.

Response: Suitable uses for each of the four management areas have been identified in Table 5 in Part 2 of the Revised Forest Plan. These uses include both summer- and winter-based recreation activities.

Although none of the alternatives analyzed in the FEIS preclude consideration of new or changing recreational uses over the life of the Forest Plan, we cannot predict what new uses might arise over the life of the plan. For example, when the 1988 Plan was

published, mountain biking was a new activity and no one knew how popular it would become.

PC 336: The Forest Service should plan for the increasing visitor use from Nevada.

Response: The FEIS analyzes five alternatives, each of which considered recreation visitor growth trends as discussed in Chapter 3, Section 3.4.19.2. The EIS acknowledges that visitation from our major market areas (200 mile radius from Lake Tahoe) to the Lake Tahoe Basin is projected to increase over the life of the plan (approximately 1.4% annually). Alternatives A, B C and E all provide for varying degrees of expansion in developed recreation opportunities for the Forest Service to respond to this projected increase in demand. In comparison, Alternative D would potentially reduce existing developed recreation infrastructure by up to 15%. None of the alternatives, however, will be able to meet all future recreation demands during our peak use seasons (See EIS Chapter 3.4.17 - Recreation).

PC 345: The Forest Service should prohibit construction of additional piers on NFS lands.

Sample Comment: *"I ask: how do jet skis and power boats on the lake, additional buoys and piers, snowmobile traffic and ATV's assist Lake Tahoe in remaining clear and beautiful? I can accept that we have made compromises in the past and must fulfill our end of the deal. But, we must not allow further damage to occur."*

Response: The LTBMU only manages National Forest System lands adjacent to Lake Tahoe; it does not have jurisdiction over activities occurring on the Lake (jet skis and power boats). Construction of piers is a site specific decision that is outside the scope of this planning effort, and would be subject to regulation by the TRPA.

As stated in the FEIS, NFS lands managed by the LTBMU will be guided by multiple use objectives and subject to applicable laws, regulations, and policies.

PC 349: The Forest Service should require the Best Available Technology for all motorized use in the Basin.

Response: Although motor vehicle regulations are under the jurisdictions of the states of Nevada and California and not the LTBMU, the Forest Service, in cooperation with State and Federal agencies, encourages off-highway motor vehicle recreationists to use equipment with the Best Available Technology.

PC 355: The Forest Service should keep ORV trails open if they accept green sticker funds.

Response: The Off-highway Vehicle (OHV) "Green Sticker" program is managed by the California Department of Parks and Recreation Off-Highway Motor Vehicle Recreation Division. Decisions regarding the use of funds the LTBMU receives from the State of California from the "Green Sticker" program are subject to the State's OHV funding

regulations and are made at the project level (e.g., law enforcement, maintenance, signage, etc.) and are therefore outside the scope of this planning effort.

PC 364: The Forest Service should put a 'QR' code on signs that would link to the LTBMU maps showing the allowed/disallowed areas.

Response: None of the alternatives analyzed in the FEIS preclude consideration of new technologies for managing NFS lands on the LTBMU. The decision whether or not to include Quick Response (QR) codes on Forest Service signs is an administrative one and therefore outside the scope of this planning effort. Currently, the LTBMU includes QR codes on some new signs when old ones are replaced. Thank you for your suggestion.

PC 374: The Forest Service should provide some beach areas that are closed to motorized watercraft.

Response: The FEIS analyzed for a range of recreation opportunities under all alternatives. Beaches currently closed to motorized boats include Pope, Baldwin, Nevada, Meeks, and William Kent. The Revised Forest Plan does not; however, preclude the future designation of additional non-motorized beaches. This decision would be made at the project level and subject to public scoping and environmental review under NEPA. Additionally, the Forest Service manages land directly adjacent to Lake Tahoe but does not manage the lake. Any future changes in regulations regarding use on the lake are not under the authority of the USFS.

PC 376: The Forest Service should provide road access in Dardanelles and Freel Peak IRAs to accommodate search and rescue vehicles, due to increased recreation use.

Response: Search and rescue teams are generally allowed on all areas of the national forest dependent on the urgent needs of the team. Search and rescue access is achieved through multiple means, including by trail, road, over snow vehicles, and helicopter.

Alternatives B, C, D and E propose to manage Backcountry Management Areas as described in the Revised Forest Plan Part 2.3 - Management Areas and Suitable Uses. Construction of roads is not a suitable use in Backcountry Management Areas.

PC 381: The Forest Service should not place restrictions on any type of recreation use.

Response: Not all recreation uses are appropriate on all NFS lands. Some recreation uses are prohibited by law in some areas. For example motorized uses are not allowed in congressionally designated Wilderness Areas in order to maintain the wilderness character of the area.

PC 382: The Forest Service should explain how the "fair share concept" is implemented.

Sample Comment: *"Motorized recreational vehicles are not receiving their "fair share" because traditionally the LTBMU has listened more attentively to environmental groups rather than the citizens of the basin."*

Response: The "fair share" concept was developed by TRPA and first introduced in the Agency's inaugural Regional Plan (1982).

The "fair share" concept was introduced during a period of rapid development and was intended to ensure that public recreation opportunities would continue to be provided – that a "fair share" of the recreation opportunities would be available to the public. The fair share concept is not about providing different types of uses.

PC 388: The Forest Service should provide direction for use of fixed anchors for climbing, especially in designated wilderness areas.

PC 390: The Forest Service should include best management practices for climbing access and cultural resource protection.

Response: Climbing activities in the Basin will be managed to provide a diversity of climbing opportunities while preserving and protecting natural resources and values. The climbing community will be engaged in cooperative stewardship when dealing with resource concerns. Stewardship will involve education and outreach, following protocols to minimize resource impacts, and complying with temporary or permanent closures of areas to protect resource values.

Outside of wilderness areas, climbing activities on the LTBMU will continue to be subject to existing Forest Orders and may be subject to future restrictions in order to protect natural and cultural resources. Climbing activities in wilderness areas will be managed according to national policy or as prescribed in specific wilderness plans.

Decisions regarding restrictions on fixed anchors are accomplished at the project level through a forest order, and thereby subject to public scoping and separate environmental review under NEPA.

PC 395: The Forest Service should allow dispersed camping in more areas.

Response: The potential for more dispersed camping opportunities is addressed in the Revised Forest Plan in Part 2 Recreation Opportunities Strategies section: "Provide opportunities for general forest undeveloped camping where applicable and where it meets management goals. Periodically review and update the forest camping order based on public health and safety, fire prevention goals, and resource protection and management capabilities."

The designation of additional dispersed camping areas on the LTBMU would be accomplished at the project level, subject to public scoping and separate environmental

review under NEPA. None of the alternatives analyzed in the FEIS preclude future designation of dispersed camping areas.

PC 398: The Forest Service should maintain opportunities for human-powered recreation.

Response: All alternatives ensure that the majority of NFS lands in the Lake Tahoe Basin are open for human powered recreation opportunities.

PC 399: The Forest Service should recognize the need to provide areas for more affordable recreation opportunities.

Response: The Forest Service offers a wide variety of recreation opportunities on the LTBMU that are accessible to the full spectrum of socioeconomic levels, including low-income households. These opportunities include:

- Dispersed camping;
- Dispersed recreation activities such as hiking, mountain biking, and cross-country skiing;
- No or low fee beach and trailhead access; and
- The availability of season passes to popular recreation sites that provide discounts for frequent visitors.

PC 401: The Forest Service should include management of non-motorized watercraft activities and the Lake Tahoe Water Trail in the Forest Plan and EIS.

Sample Comment: *The Conservancy recommends that LTBMU include non-motorized watercraft activities and the Lake Tahoe Water Trail in the discussion of public access in the Forest Plan and EIS. By acknowledging the role LTBMU lands play in the viability of non-motorized activities in the Forest Plan, the needs of this large user group can be better recognized in sustainable recreation system planning and investment..*

Response: None of the alternatives specifically preclude consideration of accommodating activities (such as dispersed camping and the development of additional facilities) on NFS lands in the future in support of the Lake Tahoe Water Trail. Specific proposals for facilities or changes in management to support the Lake Tahoe Water Trail could be considered at the project level. Since the LTBMU does not have jurisdiction over Lake Tahoe, inclusion of management direction for the Lake Tahoe Water Trail is not appropriate for inclusion in the Forest Plan.

PC 403: The Forest Service should include equestrian uses in the Forest Plan.

Sample Comments: *"Also, as an equestrian, I have been saddened by the new trails that have been created that are downright dangerous to horses and riders. What's up with putting STAIRS on a back country trail? The Van Sickle trail is supposed to be a horse-friendly trail. However, it's too narrow, has blind corners where mountain bike encounters are extremely dangerous, and the water crossing is impossible. PLEASE take*

into consideration the safety of equestrians when developing new trails. The same goes for sections of the Star Lake Connector from High Meadows; and of course the Cold Creek Trail is NOT ride-able at all."

"The loss of roadside parking would make equine activities nearly impossible without alternative parking areas for truck and trailer. Currently the only horse parking facility, located at Bay View is unmarked, unmaintained, and unusable for equine do to cars parked in the area original designated for horse trailers and corrals…. The LTBMU appears to have decided not to include the equine community in there multi-use management concept."

"In your Dispersed Recreational Use area of the Forest Plan, you do NOT mention Horseback riding as a recreation in the basin?"

Response: The FEIS analyzes five alternatives in detail, each of which provides for a range of recreation opportunities, including equestrian use. Site-specific considerations for equestrians, including trail construction and maintenance, parking, and overnight camping facilities, are accomplished at the project-level rather than at the Forest Plan level. Project design is subject to and often influenced by public comment. As described in Section 3.4.19 - Recreation of the FEIS, the LTBMU will continue to focus primarily on the redevelopment of existing sites and facilities by reducing or eliminating deferred maintenance or modifying existing facilities to help achieve accessibility and sustainability of recreation opportunities in the Lake Tahoe Basin. Opportunities to enhance or improve existing recreation facilities and services—including those designed for equestrian use—will be driven by available funding over the life of the Forest Plan. Future consideration of the addition of equestrian facilities would be subject to environmental review and public scoping under the NEPA.

Please see Section 3.4.1- Access and Travel Management of the FEIS for a discussion of the effects of each alternative on parking and access. Designation of additional equestrian parking would be accomplished at the project level subject to public scoping and separate environmental analysis under the NEPA.

Under 36 CFR 212 Subpart A, the Forest Service assigns Trail Class ratings to each of its trails. Trails are maintained to the standards identified in Forest Service Handbook 2309.18, "Trails Management Handbook," for each Trail Class. The ability of the Forest Service to maintain these trail standards year to year is dependent on available funding.

The omission of horseback riding as a dispersed summer recreation activity in Chapter 3 (Table 3-1 and Section 3.4.19 - Recreation" section) was an oversight. While equestrian use was analyzed as a recreation activity under all of the alternatives, Chapter 3 has been updated to more clearly identify this as a dispersed summer recreation opportunity. Equestrian use is also recognized in the Suitable Uses section of Part 2 in the Revised Plan.

PC 404: The Forest Service should establish horse camping areas.

Response: Thank you for your suggestion. The designation of additional equestrian camping areas and stock trailer parking on the LTBMU would be accomplished at the project level, subject to public scoping and separate environmental review under NEPA. None of the alternatives analyzed in the FEIS preclude future designation of equestrian camping areas and trailer parking.

PC 410: The Forest Service should require that dogs be on a leash.

Response: The Forest Service enforces leash regulations in developed recreation sites via existing Code of Federal Regulations (CFR) 261.16(j). Outside developed recreation sites, leash laws are established and enforced by county ordinances unless restricted by a Forest Order.

PC 419: The Forest Service should recommend the Lake Tahoe Basin for National Recreation Area status.

Response: The LTBMU, though not a *National Recreation Area*, is already considered a National Special Recreation Management Area in its current designation as a *National Management Emphasis Area* as described in FSM 2371.01. Please see excerpts from Public Law 106-506 (Lake Tahoe Restoration Act) below which established Lake Tahoe as National Management Emphasis Area.

> **(1) Lake Tahoe, one of the largest, deepest, and clearest lakes in the world, has a cobalt blue color, a unique alpine setting, and remarkable water clarity, and is recognized nationally and worldwide as a natural resource of special significance;**
>
> **(2)in addition to being a scenic and ecological treasure, Lake Tahoe is one of the outstanding recreational resources of the United States, offering skiing, water sports, biking, camping, and hiking to millions of visitors each year, and contributing significantly to the economies of California, Nevada, and the United States;**
>
> **(3)the economy in the Lake Tahoe basin is dependent on the protection and restoration of the natural beauty and recreation opportunities in the area;**

PC 430: The Forest Service should consider apparent conflicts between management area map and ROS map.

Sample Comment: *"The lands designated semi-primitive non-motorized appear to be heavily restricted by buffer zones around motorized routes. For the reasons stated above, such buffer zones are not appropriate in the LTBMU because they simply take too much of the available recreational land."*

Response: The ROS map (Revised Forest Plan Map 9) was updated consistent with the criteria for establishing ROS classes. Adjacency to highways is one of the criteria considered.

PC 42: The Forest Service should expand developed recreation.

Sample Comment: "*I am in favor of enhancing recreational opportunities in our public lands, including improving trail-heads, providing parking areas and comfort facilities, improving and expanding sno-parks, and increasing environmentally friendly camping areas.*"

"Lake Tahoe's smaller outdoor and recreation based business can also be helped with a thoughtful look at granting those special use permit areas the ability to update and expand their facilities as needed to insure they also have the opportunity to provide great services to visitors and locals alike."

"I think Oneidas should be a snow park with parking, garbage cans, and bathrooms for snowmobilers and mountain bikers. It is a perfect spot to serve many different groups."

Response: Each of the five FEIS alternatives, provides for a specific degree of construction, site modification, redevelopment, and/or decommissioning of developed recreation site infrastructure. Expansion beyond these limits would require a Forest Plan amendment. As described in FEIS Section 3.4.19.2 Overview of the Affected Environment for Recreation Resources, the LTBMU offers a wide variety of developed recreation sites that provide different levels of user comfort and convenience. These facilities have been constructed to offer sustainable recreation opportunities, protect resources, and otherwise manage visitor activities in different outdoor settings. All alternatives continue to support this objective by focusing on deferred maintenance or modification of existing facilities to help achieve accessibility and sustainability of recreation opportunities in the Lake Tahoe Basin. Future site modification and/or redevelopment under any of the alternatives is subject to future funding levels.

Thank you for your suggestion regarding Oneidas Road. Designation of developed recreation sites, such as the establishment of additional parking and restroom facilities, must be accomplished in a project-level decision and would be subject to separate environmental analysis and public scoping under the NEPA. Therefore this comment is outside the scope of this planning effort.

PC 75: The Forest Service should not expand developed areas.

Sample Comment: *"Most importantly, the few remaining undamaged wild areas we still have in the Tahoe Basin need to be preserved, for their value to wildlife, people, and water and air quality. There should be no expansion of developed areas, and all roadless areas should remain so".*

"There is WAY TOO MUCH accommodation of human structural change and not nearly enough for the preservation of the gorgeous natural scenery and environment all those people claim they come to experience."

Response: The FEIS analyzes five alternatives in detail, each of which provides for a specific degree of construction, site modification, redevelopment, and/or decommissioning of developed recreation site infrastructure. Alternative D would address your comment and could potentially result in a 15% decrease in developed recreation opportunities and infrastructure on the LTBMU.

Current management of Inventoried Roadless Areas would continue; these areas would comprise the majority of land in the Backcountry Management Area. Wilderness and Backcountry Management Areas would remain undeveloped under all alternatives, and these two management areas together range from 45% of LTBMU lands in Alternative B to 52% of LTBMU lands in Alternative D (assuming that recommended Wilderness areas were subsequently designated by Congress). Development is also extremely limited on Santini-Burton Urban Forest Parcels, which comprise an additional 9% of LTBMU lands.

OSV

Overall

PC 59: The Forest Plan should address winter recreation.

PC 321: The Forest Service should work to resolve the conflicts associated with winter recreation.

PC 327: The Forest Service should manage winter recreation conflict by providing shared and single use trails and areas.

PC 332: The Forest Service should balance motorized and non-motorized winter uses; one group should not take precedence over the other.

PC 360: The Forest Service should evaluate and plan for winter recreation uses in more detail.

PC 368: The Forest Service should ensure the Plan and EIS are in compliance with E.O 11644 and E.O.11989.

PC 402: The Forest Service should designate separate trailheads for motorized and non-motorized winter use.

PC 431: The Forest Service should do winter travel management as soon as possible.

Con OSV

PC 120: The Forest Service should close more areas to OSV use.

PC 157: Forest Service should decrease the area snowmobiles are allowed to use.

PC 123: The Forest Service should step up enforcement to ensure that OSV's adhere to current restrictions and stay in designated areas and marked routes.

PC 357: The Forest Service should improve enforcement of snowmobile closures.

PC 143: The Forest Service should consider the effects of OSV use on natural resources and the social, economic, aesthetic, historic, and cultural effects.

PC 347: The Forest Service should limit snowmobile use to designated routes and should not allow open riding areas.

PC 370: The Forest Service should eliminate OSV use in the Tahoe Basin.

PC 392: The Forest Service should close the Mt. Watson road (Fiberboard Freeway) to OSVs.

PC 387: The Forest Service should work to minimize conflicts between commercial OSV operations and human-powered recreationists.

PC 375: The Forest Service should eliminate OSV use in Tahoe meadow, around Incline Lake, and adjacent to the Mt Rose Wilderness.

PC 361: The Forest Service should designate routes and areas for OHV and OSV use to limit impacts.

PC 309: The Forest Service should close the area between Hwy 267 and Hwy 50, including the Mt Rose corridor, to motorized winter use.

PC 353: The Forest Service should recognize that snowmobiling is a high-impact form of recreation and is incompatible with many other forms of recreation.

PC 359: The Forest Service should provide some areas that are closed to OSV use.

PC 322: The Forest Service should not open more areas to OSV use.

Pro OSV

PC 30: The Forest Service should maintain current OSV opportunities.

PC 314: The Forest Service should allow OSV use of bike trails.

PC 317: The Forest Service should provide areas that are closed to non-motorized winter recreation and non-mechanized summer recreation.

PC 333: The Forest Service should increase the areas open to OSV.

PC 386: The Forest Service should open all NFS lands to OSV use

Sample Comment: *"In closing, I would like to say that the continued practice of closing areas to Snowmobilers to keep Cross Country Skiers happy, is like teaching your children to not to play with others, no discipline makes for a spoiled and greedy society. So the next time you choose to close an area, close it to Cross Country Skiing!!"*

"Mixing motorized and non-motorized winter users creates an unsafe environment for pedestrian users."

"The Draft Plan fails to do winter travel management, defining areas open and closed to motorized vehicles in winter, as required by the Forest Service planning rule, Executive Orders and the Tahoe Regional Planning Agency."

Response: A large volume of the comments received surrounded the issue of winter Over Snow Vehicle (OSV) use. The term OSV commonly refers to snowmobiles but includes any other motorized vehicle designed to travel over snow. Comments ranged from one extreme to the other regarding OSV use, some wanting OSVs banned completely from NFS lands (PC 370) and others wanting all NFS lands open to their use(PC 386). While there is some variation in each comment based on personal experience, awareness of the actual contents of the Plan, and interpretation by others, there were fundamentally two positions.

One group of commenters expressed that the areas currently designated for OSV use should be substantially reduced or eliminated entirely (PCs 120,157, 322, 347, 370, and 359). This group advocated non-motorized (human powered) winter recreation, such as cross-country skiing and snowshoeing. They commented that OSV use and non-motorized uses are not compatible because the noise, crowding, smell, sight and tracks left in the snow from OSVs are offensive and ruin their ability to experience the serenity and beauty of winter landscapes (PC 353). This group believes that OSVs are responsible for environmental damage to the soil, vegetation, water and air (PC143). In particular they recommended that the area from CA Hwy 267 and US Hwy 50 at Spooner Summit be identified as a "quiet quadrant", free of OSVs (PC 309). The area at Tahoe Meadows, near the summit of the Mt. Rose Highway (NV Hwy 431), was frequently mentioned as an area of conflict (PC 309). This area is popular with both OSVs and non-motorized users. Additionally, since the area is immediately adjacent to a major state highway there is also a lot of general snowplay (saucers, sleds, kids playing in the snow). Some of this area is open to OSVs and some is closed and a portion of this area is on the Humboldt-Toiyabe National Forest and outside the jurisdiction of the LTBMU.

Offering an opposing view, there was a group of commenters that supported OSV recreation and advocated the retention or expansion of existing areas open to OSV (PCs 30, 314, 333, and 386). Generally this group does not mind the presence of non-motorized users and so does not describe the issue so much as a conflict. This group's major concern stems from the loss of areas to ride OSVs outside the Lake Tahoe Basin which creates the perception that there are fewer and fewer areas available to them. This increases the desire to keep areas open at Lake Tahoe. This group also was against any recommendations for additions to the National Wilderness Preservation System (proposed in Alternatives C and D), since these areas would be closed to all motor vehicle use if Congress were to act on the recommendations.

The arguments presented by both groups actually have many positions in common. Both groups suggest that the Forest Service should do what is "fair". Of course what is "fair" is a matter of perspective. The non-motorized group suggests that since they significantly outnumber the OSV users, they should have a greater proportion of the LTBMU to recreate free of OSVs. The OSV group also suggest the amount of use by OSVs justifies more area be opened to them. The OSV group believes they are being slowly squeezed

out of public lands and further loss of areas open to OSVs is not reasonable and is unwarranted. Both groups suggest they are being "discriminated" against by public land managers and have a "right" to use public lands. One of the frequently mentioned problems, by both groups is the availability of parking especially in areas of high use.

Both groups point to public lands and the LTBMU as the only place that provides the space necessary for the recreation experience they desire. For winter recreation, an elevation high enough to have consistent snow pack is necessary, which does limit the area available. The non-motorized group talks about the need for large expanses of land to find "quiet and peaceful surroundings, a needed respite for our mechanized and noisy world." The OSV group portrays the need to use large expanses of land because of the distances their machines can travel. Both groups extoll the unique beauty of Lake Tahoe.

Both groups suggest their use is on the upswing and cite their contribution to the local and regional economy based on the equipment and supplies they buy. They both believe their groups are major economic forces.

The separation of these groups is not absolute, as there are some that enjoy both aspects of winter recreation along with downhill skiing at a resort. For example, there are now backcountry skiers who ride along on OSVs to gain quick access farther into the backcountry for remote skiing.

Overall there were notable misconceptions about the current situation. The non-motorized group incorrectly portrayed that there were areas closed or unavailable to them. Currently 100% of the LTBMU is open to non-motorized use. Approximately 52% is open to OSVs, which means 48% of LTBMU lands are free of OSVs. Additionally there are over 19,600 acres of state lands (CA State Parks, CA Tahoe Conservancy, and NV State Parks) open to non-motorized use but closed to OSV use. Cumulatively this increases the area in the Lake Tahoe Basin that is free of OSVs by about 12%.

The 1982 Planning Rule (as well as Executive Orders 11644 and 11989)(PC 368) requires of the Forest Service that "Off-road vehicle use shall be planned and implemented to protect land and other resources, promote public safety and minimize conflicts with other uses of the National Forest System lands." (§219.22 (g)). The Plan meets this requirement by reaffirming the current designation of areas open to OSV use that was contained in the 1988 LTBMU Forest Plan (PCs 59, 360, 321, 360, 431). There is no duty in the regulations to reevaluate OSV use upon revision of a plan. The Plan satisfies the regulatory requirement because OSV use is "planned and implemented" on the entire LTBMU and has been continuously in force for the past twenty-five years, and will continue to be, per this Plan.

Commenters from both sides argue that the current designations are unfair (PCs 120, 317, 332). As mentioned above, that is a matter of perspective. Both groups wanted the Forest Service to conduct further studies on the number of people that participated in non-motorized vs. OSV activities, believing the numbers would trigger changes in their favor. This Plan, and in general the Forest Service, does not manage any use by strict

numerical proportions of use or demand. There are many examples where management is not gauged by use or demand. For example, the Plan does not even begin to meet the demand for overnight camping in the summer because the tradeoff of having significant increases in developed land is not acceptable. In the winter environment, developed ski areas do not occupy a portion of the landscape in proportion to the high use that occurs. (Downhill skiing accounts for 62.5% of the total annual use while cross country skiing and snowmobiling account for 9.8% and 6.2%, respectively.)

In an argument similar to proportional management based on the number of users, both sides argue that not all lands available to them are suitable for their use due to access, terrain, parking, and conflicts with other users, and that strict percentages are misleading. Both suggest that more precise mapping would lead to a redistribution of the designated OSV areas when combined with use numbers.

The Plan is based on Desired Conditions (DCs 84-87) that promote a range of recreational opportunities within the context of a rustic outdoor experience appropriate to National Forest System lands. On a small area such as the LTBMU (only about 155,000 acres) with such a high use and many different kinds of use, there is simply not the area available to separate all users in a manner that gives them all exactly the part of the landscape they want to use (PCs 327, 402). In fulfillment of the Desired Conditions presented in the Plan, several major winter activities are accommodated on the LTBMU: downhill resort skiing, cross-country skiing and snowshoeing, OSV use and snowplay. They are provided in proportions that allow participants full enjoyment at least somewhere within the boundaries of the LTBMU. There was no agreement amongst commenters as to what the appropriate proportion of each activity should be and no one proposed a systematic, science based method for developing an appropriate and fair allocation.

The NVUM results for 2010 show that 98% of visitors to the LTBMU were “somewhat satisfied” or “very satisfied” with their recreational experience. The national target is 85% (FEIS Ch. 3, Sec 3.4.17). The Plan does serve the majority of users by providing a very diverse and high quality recreational experience, which has led to a very large, satisfied group of users.

Commenters advocated many site specific alterations to the existing OSV designations, from minor boundary changes to expansion or elimination of large areas (PCs 392, 375, 309). The recreation program as defined by the Desired Conditions, Strategies, Objectives and Standards/Guidelines promotes a diverse range of recreational opportunities consistent with Forest Service policy. Regulations do not require, and the FEIS does not reopen all the decisions that over the years have created the current existing situation. Consequently, existing recreation developments and use designations are included in the FEIS as existing facilities and/or on-going activities. The Plan recognizes and affirms the presence of features such as Camp Richardson Resort, Heavenly Mountain Resort, Camp Concord, and recreation residences, to name a few. The FEIS also affirms past management decisions such as the prohibition of rock climbing on Cave Rock. The retention of the summer off-highway vehicle designation and the OSV designations are included and analyzed as part of the existing situation.

Many commenters suggested that the current OSV designations do not "minimize" conflict as required by the regulations (PCs 387, 321). The regulations do not require the elimination of all conflicts. The Plan does meet this part of the regulation. The designated areas open to OSVs are well known and have been in place for 25 years and involve only 52% of the LTBMU. By providing a range of recreational opportunities over the entire LTBMU, users are afforded choices to recreate in high use areas or find solitude in lesser traveled areas. Based on the extremely high satisfaction ratings from the 2010 NVUM survey conflict is not so pervasive as to ruin many visitors' experience.

Some non-motorized commenters suggest that OSVs damage the environment (PC 143, 361). The FEIS analyses the on-going use of OSVs on the LTBMU based on the current use designations and finds there is no significant impact to the resources. (FEIS Chapter 3, Sections 3.4.2 Air Quality, 3.4.3 Aquatic Wildlife Habitat and Species, 3.4.20 Soils Resource, 3.4.21 Terrestrial Wildlife Habitat and Species, 3.4.23 Water Quality). Therefore the Plan meets the requirement "...to protect land and other resources,"

PC 308: The Forest Service should manage winter motorized use areas the same as summer motorized use areas, and should prohibit all motorized use in IRAs.

Response: Summer and winter uses have different effects and provide different kinds of recreation opportunities and are thus treated differently in the Draft Plan and FEIS.

Future changes to designated motor vehicle routes and areas will be accomplished at the project level subject to public scoping and separate environmental review under NEPA.

Please see also the response to PC 15 and PC 383.

PC 352: The Forest Service should ban two stroke engines on snowmobiles.

Response: The Forest Service will continue to support the use of over snow vehicles using industry developed Best Available Technology (BAT) by our special use permit holders, and encourage the general public to also use over snow vehicles with BAT. All OSVs should be compliant with existing Federal emissions standards.

PC 384: The Forest Service should limit snowmobiles to developed areas except for search and rescue.

Response: The use of OSVs by search and rescue teams is generally allowed on all acres of the national forest dependent on the urgent needs of the team. OSV use is considered a suitable recreation use in designated portions of Backcountry and General Conservation Management Areas of the LTBMU with specific restrictions depending on applicable legal, policy or permitting regulations (see Revised Forest Plan, Part 2, Table 5 - Suitable Uses and Management Activities by Management Area and response to comment 370).

PC 385: The Forest Service should restrict motorized vehicle use to electric powered vehicles.

Response: In cooperation with State and Federal resource agencies, the Forest Service encourages the use of the Best Available Technology (BAT) off-highway motor vehicles and snowmobiles. Technology for Electric powered OHVs and OSVs is not currently available.

PC 417: The Forest Service should eliminate the snowmobile concession on Brockway Summit.

Response: As with any special use authorization, the decision to issue or terminate a special use permit is made at the project level and subject to environmental review and public scoping under the National Environmental Protection Act (NEPA). Therefore, the recommendation to terminate the existing snowmobile outfitter guide authorization at Brockway Summit is outside the scope of this planning effort.

All special use proposals are reviewed for compatibility with public use of National Forest System (NFS) lands. Per 36 CFR 251.54 and Forest Service Handbook 2709.11, all proposals are subject to screening criteria, which include but are not limited to:

- Use is consistent with law, regulations, orders, policies of NFS lands, and other federal laws and is applicable with state and local health and sanitation laws.
- Use is consistent or can be consistent with Forest Land Management Plans.
- Use does not pose serious or substantial risk to public health and safety.
- Use does not unreasonably conflict or interfere with administrative use, other scheduled or existing authorized uses, or adjacent non-NFS lands.

PC 311: The Forest Service should designate snowmobile routes for the first 1/2 mile in mixed use areas to separate motorized and non-motorized use.

PC 338: The Forest Service should consider allowing motorized and non-motorized winter uses on alternate days.

Response: The Revised Forest Plan does not prohibit these strategies, and they could be implemented at a future time based on site-specific analyses and decisions.

PC 321: The Forest Service should work to resolve the conflicts associated with winter recreation.

Sample Comments: "*The LTBMU has not done it's diligence in managing conflict with winter recreation. Instead the LTBMU has sided with extreme environmentalist groups such as the Snowlands Network and the Winter Wildlands. These extreme environmentalist organizations spread fear of lawsuits in federal court if their agenda is not supported by the LTBMU. Also, I have work with these organizations and although some of their complaints have validity, many are fabricated or exaggerated. The LTBMU*

should be working to bring us together, find the truth and resolve the issues. The forest is for all to enjoy."

"I am concerned with how the Lake Tahoe Basin Forest Plan Revision will protect Lake Tahoe and its winter resources. Please manage snowmobile use including the noise, smell, and danger of conflicts between snowmobilers and skiers. One snowmobile impacts the recreation experience on many acres for self-propelled enthusiasts who are enhancing self-health."
Response: Section 2.2 of the Revised Forest Plan has been updated to include a strategy that provides for managing recreational user conflicts, which includes those associated with winter recreation activities.

The current designations of areas open and closed to OSV use were based on input from a Working Group of representatives from ORV groups, conservation organizations, interested citizens, public agencies, and Forest Service specialists in the 1970s. The LTBMU initiated a collaborative process to resolve winter recreation conflicts in 2011; this process is ongoing.

PC 365: The Forest Service should designate areas as closed unless open to snowmobiles.

Response: Map 18 in the Revised Forest Plan designates areas as open to snowmobiles.

PC 123: The Forest Service should step up enforcement to ensure that OSVs adhere to current restrictions and stay in designated areas and marked routes.

PC 357: The Forest Service should improve enforcement of snowmobile closures.

In all alternatives, OSV activities in the Basin are managed via the areas that are open and closed to OSV use as currently designated and are enforced through the existing Federal Code of Regulations. The Forest Service provides information to the public about the rules and regulations governing OHV and OSV use and enforces them throughout the year within our available resources.

PC 367: The Forest Service should re-analyze areas open to OSV use before allowing additional OSV outfitter guide permits or expanding or renewing existing permits.

Response: As with any special use authorization, the decision to issue, renew, or terminate a special use permit is made at the project level, is required to be consistent with the Forest Plan, and subject to environmental review and public scoping under the NEPA. Consistency with the Forest Plan requires that any OSV special use permits would be limited to designated areas where OSV use is allowed.

PC 369: The Forest Service should recognize the value of powder snow as a natural resource.

Response: Map 18 of the Revised Forest Plan depicts the many areas in the basin where motorized and non-motorized recreationists can choose to enjoy the unique recreation opportunities provided by new snowfall.

PC 411: The Forest Service should provide more marked trails for skiers.

Response: Thank you for your suggestion. Installation of additional trail signage for dispersed winter recreation activities is an administrative action and would be accomplished at the project level rather than at the Forest Plan level.

PC 484: The Forest Service should analyze the effects of climate change on recreation opportunities.

Response: A discussion of ways in which climate change may impact recreation opportunities can be found in Chapter 3 of the FEIS, Recreation – Consequences Related to Climate Change, and in the Climate Change Sustainable Operations section of Chapter 3.

PC 350: The Forest Service should evaluate the contribution of snowmobile use to the Vehicle Miles Traveled Threshold (TRPA).

Response: Vehicle Miles Traveled (VMT) is a proxy measure of traffic congestion, the production of nitrates, and entrainment of soil sediments from roads (TRPA, Threshold Evaluation Report, 2011) and does not apply to OSVs.

Ski Areas and Slopes

PC 340: The Forest Service should limit ski area development and expansion to existing permit areas.

PC 96: The Forest Service should not expand ski resorts.

Response: The FEIS has been updated to clarify that the LRMP makes no changes to the existing ski area special use permit boundaries. However, the FEIS anticipates additional development within the existing permit boundaries to varying degrees in Alternatives A, B, C, and E, and less development within the existing permit boundaries in Alternative D. Ski area expansion beyond the existing special use permit boundary may be considered if consistent with the Management Area and Suitable Uses table identified in the Revised Forest Plan (Table 5), but would require a Forest Plan amendment.

PC 339: The Forest Service should include plan direction for year round use at ski areas.

PC 320: The Forest Service should be flexible in expanding recreational opportunities to other seasons due to changing user preferences, technology, seasons of use, and other issues affecting recreational preferences at ski areas not only because of climate change.

PC 343: The Forest Service should include plan direction for non-motorized summer use at ski areas.

Response: The desired condition for ski areas is to deliver services in response to identified need and management objectives. The Revised Forest Plan does not require that the identified need or management objective be limited to climate change. Rather,

the Recreation Program Strategy describes that the recreation program must have the ability to adapt to changing recreation preferences including user experiences and trends (Revised Forest Plan Section 2.2 and Suitable Uses section (2.3)).

The FEIS anticipates additional development within existing ski area permit boundaries in Alternatives A, B, C and E in support of year round activities. Additional development may be in response to either winter or summer recreation uses as authorized by law, regulation, and agency policy including but not limited to the Ski Area Recreation Opportunity Enhancement Act of 2011. (FEIS Chapter 3, Section 3.4.19).

PC 341: The Forest Service should allow expansion of ski area permit boundaries.

Response: The FEIS has been updated to clarify that the LRMP makes no changes to the existing ski area special use permit boundaries. However, the FEIS anticipates additional development within the existing boundaries in Alternatives A, B, C and E, and less development within the existing boundaries in Alternative D. Ski area expansion beyond the existing special use permit boundary may be considered if consistent with the Management Area and Suitable Uses table identified in the Revised Forest Plan (Table 5), but would require a Forest Plan amendment.

PC 346: The Forest Service should ensure that ski area development minimizes impacts to natural resources.

Response: Under 36 CFR 251.56, all special use authorizations, which include ski area development, must include terms and conditions to minimize impacts to natural resources. As development activities are proposed, they are subject to public scoping and separate environmental review under NEPA. During this project level review, mitigations and design features are incorporated as necessary to protect natural resources.

PC 463: The Forest Service should present the basis for determining that there is/was no need to consider the recreation residence sites for other public uses, and establish criteria for continuing a process for monitoring and analyzing the need for retrieving the privately used lands for public benefits in the Forest Plan.

Response: Recreation residence permits were renewed in 2010 for a period of 20 years. The analysis completed for permit reissuance included the determination that the current use of these sites for recreation residences is still appropriate.

Recreation residences are an authorized use of National Forest System lands under CFR 251.50. Direction on administration of recreation residence special use permits—including Forest Service policy on determining whether recreation residence permits may be issued for a new term at existing lots (i.e., permit continuance)—is outlined in Forest Service Manual (FSM) 2721.23e, “Recreation Residence Continuance.”

PC 481: The Forest Service should clarify use of maintenance agreements with permittees.

Response: Thank you for your comment. The Revised Forest Plan has been revised to include a better description of what is meant by "maintenance agreements."

Wilderness

PC 1: The Forest Service should not recommend additional wilderness.

Response: The FEIS analyzes a range of alternatives, each of which provides for a mix of recreation opportunities. In Alternatives A, B, and E (FEIS Preferred Alternative), no additional wilderness areas are recommended.

PC 6: The Forest Service should decrease or eliminate all wilderness.

Sample Comment: *"PLEASE OPEN ALL CURRENT EXISTING CLOSED AREAS TO RECREATION. I am against all 7(seven) of the proposed wilderness designation areas. In these areas with such designation the land becomes useless to us its owners not only for recreation but also with devastating consequences in the event of fire or other natural or human caused disasters."*

Response: Alternatives A, B, and E do not recommend additional Wilderness areas. Elimination of designated wilderness areas can only be accomplished by an Act of Congress. Therefore, this comment is outside the scope of this planning effort.

Two areas were proposed for Wilderness recommendation (in Alternatives C and D). LTBMU lands include parts of 3 designated Wilderness areas (Desolation, Granite Chief, and Mt. Rose).

PC 62: The Forest Service should recommend additional wilderness.

Sample Comment: "*Wilderness designation will preserve roadless areas and the quiet and undisturbed regions surrounding Lake Tahoe. It will protect sensitive and delicate habitat from the severe impacts caused by mountain bikes and OHV's. There are literally hundreds of miles of dirt and primitive roads in the Lake Tahoe area. Plenty for the most avid mountain biker and four-wheeler. Sacrificing roadless lands is unacceptable."*

"More wilderness is a good thing, not bad. We need to protect the area surrounding Lake Tahoe and it's basin now, because if it isn't done now it may be too late."

Response: Alternatives C and D recommend designation of additional wilderness areas on the LTBMU (see Chapter 2.3 of the FEIS). Final designation of wilderness areas can only be accomplished by an Act of Congress.

Current protections for Inventoried Roadless Areas will be maintained through the activity and use restrictions in the Backcountry Management Area.

PC 94: The Forest Service should evaluate resource concerns in areas with potential for wilderness designation and address these concerns rather than waiting for designation to protect these lands.

PC 428: The Forest Service should consider other means of protecting resource values than wilderness designation.

Response: Lands are recommended for Wilderness designation because they exhibit wilderness characteristics (Volume III, Appendix C). In addition, lands that might be eligible for Wilderness designation are primarily located in the Backcountry Management Area, which restricts activities and uses to protect natural resources (Revised Forest Plan, Part 2, Management Area and Suitability sections).

As outlined in Part 3 of the Revised Forest Plan, standards and guidelines have been developed for all resource areas to address resource concerns. As described in Part 3 Design Criteria of the Revised Forest Plan, these standards and guidelines are applied together with applicable law, regulation and policy in order to provide sideboards for subsequent projects and activities to help achieve desired conditions and objectives forest-wide. Standards and guidelines set mandatory limits and constraints on management activities in order to ensure resource protection.

PC 103: The Forest Service should retain and protect current wilderness areas.

Response: As stated in Section 2.2 of the FEIS, all alternatives analyzed in the FEIS maintain current wilderness area designations within the LTBMU.

PC 405: The Forest Service should prohibit dogs in designated wilderness areas.

Response: The Wilderness Act does not prohibit dogs in wilderness areas. Leash laws, which apply in wilderness areas, are established and enforced by county ordinances unless restricted by a Forest Order.

PC 416: The Forest Service should better explain their wilderness evaluation criteria and improve the analysis.

Response: The "Evaluation of Areas for Potential Wilderness" is found in Appendix C (Volume III) of the Revised Forest Plan. The criteria used in the evaluation are explained in the Introduction. The evaluation followed the national guidance provided in the Forest Service Handbook 1909.12, Chapter 70.

PC 418: The Forest Service should adjust boundaries for potential wilderness areas to avoid recreation use conflicts.

Response: The boundaries of the existing Dardanelles and Freel Inventoried Roadless Areas were used in the wilderness analysis. If these recommended areas are advanced for wilderness designation by Congress, final boundary determinations will be addressed at that time.

PC 420: The Forest Service should prepare a joint wilderness recommendation for the entire Dardanelles roadless area along with the two adjacent forests.

Response: Alternatives C and D both recommend wilderness designation for the Dardanelles Inventoried Roadless Area within the LTBMU boundaries. At this time, the adjacent Forests have not expressed interest in recommending Wilderness in this area. All five alternatives preserve the opportunity to recommend additional Wilderness in the future.

PC 421: The Forest Service should manage lands under their current designation and not as wilderness.

Sample Comment: *"I strongly object to managing any public non-Wilderness lands as if they were already designated Wilderness. This creates de-facto new Wilderness and does not manage the lands under the proper, legal management designation."*

Response: Lands proposed for Wilderness recommendation are in the Backcountry MA and would continue to be managed as such until such time as they are designated by Congress.

PC 433: The Forest Service should address how additional wilderness conflicts with the City of South Lake Tahoe's business/marketing plan.

Sample Comment: *"Another area of concern for the commission is that restricting some users from the proposed wilderness areas is in direct conflict with the City of South Lake Tahoe's business/marketing plan to increase outdoor recreation based tourism. Has the loss of revenue to the City of Lake Tahoe been taken into account? My understanding is that through the Pathway 2007 plan local agencies would be working together for the mutual benefit of the stake holders in the Tahoe basin."*

Response: The consequences of Wilderness recommendation are disclosed in the FEIS sections 3.4.19 and 3.4.27 (recreation and wilderness). We do not believe that Wilderness recommendation conflicts with the City of South Lake Tahoe's business/marketing plan.

PC 89: The Forest Service should complete an evaluation of areas suitable for wilderness designation.

Response: As part of the Forest Plan Revision process, the LTBMU undertook an evaluation of areas for potential wilderness designation. This evaluation can be found in Appendix C of the Revised Forest Plan (Volume III).

PC 168: Forest Service should provide more protections for wilderness in the Plan.

Response: All wilderness areas in the LTBMU are managed in accordance to the standards and policy's established in the 1964 Wilderness Act. Section 3.3 - Designated Special Areas Standards and Guidelines in the Revised Forest Plan, provides guidelines and other sources of management information for the Desolation, Granite Chief and Mt. Rose Wilderness Areas.

Scenic Resources

PC 47: The Forest Service should maintain the scenic quality and consider the unique qualities of the Tahoe Basin in management decisions.

Response: The Revised Forest Plan establishes management strategies for maintaining scenic quality and enhancing valued scenic attributes (including the unique visual qualities of the Tahoe Basin). The Revised Plan requires that future management activities meet or exceed identified minimum scenic integrity objectives. The environmental consequences of each alternative are discussed with respect to scenic integrity in FEIS Section 3.4.20 – Scenic Resources. Evaluation of scenic stability is also discussed in the context of perpetuating valued scenic attributes into the future.

PC 86: The Forest Service should seek the return of that park-like quality which the pioneers experienced as they traversed the Sierra Nevada.

Response: The Revised Forest Plan identifies forest vegetation desired conditions that approximate conditions prior to the area's Comstock-era logging. A diversity of vegetation conditions, including those composed of larger trees with canopy covers that are generally more open than those seen today is a desired condition.

PC 342: The Forest Service should revise Scenic integrity and Stability ratings to reflect reality of the built environment inherent in ski areas.

Response: The Minimum Scenic Integrity Objectives (MSIOs) have been updated to more accurately reflect desired landscape conditions within developed ski areas and are displayed on Map #10 of the Revised Forest Plan. Existing scenic integrity in many of these areas is identified as "low" and the MSIO has been revised from "high" to "moderate" to reflect anticipated improvements in scenic integrity over the Plan Period.

The Minimum Scenic Stability, Map #11 of the Revised Forest Plan has been correctly re-named as "Existing Scenic Integrity". Scenic resource strategies continue to manage for achieving "high" scenic stability on a project-by-project basis over the Plan Period.

PC 461: The Forest Service should recognize the need for local direction to supplement the Built Environment Image Guide in order to provide guidance better suited to an alpine environment.

Response: The Revised Forest Plan requires that LTBMU activities related to the built environment be consistent with the Built Environment Image Guide and its North Pacific Province, which includes the central and northern Sierra Nevada. While the BEIG is general in its direction, the Forest Plan Standards and Guidelines further identify the use of a "Tahoe architecture theme" to ensure that the LTBMU built environment is visually compatible with the local alpine physical and cultural environment. Meeting this standard is consistent with the perpetuation of the valued scenic attributes identified in FEIS section 3.4.20 – Scenic Resources.

Terrestrial Wildlife Habitat and Species, Including Management Indicator Species (MIS)

Post Fire/Burned Forest Habitat

PC 238: The Forest Service should include forest-wide standards to maximize the protection of post-fire habitat from logging and measurable standards for closed canopy retention that are at least as protective as the standards enacted under the 2001 Sierra Nevada Framework.

Sample Comments: *"The LTBMU management plan should include specific and enforceable forest wide standards for closed canopy as well as protection of mature and old growth forests that are at least as strong as the 2001 Sierra Nevada Framework Plan.*

First and foremost the Sierra Club recommends that the management plan include an enforceable forest-wide standard requiring the Forest Service to maintain viable populations of all native wildlife species that live in the L TBMU, such as the California spotted owl and the black-backed woodpecker. In addition, the Sierra Club recommends strengthened forest-wide standards for protecting the forest habitat for these species. For example, the draft plan currently allows up to 90 percent of post-fire habitat to be logged, but unlogged post-fire habitat is needed by species such as the black-backed woodpecker, which has been designated as candidate for protection under the California Endangered Species Act. Therefore, we recommend that the LTBMU plan include forest-wide standards to maximize the protection of post-fire habitat from logging. The draft management plan includes vague and potentially weaker standards for closed canopy retention, even though closed canopy forest habitat is important for wildlife such as the California spotted owl. The Forest Service has demonstrated that it can enact clearer and stronger standards for closed canopy retention, as evident in the 2001 Sierra Nevada Framework. Accordingly, the Sierra Club recommends that the LTMBU plan include measurable standards for closed canopy retention that are at least as protective as the standards enacted under the 2001 Sierra Nevada Framework.

Response: Although there are situations following a fire in which removal of dead or dying trees would be required for public safety, abatement of long-term fuel hazards, ecological restoration, or to off-set restoration costs, the standard related to this resource has been revised to reflect the importance of this habitat to various wildlife species and the idea that a "one size fits all" approach isn't preferable. We have revised the standard to clarify that the needs of local wildlife associated with components of this habitat (e.g., snags) would be a key driver in developing restoration projects in burned areas. The revised standard does not have fire size thresholds or percentage retention targets because it is important to consider during project development the location of fire events with respect to public safety concerns, the quality of the burned habitat for species normally associated with burned forests, species present in the project area, and other driving resource needs (e.g., water quality).

It was determined that the 2001 Sierra Nevada Framework, as written, could not be meaningfully implemented. As a result, the Forest Service prepared the 2004 Supplemental Environmental Impact Statement (SEIS) and a Record of Decision (ROD)

was issued. The SEIS addressed the same management issues as the 2001 Framework but the approach adopted in 2004 was implementable region-wide. The current proposed revision to the Forest Plan addresses these same management issues but in a way that is relevant to achieving desired conditions specific to the LTBMU.

Responses regarding canopy retention, removal or large trees, and the creation of early seral stage openings can be found with responses to PC 74 (240), 216, 232, 87, and 25.

PC 73: The Forest Service should provide standards to prevent salvage logging of post-fire habitat.

PC 214: The Forest Service should increase required snag densities to support spotted owls and BBWO.

PC 243: The Forest Service should re-evaluate the standard for retaining snags in burned forest to ensure that habitat requirements will be met.

PC 287: The Forest Service should Change the DLRMP to require retention, through a forest-wide standard (not a guideline), of at least 90% of any moderate/high-severity burn areas which are created by fire, wildland or otherwise, outside of the Defense Zone, and retain the maximum possible amount of such habitat that can be retained in the Defense Zone while ensuring protection of homes.

PC 300: The Forest Service should include a standard that would retain all post-fire habitat outside the WUI.

Sample Comments: *"In light of the science clearly demonstrating the significant value of post-fire habitat to species like the back-backed woodpecker, the LTBMU Plan must include standards to protect this habitat and must do so in a way that is scientifically supportable. The only standard that thus far exists is the 10% standard, which, as already discussed above, is not supportable. Consequently, the Final Plan must include a scientifically supportable standard such as retaining all post-fire habitat outside the WUI." (PC 300)*

"Moreover, given that black-backed woodpeckers have an extremely close affinity with postfire habitat, specifically high-severity post-fire habitat, the best and only way to protect the species is to adopt standards that ensure the protection of post-fire habitat, especially mid to high severity post-fire habitat. And the only way to effectively do that is to protect all post-fire habitat." (PC 300)

"Again, the only way to ensure the viability of the species is to protect its habitat and that means protecting post-fire habitat from salvage logging. Thus, until a scientifically supportable standard regarding salvage logging is established, the Plan will not be adequate." (PC 300)

"To provide more meaningful protections for Black-backed Woodpecker populations, and the populations of the many wildlife species associated with post-fire habitat, we suggest the following changes to the DLRMP: • Change the DLRMP to require retention, through a forest-wide standard (not a guideline), of at least 90% of any

moderate/high-severity burn areas which are created by fire, wildland or otherwise, outside of the Defense Zone, and retain the maximum possible amount of such habitat that can be retained in the Defense Zone while ensuring protection of homes." (PC 287)

"The DEIS does not provide analysis of 1) what percentage of burned stands in areas less than 1,000 acres will be left; 2) how much planned burning in the Basin is likely to lead to burned forest habitat – i.e. large burned snags – that would be beneficial to the woodpecker; 3) how much and what quality burned habitat will likely result from Plan implementation; and 4) given the information in Nos. 1-3, whether the policy to retain only 10 percent of the burned forest in a large fire will provide adequate habitat for black backed woodpecker over time." (PC 243)

"We are deeply troubled by the lack of meaningful protections for snag forest habitat, and do not see any evidentiary/analytical basis in the DEIS for a conclusion that the 10% retention standard is remotely adequate to maintain viable populations; nor do we believe it is remotely adequate to maintain viable populations." (PC 243)

The emerging evidence indicates this to be the case for Spotted Owls, as data show that occupancy is harmed by logging (Seamans and Gutierrez 2007), the owls strongly tend to avoid mechanically thinned areas (Keane et al. 2011), and logging facilitates invasion of aggressive barred owls, which often out-compete Spotted Owls (Dugger et al. 2011). In contrast, mixed-severity fire, without post-fire logging, creates important suitable post-fire foraging habitat for Spotted Owls, and the owls preferentially select unlogged moderate-severity and high-severity fire areas for foraging (Bond et al. (2009a). Mixed-severity fire, with an average of about 32% high-severity effects in home range core areas, does not reduce occupancy of Spotted Owls (Bond et al. 2012 in press). Similarly, both pre-fire and post-fire logging harm Black-backed Woodpeckers, while fire alone and very high snag densities in unburned forest (snag densities at levels similar to those found in moderate/high-severity burn areas) provide excellent suitable habitat (Goggans et al. 1989 [Table 8, showing almost complete avoidance of salvage logged areas among Black-backeds otherwise nesting in unburned forest with very high snag density from beetle mortality], Hanson and North 2008, Hutto 2008, Siegel et al. 2012a, Siegel et al. 2012b [finding Black-backed selecting areas of highest post-fire snag basal area, while, in Fig. 10, almost completely avoiding salvage logged areas]). The Forest Service's own data indicates that higher-severity post-fire conditions create unique and ecologically important habitat (Burnett et al. 2010, Burnett et al. 2011), and such habitat is not mimicked by mechanical thinning or clearcutting (Swanson et al. 2010). With regard to active snag creation, scientific data indicates that average snag densities in the natural condition on the LTBMU is about 8 snags per acre over 16 inches in diameter at breast height in unburned forest (Barbour et al. 2002), and Verner et al. (1992) recommend at least 8 large snags per acre for Spotted Owl foraging habitat, equating to at least 20 square feet per acre of large snag basal area (and more for nesting habitat), and successful Black-backed Woodpecker nesting is associated with considerably higher snag densities than this—at least several dozen large snags per acre (Goggans et al. 1989, Bonnot et al. 2008, Bonnot et al. 2009, Siegel et al. 2012b). The Forest Service's own recent technical report concludes that natural mortality levels in unburned conifer forests of the Sierra Nevada are about 8-14% (North 2012, p. 18), which equates to about 10

large snags per acre on the LTBMU, given the DEIS's estimate of an average of about 100 trees per acre over 15 inches in diameter on the LTBMU (DEIS, p. 3-298). In contrast, there are only about 5-6 snags per acre on average currently on the LTBMU in unburned forest (DEIS, p. 3-296). Current science shows that higher snag densities do not result in higher fire severity when fire occurs (Bond et al. 2009b) and, in fact, will tend to result in lower fire severity (Simard et al. 2011), so creating additional large snags in the context of active ecological management is not inconsistent even with management in the WUI. (PC 214)

"Allows salvage logging, the removal of large trees over 30 inches in diameter, and the creation of large openings in forest stands;" (PC 73)

Response: For response to comments regarding the assessment of the Black-backed woodpecker (BBWO) population status (PCs 300 and 243), please see response to comments #283 and 275. For response regarding the removal of trees greater than 30 inches in diameter and creation of early seral openings, see response to PCs 216, 232, 87. For the evaluation of viability, please see FEIS Appendix E (Volume III).

We agree that snags in burned habitat are an important habitat component of the LTBMU landscape and the originally proposed guideline was inadequate at clearly demonstrating this value. Although flexibility for retention of snags in burned forest habitat increases with distance from the WUI, including the Defense Zone, the level of habitat restoration is ultimately dependent upon specific conditions that can't be predicted until a wildfire occurs. Therefore, following a review of our proposed guideline for post wildfire habitat restoration, we concluded that a one-size-fits- all approach isn't feasible given the variability in fire effects, location and size of fires, suitability of pre-burned habitat for burned snags associated wildlife after fire, public safety needs, and generally meeting our multiple use mandate. Consequently, we have revised the standard related to possible restoration projects in post-fire habitat to focus more on the process of resource prioritization/consideration when identifying the need for restoration and developing restoration projects rather than simply applying a quantitative retention level that may not be supportable for all post-fire landscapes.

The revised standard clarifies that the needs of local wildlife associated with components of this habitat (e.g., snags) would be a key driver in developing restoration projects in burned areas. The revised standard does not have fire size thresholds or percentage retention targets because it is important to consider during project development the location of fire events with respect to public safety concerns, the quality of the burned habitat for species normally associated with burned forests, species present in the project area, and other driving resource needs (e.g., water quality and accelerated restoration of burned areas to pre-habitat conditions for species at risk, e.g. Spotted Owl).

We have used the best available science when preparing the Revised Forest Plan and our analysis of effects, but also taking into account that we are a multiple use agency and are mandated to manage the landscape to meet these varied needs.

The Forest Plan is not the appropriate place to assign acceptable mortality levels from planned burning activities as a one-size-fits all approach because this is a site specific prescriptive decision and influenced by numerous factors, including the vegetation types which have different growing conditions and fire return intervals. Therefore, it is not possible to predict quantitatively or qualitatively how much planned or wildfire burning would result in habitat with large burned snags and the quality of this habitat. This level of detail would be understood only at the project level when site-specific conditions, as well as the purpose and need of the project, are understood.

PC 275: The Forest Service should maintain viable populations of MIS species.

PC 283: The Forest Service should clarify the relationship between population distribution and population viability of MIS species.

Sample Comments: *"The DEIS's conclusion that "current data indicate that the distribution of black-backed woodpecker populations in the Sierra Nevada is stable" (DEIS, p. 3-299) is essentially meaningless for assessing the conservation of the species. A species can be well distributed in an area but nonetheless be at severe risk of negative impacts. It is the DEIS's job to take a "hard look" at the negative impacts of the Draft Plan irrespective of whether distribution is "stable" and that did not occur." (PC 283)*

Forestwide Standards Fail to Ensure Viable Populations of Black-backed Woodpeckers As discussed above, the DEIS and DLRMP utterly fail to ensure viable populations of the Black-backed Woodpecker on the LTBMU, and fail to determine the quantity and quality of habitat necessary to maintain at least viable populations on the LTBMU planning area, contrary to the requirements of the 1982 NFMA regulations. Because of this, and because of the abysmal lack of protections for suitable Black-backed Woodpecker habitat in the DLRMP (e.g., 90% removal of suitable habitat allowed, and no limited operating periods), the Forest Service's proposed management poses a threat to the viability of this species on the LTBMU and in the Sierra Nevada." (PC 275)

Response: The data for Black-backed Woodpecker indicate a stable population distribution in the Sierra Nevada in which black-backed woodpeckers continue to be distributed across the 10 National Forests in the study area (ranging from the Modoc National Forest in the north to the Sequoia National Forest to the south).

As described in the MIS section of the FEIS (Chapter 3, 3.4.14), distribution population monitoring tracks changes in the distribution of each MIS at the Sierra Nevada scale by monitoring the changes in the presence of the species across a number of sample locations, including sampling on the LTBMU. It is designed, in conjunction with habitat monitoring, to meet the regulatory requirement for MIS that "population trends of the management indicator species will be monitored and relationships to habitat changes determined" (1982: 36 CFR 219.19(a)(6)). This monitoring tracks the changes in the distribution of an MIS by monitoring the changes in the presence of the species across a number of sample locations to determine if: (a) the MIS continues to be distributed across the suitable habitat within its range, and (b) there is a stable population distribution in the Sierra Nevada. At the scale of the Sierra Nevada, changes in the distribution of species

represent ecologically significant information on the status and change of populations (USDA Forest Service 2001, Appendix E Table E-5, p.E-22). For a discussion of viability, please see Appendix E. Monitoring of viability is not required for MIS.

PC 54: The Forest Service should use the Forest Plan to explain the importance of post fire habitat.

PC 80: The Forest Plan must describe importance of burned habitat.

Sample Comments: *"Finally, it is surprising that the Forest Service is not using the Plan as an opportunity to educate the public about the importance of post-fire habitat, including the importance of post high-severity fire habitat." (PC 54)*

"The Forest Plan is an important opportunity to explain the ecological and evolutionary aspects of post-fire habitat so that the public will understand why such forest is to be protected and conserved (and to be clear, it is not just the black-backed woodpecker that relies on or finds sanctuary in post-fire habitat – many other species do as well). This is especially so given that a) Forest Plans only occur every 15 years or more, and b) Forest Plans represent the overarching guidance for the Forest and therefore should contain the educational information the public and decision-makers need to understand why particular habitats are important." (PC 54)

"For instance, the black-backed woodpecker relies on forest areas which have been burned. There should be some commentary in your plan that points out this fact. The public needs to be aware of the importance of burned forests for species such as this woodpecker. I see no language in your plan about this consideration." (PC 80)

Response: We agree that post fire habitat is one of many important habitats on the LTBMU and the Plan could benefit from additional clarification about the value of fire and burned habitat. Currently, the desired conditions for Forest Vegetation, Fuels, and Fire Management in the Plan describe the desire to reestablish fire (and other important ecosystem processes) in various habitat types within the Basin and achieve natural fire return intervals for each forest vegetation type. We have also revised the standard and guideline regarding post wildfire restoration projects to clarify that the needs of local wildlife associated with snags and other components of this habitat would be a key driver in developing restoration projects in burned areas.

Although BBWO show a strong association with recently burned forest and occur in highest density in these habitat types, BBWO also occur in unburned forest types (Bond, Siegel, and Craig 2012; Fogg et al. 2012; Siegel et al. 2013).

PC 129: The Forest Service should have a specific wildlife measures for at-risk wildlife such as the Black-backed woodpecker.

PC 269: The Forest Service should include a standard that says - "NO logging of burned forest habitat from April through Sept., while the Black-backed woodpecker is nesting."

Sample Comments: *"These are very serious issues that should be fully addressed in the revised DEIS and Plan with an alternative with clear and enforceable standards that maintain all large snags and logs to benefit the recovering ecosystem, limit the amount of entry into the burned landscape only to manage areas where hazard trees may hit homes or roads, maintain strict water quality protections to limit erosion including clear limits on over-snow logging and slash production in or near streams, and add specific wildlife measures for at-risk wildlife such as the Black-backed woodpecker. (PC 129)*

"The Draft Forest Plan, as now written, does not have enforceable standards to ensure the survival of species in the Lake Tahoe Basin Management Unit (LTBMU) National Forest. This is not acceptable! After the experience this summer, when the Forest Service was originally set to kill Black-backed Woodpecker chicks in their nests, there is clearly a need for enforceable standards to protect that species and others! For this reason there should be an enforceable standard that states: "NO logging of burned forest habitat from April through Sept., while the Black-backed woodpecker is nesting."" (PC 269)

Response: As an MIS, the Black-backed woodpecker represents a suite of species that use snags in burned forest habitat. The Black-backed woodpecker is not federally listed or a Forest Service Species of concern. Therefore, we do not think it is appropriate to assign species-specific protection measures, including a Limited Operating Period (LOP), for a species that is representative of a larger group (and a habitat component) and is not federally listed. Instead, we have revised the standard and guideline in the Plan related to post-wildfire restoration projects to clarify the process that would be undertaken in planning for these types of projects and evaluating the need for these projects (*see* Revised Forest Plan, Part 3: Design Criteria/3.1 Ecological Sustainability/Biological Resources Standards and Guidelines/Conservation of Species and Habitat). In addition, the revised standard and guideline clarifies that the needs of local wildlife associated with this habitat would be a key driver in developing restoration projects in burned areas.

PC 289: The Forest Service should add a standard to the DLRMP stating that, within any 5-year period, at least 4,000 acres of suitable Black-backed Woodpecker habitat would be maintained on the LTBMU, through a combination of managed wildfire, mixed-intensity prescribed fire, and active snag creation.

Sample Comment: *"Add a standard to the DLRMP stating that, within any 5-year period, at least 4,000 acres of suitable Black-backed Woodpecker habitat would be maintained on the LTBMU, through a combination of managed wildfire, mixed-intensity prescribed fire, and active snag creation."*

Response: It is infeasible to maintain 4,000 acres of burned forest habitat for the Black-backed woodpecker within any five year period as suggested. The LTBMU is a small unit with insufficient land to sustain this level of burned forest without compromising the health of other habitat types on the landscape. The LTBMU manages approximately 60,000 acres of land outside the Wildland Urban Interface (WUI) and Desolation Wilderness. Working under the conservative assumption that all of this land is in the appropriate seral stage for Black-backed woodpecker prior to burning, all of this land would have been consumed by moderate to high severity fire within 75 years if 4,000

acres were burned every 5 years, leaving the LTBMU with a severe paucity of the multitude of other habitat types and seral stages, including late seral forest. Secondly, where prescribed burns are used, management can expect up to 10-20% mortality and these activities are not purposefully designed to create high severity burned forest habitat. Wildfire, the other source of habitat creation for Black-backed woodpecker, cannot be predicted to achieve this standard. As a multi-use forest, the proposal to maintain 4,000 acres of burned forest habitat within any five-year period could feasibly limit other uses on NFS lands. The LTBMU also supports a variety of TECPS species (e.g., plants, fish, amphibians, etc.) that exhibit a variety of habitat preferences beyond those of burned forest habitat.

Although maintaining 4,000 acres of moderate to high severity burned forest habitat every 5 years is infeasible, the Forest Plan includes a number of original, new, and revised strategies and standards and guidelines that are intended to provide burned forest habitat and important features such as snags and coarse woody debris. We have also revised the standard and guideline regarding post wildfire restoration projects to clarify that the needs of local wildlife associated with this habitat would be a key driver in developing restoration projects in burned areas.

PC 504: The Forest Service should recognize the value of burned forest (snag) habitats and should be actively managing for this habitat type.

Sample Comments: *"Change the DEIS and DLRMP to say that prescribed fire would have less than 20% mortality in the Defense Zone, but could and should sometimes have higher levels of tree mortality outside of the Defense Zone in order to provide habitat (which would not be open to post-fire logging) for Black-backed Woodpeckers and other post-fire associates. The Forest Service should be actively managing for this extremely important, rare and highly bio-diverse habitat type."*

Response: See response to comment PC 80 for a discussion of the importance of burned forest habitat.

The range of acceptable fire conditions are described in the desired conditions for each of the major vegetation types. The desired conditions drive the Forest Plan. For example, the desired condition for the function of white fir-mixed conifer vegetation type states the following:

"Fire and fire surrogates approximate a fire return interval of 10-30 years in white fir-mixed conifer stands. Frequent, low to mixed severity fires are characteristic in this type, including throughout spotted owl and goshawk PACs and HRCAs. Stand-replacing fire occurs on an average of 15% of burned acres, with occasional more severe fires driven by extreme weather. Fires burn primarily on the forest floor, rarely spreading between canopy trees as active crown fire. Crown torching leads to forest openings and generation of large snags. Except in rare events, contiguous areas of crown mortality after fire are less than 10 acres in size. High severity patches are principally confined to higher density, closed canopy stands and/or warm, upper slopes. Where this type overlaps the WUI, fires occur as surface fire due to fuels treatments. We can assume that if conditions

are not favorable to those types of fire effects described in desired conditions, then we will put out."

In response to the comment regarding the lack of analysis of effects due to the loss of snag habitat since the 19th century, we have based our analyses of existing conditions on the current habitat conditions for all sensitive species and associated habitat.

Late Seral Habitat and Species

PC 74: The Forest Service should provide standards to protect the dense forest habitat that owls and martens rely upon, similar to the quantitative standards in the 1988 Plan, and analyze for effects from lack of quantitative standards in the DEIS.

PC 218: The Forest Service should include canopy cover requirements for areas outside of PACs and HRCAs.

PC 221: The Forest Service should provide standards to protect the dense forest habitat that owls and martens rely upon.

PC 249: The Forest Service should clarify the analysis of impacts on late seral-dependent species.

Sample Comments: *"In regard to California spotted owls and martens, the DEIS fails to appropriately address the adverse consequences to the late-seral closed-canopy forest these species rely upon. For instance, the 1988 Forest Plan (p. IV-27) contained specific quantitative protections for management of old forest habitat. Much research has transpired since then showing just how important closed canopy forest is for spotted owls and martens and yet there are no protections for such habitat in the Draft Plan or DEIS. Unlike the 1988 Plan, there are no specific requirements to protect old-growth forest, and there are not any requirements to retain minimum basal area levels associated with suitable habitat (Verner et al. 1992) in Spotted Owl Protected Activity Centers (PACs) or Home Range Core Areas (HRCAs) (see Draft Plan, pp. 96, and 100- 101). Moreover, the Draft Plan (pp. 100-101) does not specify minimum canopy cover retention requirements for these Spotted Owl areas." (PC 218)*

"The DEIS does not take a hard look at the impacts of the draft Plan on wildlife species utilizing late seral habitats such as the spotted owl, marten and goshawk." (PC 249)

Response: See response to PC 216, 232, 87, and 25 for clarification on the approach for removing/killing/girdling ≥30 inch diameter trees, creation of early seral openings, and removal of the Old Forest Emphasis Area Management designation in the proposed Plan. See response to PCs 283, 300, 287, 243, 214, and 220 for post fire restoration.

The desired conditions, strategies, objectives, and standards and guidelines described in the Plan are intended to maintain and enhance the suitability of habitat for all TECPS species (and MIS habitat), including marten and the California spotted owl. The approach in the proposed Plan does not assign quantitative limits on canopy cover and/or basal area retention because we believe this one-size-fits-all approach won't allow us to achieve our desired conditions for forest vegetation, and protect and improve the habitat

for sensitive species in the LTBMU. Although we are proposing an approach that allows for flexibility, we believe the management direction is appropriate and adequate to conserve late seral closed canopy habitat for associated species. However, we have added new and revised some current standards and guidelines to clarify the limitations on reducing canopy cover and basal area (in and outside of PACs) and clarify that current late seral closed canopy stands would be retained outside the WUI (and inside the WUI where fire behavior objectives can be met). These measures described in the Plan are not the sole set of protection measures for sensitive species and associated habitat. Additional resource protection measures based on site-specific resource needs and new available science would be incorporated as needed into projects as they are developed. All projects would be evaluated through the NEPA process in which a wildlife biologist would be part of the team and public comment is solicited. Furthermore, although the Plan limits the scope of activities, such as the creation of openings, we do not expect to reach these limits on every project.

We acknowledge that the Plan could benefit from additional language that clarifies our intent to protect late seral closed canopy habitat (e.g., dense canopy cover and large trees) for associated wildlife species without incorporating one-size-fits-all quantitative parameters at the Plan level. See revised and new strategies and standard and guideline portions of the following sections: Forest Vegetation, Fuels, and Fire Management Program Strategy and Biological Resources. We have also increased the canopy cover desired condition for goshawk and spotted owl PACs to 70% cover. Although the guidelines for PACs allow reduction of canopy cover below this desired condition, these circumstances would occur only to improve habitat over the long term by restoring structure and/or reducing risk from beetle outbreak and catastrophic fire, and would be evaluated in a project-specific basis. We have incorporated a standard that across a late seral closed canopy stand, treatments shall not reduce the canopy of the dominant and co-dominant trees by more than 10%. We agree with the commenter that spotted owl and marten are not simply associated with dense late seral closed canopy habitat but with certain features of these habitats such as snags and coarse woody debris (understory complexity) – both of which are the subject of revised and new standards and guidelines that protect and promote creation of these features on the landscape. We believe these revisions to the Plan have allowed us to be more transparent in our intention to conserve late seral closed canopy habitat for sensitive species like the spotted owl and marten in the LTBMU.

Regarding the results of the SPECTRUM model, we incorrectly stated in the DEIS that late seral closed canopy would decrease as a result of thinning this seral stage to create late seral open canopy habitat. We also incorrectly interpreted the model output in the DEIS. We have reviewed and clarified the model data source and parameters (prescriptions, disturbances, restrictions) and can now more accurately explain the model output. The model output indicates that during a fifty year period following Plan implementation (excluding decade 1) late seral closed canopy forest for all of the major forest types combined would not change from current condition under Alternatives B and E. We have provided additional clarifying information for the SPECTRUM model in sections 3.4.11 (Forest Vegetation), 3.4.14 (Management Indicator Species), and 3.4.23 (Terrestrial Wildlife Species and Habitat) of the FEIS. The FEIS analysis for the

potential effects of vegetation treatments, fires, and post-fire treatments has been revised to clarify the potential effects of treatments proposed under the various alternatives.

We agree that spotted owl PACs in the Basin are comprised primarily of what is considered "moderate capability" nesting habitat (including 4M) but have no data to suggest that this influences reproductive success since PACs with moderate capability habitat have produced young. We also have no data to explore if this habitat is selected in proportion to its availability on the landscape or if owls are showing a preference for this habitat type.

Please refer to the monitoring plan for additional clarification about data that would be collected to monitor the effectiveness of the Plan's elements.

PC 265: The Forest Service should monitor potential impacts from management activities to marten and goshawk.

Response: The Forest Plan Monitoring Plan (Appendix A) includes several monitoring questions which would provide information regarding potential impacts from management activities to marten and northern goshawk habitat.

PC 261: The Forest Service should consider how their literature citations for marten are applied.

PC 262: The Forest Service should acknowledge the potentially significant effect on marten population stability that may occur due to the Forest Service's lack of knowledge of where den sites are located.

Sample Comments: *"the DEIS does not provide an adequate discussion of the west-side marten population. No information is given, for example, describing the importance of different habitat types to this population. Slauson's review (2008) of past marten monitoring demonstrates that a considerable portion of the west-side population in the Basin is utilizing mixed conifer forest. See Slauson (2008), Figure 6. However, the DEIS does not contain a discussion of what type of habitat marten are using in this forest in terms of stand density, canopy cover or class size. The DEIS also does not describe the importance of the west side population to regional north south connectivity. See Slauson, 2008." (PC 261)*

"Third, the DEIS fails to take a hard look at how the loss of canopy coverage and complex forest may adversely affect marten. As discussed, the DEIS's "impact analysis" comparison between the loss of "closed canopy" versus "open canopy" late seral forest is confusing in that it does not distinguish between marten foraging (where marten may utilize lower canopy habitats) and denning and resting habitat where canopy coverage and stand density must be high. As discussed, open canopy forests may be reduced all the way down to 10 percent canopy. The DEIS does not contain a meaningful assessment of this impact. … As discussed, a substantial portion of the west-shore Tahoe marten population appears to be inhabiting late seral, mixed conifer forest, precisely the type of habitat where higher canopies are required. Yet the DEIS simply assumes that this

marten population will remain stable despite the loss of quality overstory and understory habitat." (PC261)

"In PSW-GTR-203 Alan Taylor (2007) recommends that ecological restoration of the Lake Tahoe Basin should focus on reduction in basal area of mostly smaller trees and the reintroduction of frequent fire in the vegetation types of the Lake Tahoe Basin. The recommendation is based on the accepted science that this path is best suited to adequately reduce fire risk, while minimizing impacts to late seral species." (PC 261)

"The DEIS and BE proceed on the assumption that 4M habitat can offer moderate capability reproductive habitat for marten, without any on the ground information. Not only is this assumption contrary to the studies cited above, the Forest Service has no information about the reproductive success of marten in Tahoe, and thus can make no conclusions regarding the adequacy of existing or future habitat condition for this species. See Green 2007 ("presence-absence data cannot identify the roles that different habitats and geographic areas play in regional population demographics.")" (PC 261)

"It is well known in the literature that marten denning in forested habitats require high canopy, late seral habitat. See Spencer et al. 1983; Hargis and McCullough 1984; Ellis 1998; Ruggiero et al. 1998; Bull and Blumton 1999; Bull and Heater 2000; Bull et al. 2005; Slauson and Zielinski 2008) Denning and resting habitat are described as follows: - Late successional, old forests; - CWHR 5D and 6; - Canopy cover of at least 50 percent, mostly 60 percent and greater on Westside Sierra Nevada; - Presence of large snags and logs on ground (coarse woody debris)" (PC 262)

Response: We acknowledge the request for greater information about the west shore habitat and regional connectivity for marten. We have supplemented our information in the FEIS and Biological Evaluation (BE) regarding the west shore marten population to more clearly emphasize the importance of this area to marten from a regional connectivity perspective and also provide recent information from a publication by Spencer and Rustigian-Romsos of Conservation Biology Institute (2012). The publication results (modeling) indicate that the west shore of the Basin is part of a corridor but is not a sole corridor. Lastly, we would like to reiterate that the Plan does not prescribe treatments nor assign locations for such treatments. Therefore, the concern for the west shore habitat is noted, but we are not in a position to evaluate effects from specific actions to this exact portion of the LTBMU since it is not yet known where vegetation treatments, or any potential projects, would occur.

We acknowledge the request for more information regarding marten habitat associations. This information is provided in detail in the Biological Evaluation (BE) for the Plan. We have also included in the FEIS the information that marten in the LTBMU have been found to use mixed conifer and also pine habitat. With reference to the commenter's concern about the appropriateness of 4M habitat for marten, Moriarty et al. (2011) (Table 1) indicates that various 4M habitat types (lodgepole pine, montane riparian, red fir, subalpine conifer, and white fir) are considered "high quality habitat" for marten. We have found marten denning with kits in 4M habitat in the LTBMU. Marten have been found elsewhere in habitat types not normally associated with their normal features such

as closed canopy and complex understory (Green 2007). Regardless, our standards and guidelines are focused on the protection and perpetuation of late seral closed canopy habitat and key habitat elements (e.g., snags, coarse woody debris), not on any one particular CWHR type. Moreover, our standards and guidelines prioritize the maintenance of connectivity of late seral forested habitat for associated species.

Regarding the "loss" of 5D habitat and effects to marten, we have added a table (3-35) to Chapter 3 section 3.4.11 Forest Vegetation of the FEIS that indicates that 5D does not comprise as much of late seral closed canopy habitat on the LTBMU as 5M and 6 habitat types under current conditions. Regardless, we incorrectly interpreted the model output in the DEIS. We have reviewed and clarified the model data source and parameters (prescriptions, disturbances, restrictions) and can now more accurately explain the model output. The model output indicates that during a fifty year period following Plan implementation (excluding decade 1) late seral closed canopy forest (of which 5D is a part) would not change from current condition under Alternatives B and E. The model output indicates that 5D habitat would increase under Alternatives B, C, and E in all of the major forest types. We have provided additional clarifying information for the SPECTRUM model in section 3.4.11 (Forest Vegetation) of the FEIS. We have also described predicted trends for the seral stages based on model output in section 3.4.23 (Terrestrial Wildlife) of the FEIS and in the B E for Terrestrial Wildlife Species.

We acknowledge the concern regarding marten habitat conditions and appreciate the referenced information. To clarify, the Plan does not propose a "loss of quality overstory and understory habitat", "higher levels of logging", or "extensive logging." Spatially, the locations and scope of vegetation treatment projects are not assigned by the Plan so whether vegetation management treatments would be extensive or not is not knowable at this level of planning. The Plan does not prescribe treatments, including those that would modify the canopy or understory in any way. Likewise, the Plan does not propose reducing canopy cover by any specific percentage (commenter refers to opening a canopy down to 10% cover). If the commenter is concerned about late seral closed canopy habitat, reducing the canopy to 10% (the percent suggested by the commenter) would mean that that habitat would no longer be considered late seral habitat and this approach is simply not consistent with achieving our desired conditions as stated in the Plan. If the commenter is referring to the creation of early seral stage habitat which could have more open canopy conditions, the Plan and FEIS are clear that early seral stages would not be created in late seral habitat and that where there are concerns about potential for occurrence of late seral species in mature mid seral stands that could be influenced by early seral creation, these conditions would be evaluated on a project-specific basis. We understand that there may be some confusion related to the creation of early seral stages and have clarified in the guidelines that wildlife concerns, habitat connectivity, proximity to late seral forest, and other factors potentially influencing sensitive species (e.g., marten) would be considered during project development (*see* Part3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management Standards and Guidelines).

We agree with the commenter that diseased trees can be important resting and denning structures for marten. Unfortunately, we are unable to locate where this statement was

made in the FEIS. We also believe that the guideline in the Plan referring to the limited exceptions (including disease) under which a tree greater than 30 inches in diameter could be removed may have been ambiguous and we have revised this guideline. We have also clarified in our assumptions in the FEIS (Terrestrial Wildlife section, 3.4.23) that some of the circumstances under which a tree greater than 30 inches in diameter may be removed specifically include wildlife habitat objectives.

We acknowledge the commenter's concern regarding level of marten den information. The Plan focuses on the protection of habitat because the USFS manages habitat. The Plan includes standards and guidelines for the protection of late seral closed canopy habitat, snags, coarse woody debris, and other key habitat elements that are considered important to marten. We have added a number of standards and guidelines for the protection of late seral closed canopy habitat (*see* Part 3: Design Criteria/3.1 Ecological Sustainability/Biological Resources Standards and Guidelines/Conservation of Species and Habitat and Forest Vegetation, Fuels, and Fire Management Standards and Guidelines). We believe that our desired conditions, objectives, strategies, and standards and guidelines in the Plan will assist in maintaining and enhancing the highest quality marten habitat, including resting and denning habitat. Furthermore, the Plan emphasizes the protection of habitat connectivity which is critical to the maintenance of suitable marten habitat since this species is known to be highly sensitive to habitat fragmentation.

PC 241: The Forest Service should protect marten dens and know where dens are located, and have updated information on the health of the marten population in the LTBMU.

Sample Comments: *"One of the findings of Slauson's analysis is that, due to the lack of marten on the east side or at lower elevations on the west side of the Sierra, Tahoe's west-side marten population is a critical population segment connecting marten populations in the south to the dwindling population in the north. See Slauson (2008): "The west shore population represents the only known contiguous linkage for marten populations to the north and south of the Lake Tahoe Basin.""*

"Fragmentation is considered detrimental to marten occurrence (Wildlife BE p.64). This higher level of fragmentation reflects existing conditions on the LTBMU and the higher potential for increased fragmentation under Alternatives B and C for the LTBMU (BE p. 104). One of the most critical aspects of marten biology are den sites and their surrounding habitat, which comprise the reproductive habitat whose quality will determine whether marten remain a viable species in the Basin."

"To protect marten den sites, the 2004 SN Forest Plan Amendment (Record of Decision, p.39) (USDA 2004a) required a 100 ac buffer around all marten dens with the protection of the highest quality habitat surrounding den site in CWHR types 6, 5D, 5M, 4D, 4M in descending order of priority, based on availability, provide highest quality habitat for marten. This den buffer represents the best thinking on protection of important areas for marten and is the Regional direction. The draft Plan contains no protection for marten den sites. Even more problematic, the Forest Service does not know where the den sites are and thus are in no position to be able to protect these habitats."

Response: For a discussion of the updates to the FEIS based on the importance of the west shore for marten, see response to PC 261 and 262. For a discussion of the approach regarding knowledge of marten den locations, see response to PC 261 and 262. For viability, please see Appendix E. The effects of ski areas on marten are discussed in the FEIS.

We agree with the commenter's concern about ambiguity in marten den protection in the Plan. In addition to our LOP (Appendix E of the FEIS), which limits activities near dens during the breeding season, we have included a standard for a protective buffer around a marten den site *(see* Part 3: Design Criteria/3.1 Ecological Sustainability/Biological Resources Standards and Guidelines/Conservation of Species and Habitat).

We would like to clarify that we do not propose to "conduct intensive logging in late seral marten habitat." We suggest that the commenter refer to the desired conditions (including photographs) for each the major forest types described in the proposed Plan (*see* Part 1: Vision/1.2 Desired Conditions/Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management) to more fully understand that intensive logging, particularly of late seral habitat, would be counter to achieving our desired conditions. We also disagree that any vegetation management activities would occur "without any knowledge of how marten – or the most critical marten habitat – is being affected." The Plan does not assign specific management activities and does not assign specific locations for activities. This type of decision (i.e., what would be done and where) would be made on a project-specific basis when the specific resource needs, and potential effects, are more fully understood. The FEIS does describe potential effects of the proposed Plan and the various alternatives on marten habitat given the suite of potential activities that could occur. The FEIS and BE have been revised to further clarify the potential effects on marten, taking into account revisions that have been made to our standards and guidelines related to the protection of den sites and late seral habitat, structural features associated with this habitat, as well as connectivity of late seral habitat. Refer to the following sections of the Revised Forest Plan (Volume II) to view the original, revised, and new standards and guidelines: Part 3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management Standards and Guidelines and Biological Resources Standards and Guidelines/Conservation of Species and Habitat.

We have used for our baseline condition and effects analysis the most recent and best available knowledge of martens in the Basin that we have at this time. We have incorporated additional science for marten threats and trends in the Sierra Nevada that has become available since the publication of the DEIS into the BE and FEIS. We also continue to interact with Keith Slauson (PSW researcher who has conducted extensive work on marten in the LTBMU) regarding the state of the marten population in various portions of the Basin. This new information has been added to the species discussion in the FEIS and BE.

PC 260: The Forest Service should consider the connection between the loss of viable marten populations in the north and intensive logging.

Sample Comments: *"The DEIS fails to take a hard look at the plan's impacts on marten in several ways. First, the DEIS does not contain a meaningful description of the marten's present imperiled situation in the northern Sierra Nevada or its causes. As discussed above, marten have largely disappeared from the Plumas National Forest – where considerable logging under the QLG plan has occurred – and most recently have disappeared from the Sagehen Experimental Forest, as described by Moriarty, 2009 & 2011. The DEIS barely mentions these declines. See DEIS, p. 3-294: "detection rates have decreased in at least some localized areas (e.g., Sagehen Basin area of Nevada County)." The DEIS also does not conduct any analysis regarding the likelihood that logging proposed for the Tahoe Basin may have similar results in causing the loss of a viable marten population. As Moariarty (2011) describes: The most noticeable decline in marten detections at SEF occurred between 1983 and 1990. During that period, 39 percent of the forested habitat in SEF experienced some form of timber harvest, including 11 percent harvested with clear-cut or shelter-wood methods and 28 percent harvested with salvage sales (Fig. 5). As a result, we estimated that the percent cover of high quality marten habitat in SEF declined from approximately 27 percent in 1978 to 15 percent by 1990. A number of other studies suggest that martens tend to disappear from an area after the percent of total forest cover is reduced below 45– 75 percent (Hargis et al. 1999, Potvin et al. 2000, Fuller 2006, Webb and Boyce 2009). Sagehen Experimental Forest currently falls within this range as 42 percent of the marten habitat in SEF changed from a suitable to unsuitable class from 1978 to 2007. The result of the DEIS' lack of discussion is that no connection is made between the loss of viable marten populations in the north and intensive logging."*

Response: We acknowledge the concern about the regional status of marten. First, we would like to clarify that the cause of the loss of marten distribution throughout their range is not clear (Zielinski 2013). Only in the case of the decline at Sagehen Experimental Forest (SEF) has a correlation been considered plausible – habitat fragmentation from harvest activity (Zielinski 2013), particularly salvage logging and clear cut or shelterwood harvest (Moriarty et al. 2011). We should note that SEF is an experimental forest where treatments occur in close proximity to one another. The proposed plan provides standards and guidelines to protect late seral habitat as well as connectivity between them.

We realize that there could be challenges associated with balancing the need to move the major forest types towards desired conditions, protect sensitive resources (e.g., wildlife, fish, botanical, cultural), maintain access and opportunities for public use as part of our multi-use mandate, protect water quality, and reduce the risk of severe wildfire near our communities and in our mature stands. Therefore, our standards and guidelines in the Plan have focused on the protection of late seral closed canopy habitat and key elements within this habitat type (e.g., denning and resting features, snags, coarse woody debris), as well as connectivity of late seral habitat. These are not the sole set of protection measures, additional measures that could be developed and implemented on a project-specific basis. We have added new standards and guidelines and revised a number of our current standards and guidelines to be clearer about our intentions to protect habitat for late seral species. See the Revised Forest Plan (Volume II), Part 3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management Standards and

Guidelines and Biological Resources Standards and Guidelines/Conservation of Species and Habitat

PC 296: The Forest Service should base general forest prescriptions on the wildlife that are occurring at treatment sites.

Sample Comments: *"Conversion from mid to early seral stage forest will decrease the prey base for American marten, goshawk and owls and mesocarnivores that compete within an unbalanced and fragmented trophic environment. This also has the potential to eliminate corridors for the sensitive wildlife species and decrease limited habitat for forest bats. The general forest prescriptions need to be based on wildlife that are occupying the treatment sites proposed for treatment."*

Response: Agreed. Prescriptions are outside the scope of the Forest Plan but would be developed on a project-specific basis and take into account, through the efforts of IDT members during project development under NEPA, the presence of sensitive wildlife species and suitable habitat in the project area. At the time of project-development, additional resource protection measures beyond those included in the Plan, and based on the needs of sensitive wildlife and habitat types and based on new available science, may be incorporated into the project design.

PC 82: The Forest Service should analyze how the effects of the exceptions to the 30" DBH requirement would impact wildlife.

Sample Comments: *"The Draft Plan (p. 96) allows numerous exceptions to the 30" dbh "limit" thus effectively swallowing the rule. And, in fact, the limit is not a limit, it is just a Guideline. The DEIS, however, contains no analysis of how this lack of a limit, or the fact that the exceptions are vast, will negatively impact the Forest, including wildlife like the black-backed woodpecker, California spotted owl and marten. Moreover, there is no analysis of how these negative impacts could be mitigated such as, at the very least, rather than removing these greater than 30" dbh trees, girdling and maintaining them in the Forest as snags, or as downed wood to provide for ecosystem value."*

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

PC 200: The Forest Service should ban logging during nesting season (April through August) and retain at least 80 percent of all recently burned forest in order to safeguard the Tahoe Basin's biodiversity.

Sample Comments: *"Your management plan for the Lake Tahoe region has a couple of flaws. First, it doesn't place any meaningful constraints on logging. Second, it doesn't adequately protect the wildlife indigenous to the area. In order to address these shortcomings, a revised plan would do the following: * ban tree logging during nesting season (April through August) * maintain 70 percent canopy cover in mature forest * retain at least 80 percent of all recently burned forest in order to safeguard the Tahoe Basin's biodiversity"*

Response: For response to comment regarding the retention of 80% of all recently burned forest, see response to PCs 220, 300, 287, 243, and 214. For response to the comment to maintain 70% canopy cover, refer to the response to PC 201.

The Limited Operating Periods (LOPs) that preclude treatment in habitat occupied by California spotted owl and Northern Goshawk during the breeding season are described in Appendix E (Volume III). The limited conditions that would allow these LOPs to be waived for vegetation treatments or prescribed fire during the breeding season are also described in Appendix E. As described in the Plan, no vegetation treatments would be allowed if the proposed activity would potentially disturb breeding as determined by a thorough biological review of the proposed treatment intensity, duration, timing, and specific site. Likewise, no prescribed fire would be used in PACs unless reproduction has not occurred in at least the previous three years and the PAC was not occupied during the previous breeding season.

PC 201: The Forest Service should maintain 70 percent canopy cover in mature forest.

Sample Comments: *"Your management plan for the Lake Tahoe region has a couple of flaws. First, it doesn't place any meaningful constraints on logging. Second, it doesn't adequately protect the wildlife indigenous to the area. In order to address these shortcomings, a revised plan would do the following: * maintain 70 percent canopy cover in mature forest"*

Response: We agree that dense canopy cover and large trees are key habitat features for spotted owls and that mature canopy cover (e.g., 70%) is strongly associated with owl occupancy in the literature. Spotted owl habitat in PACs and HRCAs, including key habitat elements, continues to be protected under the proposed Plan through the objectives, strategies, and standards and guidelines that assist in achieving the described desired conditions for these designated areas. We have revised a number of standards and guidelines related to late seral habitat as well as PACs to clarify the intention to protect late seral habitat where it occurs and PAC habitat. See revised and new strategies and standard and guideline portions of the following sections: Forest Vegetation, Fuels, and Fire Management Program Strategy and Biological Resources. We have also increased the canopy cover desired condition for goshawk and spotted owl PACs to 70%. Although the guidelines for PACs allow reduction of canopy cover below this desired condition, these circumstances would occur only to improve habitat over the long term by restoring structure and/or reducing risk from beetle outbreak and catastrophic fire, and would be evaluated in a project-specific basis. It should be noted that although we do have stands with ≥70% canopy cover, many of the forested areas in the LTBMU don't have as much

as 70% canopy cover in mature classes simply because of the geography and topography of the LTBMU (*see* Forest Vegetation section of the FEIS Chapter 3). Many of the PACs inhabited by spotted owls in the LTBMU have average canopy cover below 70%.

PC 256: The Forest Service should clarify Plan and DEIS with regard to thinning of PACs and HRCAs.

PC 270: The Forest Service should include the standard - "There should be NO logging permitted in CA Spotted Owl Protected Activity Centers."

PC 454: The Forest Service should prohibit logging in CASPO PACs.

Sample Comments: "Also, the Forest Plan does not provide adequate habitat protections for the California Spotted Owl. Both the CA Spotted Owl and the Black-backed Woodpeckers' main food supply is in burned forest areas. Therefore, another enforceable standard of the Forest Plan should be: "There should be NO logging permitted in CA Spotted Owl Protected Activity Centers."" (PC 270)

"Some studies suggest that owls enjoy habitat that has been moderately burned. This is because their prey thrives in burned areas. In contrast when there is logging, studies show that spotted owls often abandon those degraded areas. This should be interpreted to mean that no logging should be allowed in areas where spotted owls live and this policy should be incorporated in all US Forest Service Forest Plans." (PC 270)

"PLEASE DO NOT ALLOW LOGGING IN THE CALIFORNIA SPOTTED OWL PROTECTED ACTIVITY CENTERS." (PC 454)

the DEIS misrepresents the potential impacts of the draft Plan in its assertion that "[w]hile canopy closure limits would only be retained for PACs and HRCAs, emphasis would be placed on maintaining and improving late seral habitats." DEIS, p. 3-450 (emphasis added). As discussed, the draft Plan standard authorizes logging in PACs which are unoccupied or, even if occupied, where necessary to the overall fire objective in the WUI or to reduce threats to adjacent forested stands caused by "pathogens, insects, disease and/or wildfire" anywhere in the Basin. See Plan, p. 101 (SG71.) Further, there are no "standards" for logging in HRCAs, and even the guideline for HRCAs states that "reduction in existing canopy cover in PACs and HRCAs" may be allowed "whenever the PACs and HRCAs do not meet the desired conditions for the Plan or whenever a reduction would improve habitat conditions to meet life history needs of the species." See id. (SG69). The DEIS analysis completely ignores these gaping exceptions to maintenance of existing canopy cover, and thus does not meet NEPA's informational requirements. (PC 256)

"In regard to California spotted owls and martens, the DEIS fails to appropriately address the adverse consequences to the late-seral closed-canopy forest these species rely upon. For instance, the 1988 Forest Plan (p. IV-27) contained specific quantitative protections for management of old forest habitat. Much research has transpired since then showing just how important closed canopy forest is for spotted owls and martens and yet there are no protections for such habitat in the Draft Plan or DEIS." (PC 256)

Response: See response to PC 216, 232, 87, and 25 for clarification on the approach for removing/killing/girdling ≥30 inch diameter trees, creation of early seral openings, and removal of the Old Forest Emphasis Area Management designation in the proposed Plan. For response to comments regarding the retention of habitat for spotted owls and martens, please also see response to PC 74 (240).

The standard related to vegetation treatments in PACs (*see* Part 3: Design Criteria/3.1 Ecological Sustainability/Biological Resources Standards and Guidelines/Protected Activity Centers and Home Range Core Areas (PACs and HRCAs)) describes the limited circumstances under which vegetation treatments would be allowed in PACs. These circumstances include the following: when public safety is threatened within the Wildland Urban Interface (WUI), to reduce threats to the persistence of stands, or when vegetation treatments (which could include mechanical treatment, hand thin treatment, and/or prescribed fire) would improve habitat condition for spotted owl [or Northern Goshawk]. Strategic treatments would be developed by IDT members (including a wildlife biologist) through the NEPA process and include resource protection measures to protect habitat features and habitat function for these species, and insure that PAC habitat continues to achieve or trend towards desired conditions. Where PAC habitat is deteriorating for the species, restoration treatments would be designed specifically to improve or maintain habitat condition and function for the spotted owl [or Northern Goshawk]. For example, restoration of PAC habitat could be undertaken if owls [or Northern Goshawk] have not reproduced in the previous three years, the PAC is not occupied and either desired conditions are not being met or treatments would help maintain desired conditions. Under this type of project, restoration prescriptions would be designed specifically to improve habitat features for the spotted owl (or Northern Goshawk). For example, treating a PAC stand could be designed to allow accelerated growth of the larger trees by reducing competition from smaller, pole sized trees and increasing the representation of important structural elements (e.g., snag and coarse woody debris creation) in the habitat.

An LOP would be in effect for all treatments that are proposed within ¼ mile of a spotted owl and/or northern goshawk nest or activity center, regardless of treatment purpose (e.g., restoration of PAC, wildland fire risk) unless it has been determined following a thorough biological review based on site-specific conditions that the activity would not disturb breeding (*see* Appendix E).

We have updated the FEIS with recent analyses and syntheses of the effects of fires on spotted owls and used this information to update our analysis of effects from fire. We have also updated the FEIS with recent analyses and syntheses on the effects of vegetation management on spotted owls. The FEIS has also been updated to include additional analyses regarding the potential suite of activities proposed by the various alternatives keeping in mind that the Plan does not prescribe actions, and that any effects would be best understood at the project-level when the scope of activities and locations are fully understood.

PC 174: The Forest Service should provide a balance between native wildlife protection and fuels management.

Sample Comments: *"remember that national forests are supposed to managed for multiple uses -- including wildlife habitat -- and not just for timber harvesting."*

"I am a member of the Sierra Club, but I do support selective logging of small areas (less than 17-20 acres) and allowing open space which reduces the danger of crown fires. The open space allows good forage for the spotted owls, and provides biodiversity. I support using the slash from logging for biofuel. This kind of logging supports local jobs as well as making the watershed safer from the destructive results of wildfire."

"We must establish a well balanced plan that protects the native wildlife and at the same time decrease wildfire endangerment of the Lake Tahoe region. Both can be accomplished with proper planning."

Response: Agreed. The Forest Plan has been designed to strike a balance between various multiple uses in the LTBMU, including the protection of habitat for sensitive wildlife species. The Plan includes a variety of desired conditions for wildlife habitat that the Plan's objectives, strategies, and standards and guidelines would help achieve. Many of these measures are proactive in that they propose restoration of wildlife habitat and also integrative in that they address other potential management actions (e.g., fuels management) or uses in the context of wildlife habitat protection. The Plan includes a revised guideline (*see* Part3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management Standards and Guidelines) that states that wildlife objectives would increase in priority with increasing distance from communities and proximity to specific wildlife resources whereas fire and fuel objectives would increase in priority with increasing proximity to communities. Ultimately, the standards and guidelines are not the sole constraints on project-level activities, and project-level decisions generally include additional resource protection measures to minimize adverse impacts to sensitive species and habitat.

PC 203: The Forest Service should protect and preserve old growth forest.

Sample Comments: *"The old growth forest needs protecting. Therefore, I ask you at least to recommend Wilderness protection for sensitive roadless areas in the Tahoe Basin including: Dardanelles-Meiss, Freel Peak, and Granite Chief Additions. Also, if you can, try to keep the surrounding roads and nearby areas as wild and natural as possible. The back-country areas need to be designated as "semi-primitive and non-motorized," prohibiting all motorized recreation, including snowmobiles. Old growth forests and the spotted owls go hand and hand and need to be protected."*

"Fully protect old growth forests and the spotted owls and other wildlife that depend on them. Needed wildfire fuel reduction projects should retain large trees (over 30 inches in diameter) while focusing primarily on removing more fire-prone undergrowth adjacent to developed areas."

Response: For a response regarding Old Forest Emphasis Areas, please see the response to PC 25.

We agree that late seral habitat is important for many terrestrial wildlife species, especially the California spotted owl and American marten. We also agree that the Draft Plan was ambiguous about protective measures proposed for late seral habitat, especially given that we are not proposing to implement a one-size-fits all approach for quantitative upper limits on activities nor continue using the Old Forest Emphasis Areas (OFEA) designation. We realize that the approach in the proposed Plan is one that does not assign quantitative limits on canopy cover and/or basal area reduction. We believe this one-size-fits-all approach is infeasible for our current approach to manage vegetation as well as the species that utilize the variety of habitats in the LTBMU since each potential project will have different purposes and needs, site specific conditions, and resource protection needs. Still, we recognize that these activities required clarification in the Plan and our intent to protect late seral closed habitat, so we have revised and created new strategies and standards and guidelines for the protection of late seral habitat (*see* Revised Forest Plan, Section 3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management Standards and Guidelines and Biological Resources Standards and Guidelines/Conservation of Species and Habitat).

PC 276: The Forest Service should only protect spotted owl populations as prescribed by science and true need.

Sample Comments: *"Spotted owl populations should be protected only as prescribed by science and true need, and the "established Protected Activity Centers and Home Range areas should be primarily managed to provide habitat for them. Maintain and evaluate the current management while updating the data to determine need.""*

Response: We agree that science and the needs of spotted owl habitat condition in the LTBMU have, and will continue to drive the Forest Service's approach for managing habitat for this species. We also agree that spotted owl PACs are managed to provide habitat for spotted owls. Indeed, PACS are designated areas on the landscape that are delineated around each territorial owl activity center and are maintained on the landscape for this species. With that said, the management approach for any resource in the LTBMU must consider the multiple uses that we as an agency are tasked to manage. Therefore, the management approach described in the proposed Plan represents a balance of numerous, very real needs facing the LTBMU. For example, in many instances, PACs overlap with the Wildland Urban Interface (WUI) where the safety of the public is a priority. In addition, the habitat condition within some PACs has deteriorated over time such that these areas have not been found to support owls or in some cases reproduction. Therefore, in preparing our management approach, we considered protecting our communities while still maintaining the integrity of PAC habitat and also enhancing this habitat condition where possible. We have also used the scientific literature to guide the development of our desired conditions that also reflect the nature of the habitat in the LTBMU given our position on the crest of the Sierra Nevada. We believe our desired conditions, strategies, objectives, and standards and guidelines for spotted owl PACs represent the best possible management approach given all of our needs as a management unit. Furthermore, we heeded the information contained in the scientific literature when evaluating our desired conditions and potential actions to achieve them.

We also agree that monitoring spotted owl habitat and population trends will help us adapt our management approach as needed. Please see the Forest Plan Monitoring Plan (Appendix A).

PC 501: The Forest Service should provide standards for how it was determined that selective thinning of trees below 30" (Alt A) and 12" (Alt D) would fail to perpetuate old growth habitat for associated species.

Sample Comments: *"Second, the DEIS fails to provide any objective standards for how it determined that selective thinning of trees below a maximum dbh (30" under Alt. A; 12" dbh under Alt. D) would fail to meet the purpose and need of perpetuating "habitats which support old growth dependent species.""*

Response: The DEIS emphasized that Alternatives B and C provided the greatest degree of flexibility in their ability to achieve desired conditions. In the absence of natural disturbance or alteration of disturbance schedules such as fire and pathogens, our forest stands are becoming increasingly dense and increasingly vulnerable to catastrophic, stand-replacing events at a level much higher than under a natural disturbance regime. Therefore, if the Revised Forest Plan (Alternative E) allows for some ability to remove larger trees (under limited circumstances), the stand has a greater chance of growing to late seral conditions because of the reduction in competition among overly stocked trees.

PC 259: The Forest Service should support their conclusion that not implementing Alt B will result in inadequate owl habitat.

Sample Comments: *"DEIS also fails to take a hard look at impacts to spotted owls when it assumes, without any analysis or scientific support, that in the absence of implementing Alternative B, late seral closed canopy stands will not provide adequate habitat for owl (e.g., DEIS, p. 3-311)."*

Response: We acknowledge the comment and agree that the language in this section of the FEIS (Chapter 3/3.4.14Management Indicator Species/Environmental Consequences/Late Seral Closed Canopy Coniferous Forest Habitat (California spotted owl, American marten, and northern flying squirrel)/Alternative B) could be improved with information from the analyses that were conducted as part of the Terrestrial Wildlife and Habitat section (3.4.23) that included more detailed analyses. Therefore, we have updated the analyses in this portion of the MIS section with analyses conducted for the Terrestrial Wildlife and Habitat section. However, please refer to the Terrestrial Wildlife and Habitat section for additional analyses as well as additional supporting documentation for species accounts.

PC 291: The Forest Service should incorporate as a forest-wide standard a limit on reducing more than 10% of the live tree basal area through forest management in nesting and roosting habitat, in order to avoid degrading high quality nesting/roosting habitat to minimally adequate habitat, and to prevent loss of occupancy (Seamans and Gutierrez 2007).

Sample Comments: *"We suggest the following changes to the DLRMP to provide more meaningful protections for Spotted Owls: …Also, incorporate as a forest-wide standard a limit on reducing more than 10% of the live tree basal area through forest management in nesting and roosting habitat, in order to avoid degrading high quality nesting/roosting habitat to minimally adequate habitat, and to prevent loss of occupancy (Seamans and Gutierrez 2007). …"*

Response: The reference provided by the commenter (Seamans and Gutierrez (2007)) evaluated the relationship (correlation) between the amount of mature conifer forest in a territory, alteration of mature conifer forest, and spotted owl territory occupancy and breeding dispersal. One model used in this study evaluated if the amount of mature forest altered in an individual territory had long term effects on colonization and extinction probability. This model included three categorical levels of treatment size: no alteration, between 0 and 20 hectare (ha) alteration, and ≥ 20 ha alteration of mature conifer forest. The study did not evaluate reduction in basal area as inferred by this comment nor the percent (10%) of a territory that experienced a reduction in basal area as inferred by this comment. As the authors point out: "However, our use of broad categories may not have adequately represented the effect of very large or very small changes in mature conifer forest. For example, alteration of 20 ha of mature conifer forest was considered the same as alteration of 80 ha." Therefore, we are unable to evaluate the merit of selecting 10% as the limit on reducing live tree basal area.

The desired conditions for basal area in the four major vegetation types is described in Table 2 of the Revised Forest Plan (Part 1: Vision/1.2 Desired Conditions/Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management). We acknowledge that the Plan's standards and guidelines do not apply quantitative parameters for the amount (proportion) of required basal area retention. The reason for this omission is because we believe a one-size-fits-all approach on the landscape is not the most effective way to achieve our desired conditions for the major vegetation types (e.g., creation of early seral stage) and that this type of decision would be made on a project-specific basis when the scope, purpose and need, location, design, and sensitive resources are better understood. Still, we have added a number of new guidelines to the Plan to clarify the limitations on reducing basal area (and canopy cover), including a guideline that states that basal area would not be reduced beyond the level that would be required to maintain or improve habitat conditions for late seral-dependent wildlife species (*see* the Revised Forest Plan, Part 3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management Standards and Guidelines). This guideline is not the sole constraint on potential projects. Rather, when a project is developed, new science regarding basal area retention (and other relevant habitat metrics) may become available and additional resource protection measures may be included in the design of a project at that time.

PC 9: The Forest Service should improve the analysis of the effects to spotted owls.

Sample Comments: *"The DEIS (p. 3-230) states a goal of shifting forest types away from fir to pine-dominated forest, and away from dense forest to open forest. However, the DEIS does not divulge the adverse impacts of this on Spotted Owls, especially given that the Owls select highly dense, fir-dominated forests and tend to avoid pine-dominated*

forest (Verner et al. 1992, Irwin et al. 2007, Underwood et al. 2010 [Table 3 and Fig. 4]). The adverse impacts of this goal on Spotted Owls are simply not adequately addressed."

Response: The Forest Vegetation section (3.4.11.) of chapter 3 of the FEIS states "The goal for forest vegetation in this plan is to restore forest structure and composition to conditions that are more resilient to future changes in climate and disturbance regimes." Where the Plan and FEIS describe a goal of restoring the early seral stage, it is stated in both the FEIS and Plan that this stage would be created in the mid seral stage and not in late seral habitat. However, we have clarified in the Plan that locations for early seral creation would be selected as part of an IDT process in which important factors such as landscape connectivity and proximity to PACs or detections of late and mid seral associated species would be considered (*see* the Revised Forest Plan, Part 3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management Standards and Guidelines). Where the FEIS and Plan describe that restoration would include reducing stand densities and fuels periodically over the life of the Plan, the reduction would be achieved by primarily targeting smaller understory trees for removal so as to enhance the larger overstory trees. However, some larger trees could be removed in order to promote accelerated growing conditions for the stand and improve stand resiliency. Moreover, this restoration would be intended to reduce the risk of a stand replacing fire. We have added a guideline in the Plan to be clear that vegetation treatments would not reduce basal area (or canopy cover) of a stand beyond that which maintains or improves habitat conditions to support late seral associated species (*see* the Revised Forest Plan, Part 3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management Standards and Guidelines).

As stated in the FEIS, spotted owl research indicates that "forests can be too dense as well as too open" for foraging spotted owls (Irwin et al. 2007) such that extremely dense stands typically are not used for foraging (Verner et al. 1992).

White fir forests in the Sierra Nevada have become increasingly dense as well as common on the landscape. This shade tolerant species is now more abundant than some of the more fire-hardy species. The FEIS and Revised Forest Plan describe that restoration could include converting overabundant white fir types to more resilient pine or mixed conifer. To be clear, this conversion would not occur within late seral habitat and would include the conversion to mixed conifer, of which pine can be a major component. Restoration would not promote the homogenization of forest types on the landscape. Research in the Sierra Nevada has shown that spotted owls exist in mixed conifer forests that are also dominated by a mixture of pines (Seamans and Gutierrez 2007, Williams et al. 2011). The Forest Service considers suitable California spotted owl habitat to include pine forests such as east-side pine.

The Plan does not prescribe any restoration activities that could affect (positively or negatively) the spotted owl. Restoration projects would be evaluated at the project-level when the scope, location, sensitive resources, and potential resources are better understood.

PC 292: The Forest Service should add forest-wide standards and guidelines allowing and encouraging active snag creation in forest areas that otherwise meet the above definition of suitable California Spotted Owl nesting and roosting habitat but are deficient with regard to large snag basal area.

Sample Comments: *"We suggest the following changes to the DLRMP to provide more meaningful protections for Spotted Owls: …Add forest-wide standards and guidelines allowing and encouraging active snag creation in forest areas that otherwise meet the above definition of suitable California Spotted Owl nesting and roosting habitat but are deficient with regard to large snag basal area..."*

Response: We agree with the comment that snags are an important habitat element for spotted owl and other wildlife in the LTBMU. The importance of this habitat component is already emphasized in the Plan, especially in the desired conditions (the drivers of the Plan) which reflect the conditions we strive to achieve. The desired condition for spotted owl habitat in PACs is described as having "higher than average levels of snags (preferably larger than 45 inches dbh) for the stand type…"(*see* the Revised Forest Plan, Part 1: Vision/1.2 Desired Conditions/Ecological Sustainability/Biological Resources/Protected Activity Centers and Home Range Core Areas (PACs and HRCAs)). In addition, we have amended language in the Plan to emphasize the active creation of snags (rather than tree removal) where trees larger than 30 inches in diameter are removed (*see* Part 3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, and Fire Management Standards and Guidelines). We believe all of the desired conditions, strategies, objectives, and standards and guidelines described in the Plan promote the creation and protection of snags in a way that benefits many species that prefer this habitat component while also allowing management of the LTBMU for multiple uses.

PC 66: The Forest Service should consider an alternative like the 2001 Framework decision and 1) retains large trees; 2) allows for thinning of small to medium size trees; and 3) limits recreational expansion into wildlife habitat.

PC 251: The Forest Service should provide canopy cover minimums for late seral "open" habitat, as were previously found by the CASPO Guidelines EA and 2001 Framework decisions.

PC 290: The Forest Service should incorporate, as forest-wide standards, requirements to retain, in all current suitable Spotted Owl nesting and roosting habitat as defined in USDA (2001b [Volume 3, Table 4.4.2.1c]), at least 185-350 square feet per acre of live tree basal area, at least 20-30 square feet per acre of basal area in snags over 15 inches in diameter, and at least 70% canopy cover, consistent with the description of suitable habitat in the scientific literature (Verner et al. 1992, USDA 2001b [Vol. 3, Table 4.4.2.1c], Bond et al. 2004, Irwin et al. 2007).

Sample Comments: *"We suggest the following changes to the DLRMP to provide more meaningful protections for Spotted Owls: • Incorporate, as forest-wide standards, requirements to retain, in all current suitable Spotted Owl nesting and roosting habitat as defined in USDA (2001b [Volume 3, Table 4.4.2.1c]), at least 185-350 square feet per acre of live tree basal area, at least 20-30 square feet per acre of basal area in snags*

over 15 inches in diameter, and at least 70% canopy cover, consistent with the description of suitable habitat in the scientific literature (Verner et al. 1992, USDA 2001b [Vol. 3, Table 4.4.2.1c], Bond et al. 2004, Irwin et al. 2007)."(PC 290)

"As discussed, the draft Plan does not provide any canopy cover minimums for late seral "open" habitat, as was previously found by the CASPO Guidelines EA and 2001 Framework decisions to be necessary to avoid significant adverse effects on late seral species." (PC 251)

"As discussed throughout our comments the draft Plan DEIS does not consider an alternative that reflects the full range of environmental resources uses and values that could be produced. For example, the DEIS does not consider an alternative that corresponds to the 2001 Framework decision, which generally allows substantial forest thinning of trees up to 20" dbh (USDA Forest Service 2001)." (PC 66)

" The Rule requirement is consistent with NEPA's purpose that a full range of alternatives must be considered in relation to the most critical issues of forest management, including the preservation of wildlife viability. This range would be achieved by the Forest Service considering an alternative that 1) retains large trees; 2) allows for thinning of small to medium size trees; and 3) limits recreational expansion into wildlife habitat. In our view, Alternative D has been artificially constructed with unduly narrow constraints and is intended as a "dead-on-arrival" straw man choice rather than one of several rigorous attempts to balance wildlife protection with fire and forest health needs by exploring (for example: a 16" and a 20" cut limit coupled with higher levels of planned and managed fire) and modeling explicit fire behavior and forest health tree removal outcomes with these limits." (PC 66)

Response: The 2001 Framework was determined to be infeasible to implement because of the inability for adaptive management and was replaced by the 2004 SEIS. The LTBMU desired conditions for spotted owl PACs and other late seral associated species are based on those described in the 2004 SEIS. See Section 2.5 in the FEIS for further discussion of the limitations of the 2001 Framework decision.

Refer to response to PC 253 for a discussion of estimating canopy cover reduction at the Forest Plan level and refer to responses to PCs 250, 254, 261 and 262 for a discussion of canopy cover definitions and potential modifications.

PC 250: The Forest Service should evaluate the definition of closed canopy habitat.

PC 254: The Forest Service should describe what is meant by moderate capability reproductive habitat and should cite to any established literature indicating that these late seral species have reproduced successfully in mixed conifer habitat at the lower margins of 4M.

Sample Comments: *"From a biological perspective, closed canopy forest would mean CWHR condition D, with canopy cover above 60 percent which is the required nesting habitat for owls and goshawks and, in mid-elevation forests such as in the mixed conifer forests of the Tahoe Basin, required denning habitat for marten. Yet the DEIS assumes*

the critical canopy threshold as either 40 percent or 50 percent, thereby providing no relevant information about the actual reproductive habitat that exists for late seral species i.e. late seral forest with canopy cover over 60 percent -- nor the amount of this habitat that will be reduced by Alternative B over time." (PC 250)

"the DEIS/BE fails to take a hard look at project impacts by characterizing CWHR 4M habitat as nesting or denning habitat of "moderate capability" for late seral, closed canopy species. The DEIS does not describe what is meant by moderate capability reproductive habitat and does not cite to any established literature indicating that these late seral species have reproduced successfully in mixed conifer habitat at the lower margins of 4M" (PC 254)

Response: Table 3-42 in the Management Indicator Species section of the FEIS (Chapter 3/3.4.14) describes late seral closed canopy forest as 5M/D as well as 6. With reference to meeting the needs of the species through our classification of habitat, Table 1 in Moriarty et al. (2011) describes high quality marten reproductive habitat as M (40-60%) and D (> 60%) canopy closure as well as 4 and 5 size classes. Marten have been found denning with kits in 4M habitat in the LTBMU. To clarify part of this comment related to marten habitat, the LTBMU would not be considered mid-elevation mixed conifer habitat; the LTBMU straddles the crest of the Sierra Nevada and ranges in elevation from 6,225 feet at lake level to 10,881 feet at Freel Peak. Please see the Plan and FEIS Forest Vegetation Section for more information on the major forest types and elevation. The elevation, geography, and topography of the LTBMU influence the major forest types and features of these types.

The Plan does not assume any critical thresholds for canopy cover. However, we do understand the value of dense canopy and mature forest structure to late seral species and have amended many of our standards and guidelines, and strategies to clarify the protection of this habitat. We have also increased the desired condition for PAC canopy cover to 70%. In terms of canopy cover, although we do have stands with ≥70% canopy cover, many of the forested areas here don't have as much as 70% canopy cover in mature classes simply (*see* Forest Vegetation section of the FEIS Chapter 3). Many of the PACs in the LTBMU have average canopy cover between 40 and 59%.

Moderate capability habitat is defined by CWHR and is described in the BE.

For additional information on CWHR, please see responses to comments PC 201, 74, 218, and 221.

PC 252: The Forest Service should clarify the difference between open and closed canopy for wildlife.

Sample Comments: *"the DEIS lacks critical clarity in failing to identify what constitutes open versus closed canopy, terms that have no understood biological meaning for wildlife outside of the DEIS's conflicting definitions."*

Response: Table 3-42 in the Management Indicator Species section of the FEIS (Chapter 3/3.4.14) describes late seral closed canopy forest as 5M/D and 6 and late seral open

canopy habitat as 5S/P. We acknowledge that our definition of open and closed canopy habitat described for terrestrial wildlife using CWHR and the definition for open and closed canopy forest types is slightly different and wasn't clearly described in the DEIS. We have included a description of this difference in the FEIS (Chapter 3/3.4.22/Terrestrial Wildlife).

PC 253: The Forest Service should assess how much late-seral closed canopy habitat will be lost due to forest thinning.

Sample Comments: "*Here, the public does not have adequate information about whether the Forest Service is considering 4M or 5M habitat to be "open" or "closed" or whether 5M habitat should be considered partly within the "late seral - closed canopy" definition or not. This is particularly relevant due to the BE's assertions that both spotted owl and marten can find acceptable nesting and denning habitat in 4M and 5M habitats. While we strongly disagree with that assertion, the DEIS does not even allow an assessment of how much of this habitat will be lost due to forest thinning."*

Response: It is not possible to estimate the habitat loss since the Revised Forest Plan does not prescribe projects or management activities. Furthermore, alteration of habitat is not always considered loss. CWHR types (including 4M and 5M) and the lumping of these types into open and closed canopy and the various seral stages are described in an additional table (3-35) in section 3.4.11 (Forest Vegetation) of the FEIS. Section 3.4.23 (Terrestrial Wildlife and Habitat) includes additional clarifying information for the distinction in CWHR types as they are used in model output.

Regarding the results of the SPECTRUM model, we incorrectly stated in the DEIS that late seral closed canopy would decrease as a result of thinning this seral stage to create late seral open canopy habitat. We also incorrectly interpreted the model output in the DEIS. We have reviewed and clarified the model data source and parameters (prescriptions, disturbances, restrictions) and can now more accurately explain the model output. The model output indicates that during a fifty year period following Plan implementation (excluding decade 1) late seral closed canopy forest for all of the major forest types combined would not change from current condition under Alternatives B and E. We have provided additional clarifying information for the SPECTRUM model in section 3.4.11 (Forest Vegetation) of the FEIS. We have also described predicted trends for the seral stages based on model output in section 3.4.23 (Terrestrial Wildlife) of the FEIS and in the Biological Evaluation for Terrestrial Wildlife Species.

PC 102: The Forest Service should identify and protect wildlife habitats and corridors so native wildlife may thrive in changing climatic conditions.

PC 302: The Forest Service should provide wildlife migration/movement corridors.

Sample Comments: *"Wildlife corridors need to be addressed." (PC 302)*

"species and ecological communities will move in response to climate change. The Forest Service should facilitate these movements by working to connect discontinuous areas of similar terrestrial and aquatic habitat and by establishing protections for likely

movement corridors. (See, e.g., USDA Forest Service 2010, p. 27–28: "Collaborate with partners to develop land management plans that establish priority locations for maintaining and restoring habitat connectivity to mitigate effects of climate change. Seek partnerships with private landowners to provide migration corridors across.") In establishing these mitigation corridors, the Forest Service should ensure there is a continuous pathway between nearby core areas." (PC 102)

"The plan should provide corridors connecting protected areas, such as the Granite Chief and Desolation Wildernesses, so that native wildlife stressed by climate change may move to higher, cooler temperatures if this is indicated by the knowledge we have based on our experience and best practice;". (PC 102)

Response: We agree. The Plan contains a number of desired conditions, strategies, objectives, and standards and guidelines related to habitat connectivity, including movement corridors. The Plan has also been revised to include measures specific to climate change needs.

PC 255: FS should recognize deficiencies in CWHR system.

Sample Comments: *"The California Wildlife Habitat Relationship System (CWHR), the basic classification system in the BE/DEIS used to establish baseline habitat conditions for late seral species, is a coarse system that fails to take into account the wide range of habitat conditions embodied by each of the habitat classes. This failing of the CWHR system has been identified by other scientists: The forest is broadly categorized using the dominant tree size class, and canopy cover is approximated through interpretation of aerial photographs or modeled indirectly with the Forest Vegetation Simulator into broad cover classes (see limitations of this approach in chapter 14 under "Canopy Cover and Closure"). These are rough estimates of a forest's habitat taken at a fixed point in time and do not consider features such as snags, down wood, or understory diversity that are often linked to wildlife use. Consequently, the use of CWHR for making reliable, project level predictions on the potential habitat impacts of forest management activities on a wildlife community is limited (North 2012, p. 75)."*

Response: We chose to use the California Wildlife Habitat Relationships (CWHR) system because it a well-established, standardized system of wildlife habitat definitions and sampling protocols that has been tested and used for wildlife habitat monitoring by California Department of Fish and Game (Wildlife), the Forest Service, and many state and federal partners for over 20 years. Habitat trend data using CWHR definitions and protocols exists.

The CWHR System includes a standardized habitat classification scheme for California, containing 59 habitats, structural stages for most habitats, and 124 special habitat elements, which is summarized in Mayer and Laudenslayer (1988). The 59 wildlife habitats in the CWHR System (27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 nonvegetated) are used with predictive models for terrestrial vertebrate wildlife species. In addition, stages and special habitat elements are defined. Stages are defined for virtually all habitats. A stage is a combination of size and cover

class for tree-dominated habitats, age and cover class for shrub habitats, height and cover class for herbaceous habitats, and depth and substrate for aquatic habitats. A field sampling protocol is well established for determining stages in all vegetated habitats. A complete description of the CWHR System can be found at http://www.dfg.ca.gov/biogeodata.

The CWHR System was initiated in the early 1980s to provide a formalized and generally agreed-upon compendium of knowledge about the distribution and habitat preferences of California's terrestrial vertebrates (Graber 1996). CWHR has been used for several large wildlife resource conservation efforts including California's GAP effort, the legislatively authorized Timberland Task Force effort, and the Sierra Nevada Framework and Forest Plan Amendment efforts. It is one of the primary biological data sets used in an assessment of California's biodiversity for the "Atlas of the Biodiversity of California." CWHR is used in sustained yield planning efforts by several large private timber companies and is part of regulations adopted by the California Board of Forestry.

PC 266: The Forest Service should consider how their literature citations for goshawk are applied.

Sample Comments: *"The DEIS Fails to Take a Hard Look at Impacts of the Plan on Northern Goshawk. For similar reasons as for marten and owl, the DEIS fails to take a hard look at how logging will adversely affect northern goshawk. Instead, the DEIS makes no distinction between nesting and foraging habitat for goshawk, and wrongly assumes that goshawks may nest successfully in mixed conifer, western slope forests down to 40 percent canopy cover. This approach directly contradicts the most relevant study, Keane (1999), which found that goshawk nest areas in Lake Tahoe (0.25 acre) characterized by high canopy closure (mean=70.4 percent). The literature cited in the BE on Goshawk demonstrates that forest thinning has the potential for significant effects on the nesting success of this species, yet the DEIS provides no analysis of how goshawks may survive over time, given the extent of logging proposed – including in PACs – and without any adaptive management monitoring plan in place to measure the cause and effect impacts."*

Response: Many of the PACs in the LTBMU have an average cover below 70% and still have reproduction by goshawk pairs. However, we agree that canopy cover is an essential part of forest structure for goshawk and have increased our desired condition for canopy cover to 70%. In terms of effects analysis, impacts on goshawks are described in the FEIS and in detail in the Biological Evaluation.

PC 258: The Forest Service should consider how their literature citations for California Spotted Owl are applied.

Sample Comments: *"The DEIS also fails to take a hard look at the available science in asserting that owl nesting may be successful in forests with 30 percent canopy, based on Chatfield, 2005. This study did not in fact find that owls may reproduce successfully in PACs with 30 percent canopy coverage. Instead, the 30 percent coverage in Chatfield 2005 only refers to dominant late seral trees; the remaining sub-dominant canopy in*

these forests were over 70 percent. Further, subsequent studies in the same El Dorado study area have determined that owls require 70 percent overall canopy for successful reproduction. See Seamans (2005)."

"Finally, the DEIS mischaracterizes the existing setting for owls in describing their current regional population status as stable and fails to address recent studies showing owl disappearance from logged forests in Plumas and El Dorado County."

"The DEIS (pp. 3-310 and 3-311) claims that late-successional/old-growth stands with high basal area and high canopy cover—i.e., California spotted owl nesting and roosting habitat, such as that found in PACs and HRCAs (Verner et al. 1992, Bond et al. 2004, Irwin et al. 2007)—is at "a higher risk of vulnerability from bark beetles" and other tree mortality effects stemming ostensibly from dense forest conditions. The DEIS claims that restrictions on commercial logging in such Owl nesting/roosting habitat in Alt. A will "result in a more rapid decline in late seral conditions" than the intensive-logging alternatives, Alt. B and Alt. C. A similar statement is made on p. 3-312 of the DEIS with regard to Alt. D ("…dense stand conditions under this alternative could have disastrous consequences on the longevity and health of this habitat"). However, there are major analytical problems with these statements. First, the DEIS provides no citations to any scientific studies or other scientific analysis to support these statements. Second, the statements make no sense in light of the fact that, on the very same pages, the DEIS states that, in "late seral closed canopy forest", Alt. A would result in an "increase by approximately 9% over the next 30 years" (DEIS, p. 3-310 [emphasis added]), and Alt. D would result in an "increase by approximately 7%...over the next 30 years" in such high-quality Spotted Owl habitat (DEIS, p. 3-312 [emphasis added]). In contrast, the DEIS states that "late seral closed canopy forest" is expected to decline by 15% and 22% for Alt. B and Alt. C, respectively (DEIS, pp. 3-311 and 3-312). Third, these pages in the DEIS completely fail to account for, address, or acknowledge the following: a) high-severity fire is a minority of fire effects currently in Sierra Nevada conifer forests, and most fire effects are low/moderate (Odion and Hanson 2006, Odion and Hanson 2008, Collins et al. 2009, Collins and Stephens 2010); b) mixed-severity fire does not reduce Spotted Owl occupancy (Roberts et al. 2011, Bond et al. 2012 in press); c) mixed-severity fire increases Spotted Owl reproductive output by 60% (Roberts 2008 [43% moderate/high-severity fire, on average]); d) Spotted owls preferentially select unsalvaged moderate- and high-severity fire patches for foraging (Bond et al. 2009); e) long-unburned forests (i.e., those that have "missed" multiple fire return intervals) burn mostly at low/moderate-severity in the Sierra Nevada, and do not have higher levels of high-severity fire than less fire-suppressed forests (Odion et al. 2004, Odion and Hanson 2006, Odion and Hanson 2008, Odion et al. 2010, Miller et al. 2012, van Wagtendonk et al. 2012); and f) current snag levels on the LTBMU are well below the optimal levels for Spotted Owls (i.e., owl habitat would benefit from additional snag recruitment from tree mortality), as discussed in detail above.

"The DEIS fails to adequately analyze the recent scientific evidence showing that all three California spotted owl demography study areas within national forest lands in the Sierra Nevada (i.e., within areas subjected to intensive mechanical thinning and post-fire logging) have lambda values below 1.0 now (lambda values below 1.0 are associated

with declining populations), while the only study area that is in protected forest (Sequoia/Kings Canyon National Park) has a lambda value above 1.0 (lambda values above 1.0 are associated with increasing populations) (see Keane 2011, Sherer et al. 2011, Gutierrez et al. 2012, and Munton et al. 2012)."

"In light of recent science indicating that California Spotted Owls benefit from closed-canopied old forest for nesting and roosting and preferentially select unlogged moderate-severity and high-severity fire areas for foraging (Bond et al. 2009), and that mixed-severity fire (with an average of 32% high-severity effects) does not reduce California Spotted Owl occupancy in the Sierra Nevada, unlike post-fire logging (Bond et al. 2012, in press), the DEIS fails to articulate a sound or clear ecological rationale for intensively managing the suitable Spotted Owl habitat (including PACs AND HRCAs) to reduce stand density and canopy cover, as well as preclude high-severity fire in all fuels treatments and prescribed fire."

"Rather than address the issue of habitat loss, the Forest Service seems to be suggesting that high-severity fire will harm the owl and that therefore areas must be logged in order to prevent high-severity fire. The only cite that is provided for the assertion that "high-severity fires can have a pronounced negative effect on spotted owl populations" is Lee and Irwin 2005. However, Lee and Irwin 2005 is simply a modeling effort that assumed that fire is harmful to owls – the study itself did not investigate what the actual relationship is between fire and owls. "

Response: We agree that 30% canopy cover would be relatively low for successful nesting of owl pairs. We have updated the FEIS and BE species accounts and analyses of effects to indicate the potential effects of canopy reduction on spotted owls and other late seral associated species. We have also revised and created standards and guidelines to clarify our intent to protect late seral closed canopy habitat and PAC canopy closure. The desired condition for PAC canopy closure has been increased to 70%. Although there is a standard in the Plan that canopy may be reduced below the desired condition, this would occur where needed to improve habitat and/or set the trajectory for the improvement of late seral closed canopy habitat. That said, many of the PACs in the LTBMU, and with reproductively active pairs have average canopy cover less than 70%.

The discussion of heterogeneity and spotted owl habitat use has been removed from the FEIS and modified in the BE to better reflect the benefits of habitat heterogeneity within the relevant context given that the benefit is dependent on locations and type of habitat structure that comprises a heterogeneous landscape.

Regarding the results of the SPECTRUM model, we incorrectly stated in the DEIS that late seral closed canopy would decrease as a result of thinning this seral stage to create late seral open canopy habitat. We also incorrectly interpreted the model output in the DEIS. We have reviewed and clarified the model data source and parameters (prescriptions, disturbances, restrictions) and can now more accurately explain the model output. The model output indicates that during a fifty year period following Plan implementation (excluding decade 1) late seral closed canopy forest for all of the major forest types combined would not change from current condition under Alternatives B and

E. We have provided additional clarifying information for the SPECTRUM model in section 3.4.11 (Forest Vegetation) of the FEIS. We have also described predicted trends for the seral stages based on model output in section 3.4.23 (Terrestrial Wildlife and Habitat) of the FEIS and in the Biological Evaluation for Terrestrial Wildlife Species. For a discussion of the regional status of spotted owls, please see response to PC 521. Regional trend information has also been added to the FEIS and BE. For a discussion of the potential for a decline in late seral conditions with limited ability to treat late seral stands, please see the Forest Vegetation section of the FEIS Chapter 3 and Table 2-3.

We have revised the species account for spotted owls and effects analysis in the FEIS regarding fire effects (and vegetation treatment effects) on spotted owls to more accurately reflect current research findings.

It appears that we were not clear in our discussion of PAC restoration in the DEIS (p. 3-448) since the commenter interprets the language used to infer that the USFS proposes to convert nesting and roosting habitat to foraging habitat. On the contrary, restoration of PACs would be intended to improve nesting habitat. The paragraph creating the confusion, and citations used, was intended to report research findings that forest stands can be too dense (as well as too open) for a variety of spotted owl life history needs including nesting and foraging. We have removed this paragraph so that further confusion is avoided.

PC 521: The Forest Service should consider the regional status of spotted owls and why the proposed Plan will not lead to a trend toward federal listing or jeopardize the persistence of spotted owl in the Tahoe Basin.

Sample Comments: *"As discussed, the draft Plan does not ensure the viability of spotted owls in the Tahoe Basin because it proposes significant amounts of logging in owl habitat that studies show will render much of this habitat unsuitable for owls. Meanwhile, the most recent monitoring for owls is showing that implementation of the 2004 Framework fuel reduction logging may already be having negative population effects on owls at the regional level."*

"The population of owls has been monitored on four study areas in the Sierra Nevada over the last 20 years. The results of the three demographic studies on national forests in the Sierra Nevada confirm the existence of a decline in the population over the last 20 years (Keane et al.2011, Gutiérrez et al. 2012, Keane 2012, Munton et al. 2012, Scherer et al. 2012). In contrast, results from the single study in the Sierra Nevada on national park land indicate that the population is stable to increasing."

"The biological evaluation (Wildlife BE) and DEIS for the LTBMU Forest Plan revision fails to explain how, given the backdrop of population declines, the adverse impacts to owl habitat being proposed – coupled with the paucity of high quality habitat currently in the landscape – will not lead to a trend toward federal listing or jeopardize the persistence of spotted owl in the Tahoe Basin."

Response: The Revised Plan focuses on the restoration of the major ecosystems within the Lake Tahoe Basin Management Unit. Part of these restoration efforts will be accomplished by conducting vegetation treatments. As stated in the Forest Vegetation section of the FEIS (Chapter 3), "the goal for forest vegetation in this plan is to restore forest structure and composition to conditions that are more resilient to future changes in climate and disturbance regimes." The proposed Plan does not authorize or prescribe specific restoration projects to achieve this goal nor assign locations for projects. In other words, the Plan does not prescribe activities that may or may not affect sensitive resources, including wildlife.

The late seral, dense forests in the Sierra Nevada are at risk to stand-replacing fire because of heavy fuel loading (Roberts and North 2013). Catastrophic fire is considered the greatest potential threat to the California spotted owl (DOI 2006).

In the Sierra Nevada, between 1999 and 2002, 18 spotted owl PACs were severely affected by wildfire and could be considered "lost" (USDA Forest Service 2004, SEIS pp. 145). From 2003 to 2008, a GIS exercise by the USFS found that 33 PACs had more than 75% of their area burned at either high or moderate severity, and rendered unusable by spotted owl, due to 8 major wildfires on NFS lands (see Table 1 and footnotes in Yasuda Declaration on October 21, 2008 for *Sierra Forest Legacy et al. vs Mark Rey, Tuolumne County Alliances for Resources and Environment et al., California Ski Industry Ass'n, and Quincy Library Group).* The Moonlight fire on the Plumas National Forest burned approximately 65,000 acres (46,000 on National Forest System lands) in September 2007. Based on fire severity assessment methods and severity maps (Safford et al. 2007, Miller 2007, Miller and Thode 2007), a total of approximately 43,938 acres (National Forest and private) burned at high and moderate-high severity (Basal Area Mortality > 50%); approximately 31,682 acres of forest vegetation was burned at high and moderate-high severity on National Forest system lands (Rotta 2011). This fire resulted in the immediate long-term loss of 17 California spotted owl PACs and HRCAs, as well as the removal of 96% of the suitable nesting habitat and 86% of the suitable foraging habitat within the landscape.

The results of simulation modeling research summarized in Keane (2013) suggests that some fuels treatments can reduce fire risk and with minimal effects on owl reproduction, and may have long-term benefits of reducing wildfire risk that outweigh short-term effects of treatments. Seamans and Gutiérrez (2007a) found that alteration of ≥20 hectares (49 acres) of mature forest in spotted owl territories may decrease the probability of colonization. The results from a separate opportunistic case study of fuel reduction treatments (mechanical thinning of understory trees and/or prescribed fire) on PAC occupancy and owl reproduction in the Stanislaus National Forest indicates that such treatments can be compatible with owl use and reproduction as owls continued to occupy the treated PACs and produce young (Rich 2007). In the Plumas National Forest, where the Moonlight fire resulted in the loss of PACs, fuel reduction treatments are occurring in the Meadow Valley Project area. Of the seven original confirmed pairs of spotted owls, there were 3 confirmed pairs, one unconfirmed pair, and one barred owl in the project area in 2012 (Keane, pers. comm., 2013). The data cannot conclude cause for the change in spotted owl occupancy but show the association of treatment and change in

spotted owl occupancy as well as occupancy of a strong owl competitor. The technique used in the Meadow Valley project, DFPZ (Defensible Fuel Profile Zone) is currently not practiced on the LTBMU but the results from this study demonstrate that although owls could incur short term impacts from fuel reduction treatments, this risk outweighs the potential consequences of losing the habitat to a stand replacing fire like the Moonlight fire which resulted in the immediate long-term loss of 17 California spotted owl PACs and HRCAs in the same National Forest. In their 12-month finding to not list the California spotted owl under ESA, the USFWS (2006) recognized that "the primary technique of fuels reduction, which is thinning understory trees with mechanical equipment and/or prescribed fire, may have detrimental effects on spotted owl habitat in the short term, but may favor development of habitat in the longer term, and may reduce the likelihood of catastrophic fire that could substantially degrade or eliminate habitat". It should be noted that the slide presented by John Keane (Figure 7) and used by the commenter was flawed as presented. There was a mistake in the calculation of confidence intervals around the annual estimates of realized population change because an incorrect error term was used (Keane and Conner 2012). Use of the correct error term does not change the annual point estimates, but fully accounts for the variation in these estimates and results in larger confidence intervals (Keane and Conner 2012).

The 2001 and 2004 Framework allowed for potential short term modifications to habitat and impacts to reduce fuels and the risk of stand replacing, catastrophic fires and the USFWS indicated that short term effects of treatments could be incurred for the long term benefit of reducing the risk of catastrophic fire in owl habitat. The US Fish and Wildlife Service (USFWS) determined in the 12-month finding for petition to list the California spotted owl as threatened or endangered (2006) that the species did not warrant listing at that time and noted that wildfire was a major threat facing this species. At the time of the 12-month finding, results from the draft meta-analysis reported in Blakeseley et al. (2006) indicated that the Lassen National Forest population could be experiencing a potential population decline but at that time the best available data indicated that the California spotted owl populations are stationary throughout the Sierras and there was no strong evidence for decreasing linear trends in lambda.

A meta-analysis of spotted owl population data at four demography study areas (Sierra National Forest, Eldorado National Forest, Lassen National Forest, and Sequoia-Kings Canyon National Park) from 1990 to 2005 concluded that, with the exception of the Lassen study area, owl populations were stable, with adult survival rate highest at the Sequoia-Kings Canyon study site (Blakesley et al. 2010). The 95% confidence limit for lambda in the Lassen study area ranged from 0.946 to 1.001 (estimated value 0.973), which barely includes 1, and the analysis estimated a steady annual decline of 2 – 3% in the Lassen study population between 1990 and 2005 (Blakesley et al. 2010).

Recent analyses from the same four demography study areas suggest that there may be a concern for decline in spotted owls within the three National Forest demography study areas in the Sierra Nevada. A preliminary analysis conducted by Sierra Nevada Adaptive Management Project (SNAMP) in 2011 indicates that the owl population on the Eldorado National Forest may be declining but the 95% confidence interval for lambda overlaps one (1) (Gutierrez et al. 2012). Tempel and Gutiérrez (2013) conclude that data from the

Eldorado Density Study Area (60% USFS managed land in Eldorado National Forest and 40% private land managed timber companies) suggest a 31% decline in the spotted owl population size from1993-2010 but again, the 95% confidence interval slightly overlapped one (1) for all parameters. Using data for an 18-year study period, Conner et al. (2013) found that the different estimators for 'realized population change' (expressed as 'delta' - ratio of population size at end time to initial population size) indicated population declines of 21-22% for the Lassen study area and 11-16% for Sierra study area, and an increase of 16-27% for Sequoia-Kings Canyon study area. The annual rate of population change (lambda) also showed a declining trend. However, similar to the analyses conducted by Tempel and Gutiérrez (2013) the confidence intervals overlapped 1.0 for all estimators and all study areas. As stated in Conner et al. (2013) "If a population is growing (lambda greater than 1), managers cannot tell whether the growth is from internal recruitment or immigration. Likewise, if a population is declining, managers cannot determine whether the declines are due to deaths within the population or emigration. Thus, additional information on specific vital rates is necessary to understand what is driving lambda and ultimately, the mechanisms driving population dynamics." Causation for any potential decline in occupancy is unknown.

Even if there are declining population segments in some portions of the owl's range, there is no clear evidence that the cause of such potential declines is recent vegetation treatment on National Forest System lands. Some factors adversely affecting the owl, such as harsh winters and urban encroachment could be factors. Another increasingly important factor is the barred owl (*Strix varia*), which displaces spotted owls from primate habitat. Barred owls were previously abundant in more northern latitudes, but have continued their southward expansion into the Sierra Nevada. As a result, barred owls have been out-competing spotted owls from British Columbia, Canada to central California. This is a particularly important factor in the Lassen National Forest study area where barred owls and spotted-barred hybrids have been documented. Gutierrez (2011) has stated that the cause of the potential decline in the Eldorado National Forest population is not known. Keane (2013) states that the cause(s) of the suspected declines is not known, but later goes on to say that timber harvest, fire suppression, and the expansion of the barred owl could be a factor.

On the LTBMU we have predominantly moderate habitat for the spotted owl as indicated by the high proportion of moderate habitat in PACs (see Biological Evaluation for Terrestrial Wildlife Species), areas that have been selected by owls to nest and that have been subsequently protected. Still, the approach under the proposed Plan is one in which PACs would be protected as well as restored for the benefit of the species, to improve moderate capability habitat, sustain high capability habitat, and reduce the risk of a massive incident of catastrophic fire, drought stress, or insect outbreak.

We realize that the potential for the killing of trees larger than 30 inches in diameter, reducing canopy cover, and restoration of PACs seems counter to the protection of the habitat components very strongly associated with spotted owl habitat. Our intention is to protect these habitat features into the future for sustained habitat quality, and improved habitat quality for spotted owls and other sensitive terrestrial wildlife species. We have revisee the Plan (Alternative E) and the FEIS to clarify that wildlife needs would be key

drivers in the development of these projects and that all projects would be developed through the work of an interdisciplinary team and be subject to NEPA.

For a discussion of viability, please refer to Appendix E. We would like to clarify that the San Bernardino spotted owl population is still in existence although no demography studies have been conducted since the mid-1990s.

PC 237: The Forest Service should ensure the viability of cavity nesting birds.

Sample Comments: *"I am especially concerned about cavity nesting birds. In the area where I live, a checkerboard of private and Forest Service lands, near the Mt. Rose Highway, I have noticed over the years that with the clearing of much of the standing dead trees how quiet it has become. Ten and twenty years ago, sitting on my deck I constantly heard the sounds of chickadees and nuthatches and saw brown creepers moving along tree trunks. Today it is a real treat when I see one, because these birds that were once ubiquitous are not frequently seen in our neighborhood. I understand that this is only anecdotal evidence, and I fully accept the importance in a residential area to manage the potential fuel loads. For more rare species in undeveloped areas, however, it seems that fewer compromises need be made in terms of maintaining habitat for birds."*

Response: Our measures are designed to protect habitat for wildlife. For an evaluation of species viability, please see Appendix E.

We have greater flexibility outside the WUI where public safety concerns are fewer. In this area, many projects would be tailored towards achieving wildlife habitat desired conditions. We have a guideline in the Plan emphasizing that wildlife objectives increase in priority with increasing distance from communities and proximity to specific wildlife resources (e.g., nest and/or roost sites) (*see* Section 3: Design Criteria/3.1 Ecological Sustainability/Forest Vegetation, Fuels, Fire Management Standards and Guidelines). Moreover, we have a number of standards and guidelines (and a desired condition) related to the retention of snag habitat and consideration given to installing nest boxes for cavity nesting birds when snags are absent from a project site (on a project-specific basis). We have revised our standard related to restoration of habitat following a wild fire to more clearly articulate the role of wildlife objectives/concerns (including cavity nesting birds) in developing such projects and determining implementation timelines (*see* Section 3: Design Criteria/3.1 Ecological Sustainability/Biological Resources Standards and Guidelines/Conservation of Species and Habitat).

PC 247: The Forest Service should ensure viability of willow flycatcher.

Sample Comments: *"The draft Plan proposes to drop willow flycatcher as an MIS species for wet meadows. As discussed above, the habitat needs of the flycatcher and MIS designated species, Pacific tree frog, are very different, and thus activities such as vegetation removal that might not affect the tree frog could have significant effects on the flycatcher. In the absence of MIS monitoring for this species, the potential management effects of management activities on flycatchers cannot be measured and viability not ensured."*

Response: Willow flycatcher, a state-listed species, was not selected as the MIS for wet meadows because it is a rare species that has been detected in few areas on the LTBMU. It would not be expected to be found on all or even most of the wet meadows on the LTBMU nor in the Sierra Nevada. Because willow flycatcher does not always occur where one would expect based on habitat quality and quantity, it is likely that factors other than the effects of Forest Service management activities on habitat are influencing its population trends and relationship to habitat changes.

The willow flycatcher is a Forest Service Sensitive (FSS) species. These species are managed by Forest Service policy to conserve the species so that they do not become endangered or threatened because of Forest Service actions. It is also Forest Service policy to manage NFS lands such that habitats of FSS species remain well distributed throughout their geographic range on NFS lands (FSM 2670.22). In addition, as a Forest Service Sensitive species, current monitoring data will continue to be collected and used to inform management, although the level and type of wildlife (and other) monitoring will depend on available funds, evolving protocols, available partnerships, etc. Monitoring of and survey for TES species have objectives that are different than the regulatory requirement for MIS (monitoring of population trends and determining relationship to habitat changes). These different objectives lead to differences in appropriate monitoring scales, protocols, sampling designs, etc. In addition, it is often difficult to determine population trends and relationship to habitat changes for rare species, such as TES species, because of difficulties in obtaining statistically significant sample sizes.

As the forest plan is implemented through projects, Forest Service policy (FSM 2670.32) states that all programs and activities will be reviewed as part of the NEPA process to determine the potential effect of such proposed activities on sensitive species. Further, policy states that the impacts of such activities must be avoided or minimized and that any permitted activities must not result in a loss of viability or create significant trends toward Federal listing. For an evaluation of viability, please see Appendix E.

PC 245: The Forest Service should ensure viability of Sierra Nevada yellow- legged frog.

Sample Comments: *"In our view, MIS monitoring for the Pacific tree frog will not be adequate to determine impacts to the Sierra Nevada yellow-legged frog due to their vastly different habitat requirements and greater sensitivity to aquatic pollution and pathogens."*

Response: Please refer to the FEIS MIS section of Chapter 3; we have included a statement that addresses why the list of MIS selected is appropriate for the LTBMU.

PC 8&240: The Forest Service should ensure viability of spotted owls in the Basin.

PC 207: The Forest Service should ensure the viability of species present on the LTBMU.

PC 219: The Forest Service should ensure the viability of CASPO, BBW and marten on the LTBMU.

PC 240: The Forest Service should ensure viability of species relying on late seral, closed canopy forest, including California spotted owl, American marten, northern goshawk and northern flying squirrel.

PC 244: The Forest Service should ensure viability of sensitive species affected by outdoor recreation.

PC 245: The Forest Service should ensure viability of Sierra Nevada yellow- legged frog.

PC 286: The Forest Service should use monitoring information to actually achieve species viability by adopting a viability standard.

PC 288: The Forest Service should add a forest-wide standard (not a guideline) requiring the Forest Service to maintain at least viable populations of all MIS on the LTBMU planning area.

PC 297: The Forest Service should provide adequate snags to ensure viability of California spotted owl.

PC 298: The Forest Service should include a standard that protects dense closed canopy forest habitat from logging to ensure viability of the California spotted owl.

"Most importantly, the new plan needs to include an enforceable forest-wide standard requiring the Forest Service to maintain viable populations of the native wildlife species that live in the LTMBU, such as the California spotted owl and the black-backed woodpecker." (PC 207)

"As discussed below, Alternative B proposes to expand recreation in the Basin, including the use of motorized vehicles and snowmobiles, and expansion of ski area development. This expansion has the potential to threaten the viability of species sensitive to recreational impacts, particularly noise, including but not limited to the bald eagle, osprey, peregrine falcon, Northern Goshawk and American marten (as discussed.)" (PC 244)

"The Sierra Nevada mountain yellow-legged frog is imperiled in Tahoe. However, the draft Plan does not contain any monitoring requirements to ensure that management activities will be effectively implemented and successful in ensuring continued viability of the remaining populations….Without monitoring to determine whether these measures are being effectively implemented, the LTBMU cannot ensure the future viability of this species." (PC 245)

"The DEIS (pp. 3-277 through 3-280) discusses selection of MIS and monitoring of MIS. Yet, without a clear, substantive forest-wide standard requiring that viable populations of MIS be maintained on the LTBMU planning area, MIS populations could be monitored, but not maintained, thus leading to extinction or extirpation from this forest …" (PC 286)

"The revised plan needs to include a standard requiring the Forest Service to maintain viable populations of the native wildlife and plant species that occur on the LTMBU, and

that provides flexibility should previously unidentified species be found, should new threats arise, or should new science emerge." (PC 288)

"In our view, the non-existent standards and loose guidelines do not ensure that future logging will avoid rendering existing late seral habitat unsuitable for late seral, closed canopy species for the foreseeable future, thus leading to the loss of viable and well distributed late seral species populations in the Basin." (PC 8 (combined with 240))

"The standards and guidelines that relate to the California spotted-owl are not scientifically supportable and will not ensure that the viability of this species will be maintained…" PC 8 (combined with 240)

"…in order to ensure viability of martens, a standard should exist that maintains dense, late-seral forest and retains large snags, diverse tree structure, large downed woody material, and patches of decadent trees in marten habitat."(PC 8 (combined with 240))

"Consequently, a standard that protects dense closed canopy forest habitat from logging is necessary to ensure viability of the owl." (PC 298)

"Yet the Draft Plan does not provide for such snag protection in spotted owl habitat thus further undermining the species' viability." (PC 297)

"There is no analysis in the DEIS or Draft Plan that forms the basis for a rational conclusion that there exist sufficient standards and guidelines to ensure and maintain viable populations of species, including specifically the black-backed woodpecker, California spotted owl, and marten."(PC 219, viability comment only)

Response: The design of the Revised Forest Plan (LRMP) was created to maintain species viability where that is possible and it is based on the best available science at the time of writing. The LRMP's standard and guidelines (S&G) with associated desired condition, strategies, objectives, and limited operating periods (Appendix E – E.2.5) have been developed for maintaining viability but effects on viability cannot be determined at this programmatic scale since the plan does not authorize any activities that might actually cause adverse impacts to species or habitats (refer to Appendix O). Rather, any impacts to species (beneficial or otherwise) only come from site-specific activities and project-level decisions, of which the scope, location, and design are unclear at the time of the LRMP approval.

The specifications (i.e. desired conditions; S&Gs) in the LRMP have set the parameters on the scope of future project activities, and in no way require (or even encourage) projects to be designed to maximize outputs. The LRMP is not the sole constraint on project-level activities and project-level decisions can (and usually do) include additional design features to minimize adverse impacts to species.

It is understood that new science is likely to be developed between the time of writing the LRMP and the time when projects are implemented, which can lead not only to different project design features but also to LRMP amendments as necessary to maintain viability

of the selected species. It is also understood that the LTBMU is much smaller in size than most Forest Service units and it does not (cannot) provide for viability within the planning unit area for many of the wide ranging native vertebrate species based on its small size and geographic location between the Great Basin of Nevada and the Sierra Nevada mountain range. However, the LTBMU does function and provide for conservation of species over time by providing for habitat to support species reproductive individuals and provide for connectivity to surrounding habitat that allows for greater interaction and reproductive function for wide ranging species.

Water Quality and Soil Erosion; Watershed Condition

PC 184: The Forest Service should expand the water quality analysis in the EIS.

Response: The LTBMU presented the results of numerous analyses related to water quality as described in the FEIS in Section 3.4.24. Analyses relevant to water quality include many metrics including water chemistry, soil quality, erosion modeling, and stream condition inventories. The results of these analyses are summarized in this section of the FEIS to describe the affected environment, as well as inform analysis of environmental consequences. Full reports containing the results of these analyses are available on the external LTBMU website, if they were completed in the past 10 years. Older reports can be obtained by request from the USFS, using the bibliography also posted on the external website publications page. Specific responses to EPA comments are included at the end of this Response to Comments following the Cumulative Environmental Consequences section.

PC 186: The Forest Service should discuss how urban facility management will affect TMDL.

Sample Comment: "*Although not described in the Forest Plan or its Draft EIS, LTBMU's urban facilities, including administrative and recreational structures, contribute to the Lake Tahoe TMDL urban stormwater source category load….. In the Final EIS, EPA recommends that the Forest Service discuss how management of LTBMU's urban facilities will contribute to achievement of the Lake Tahoe TMDL urban stormwater source category wasteload allocations."*

Response: Strategies and objectives for management of these facilities are described in Section 2.2 of the Forest Plan for the "Built Environment". Implementation of BMPs as described in this section is consistent with, and addresses goals established in the Lake Tahoe TMDL for the US Forest Service.

PC 187: The Forest Service should include in the plan a requirement to meet TMDL 20-year load targets.

Response: Please see under Physical Resources Objectives, under Water Quality and Soil Quality strategies, and standards and guidelines under Water Quality in the Revised Forest Plan. It should be noted there are no specific load targets assigned in the Lake Tahoe TMDL implementation plan to a single land management agency.

PC 183: The Forest Service monitoring plan should provide more detailed information on TMDL load targets.

Response: The USFS is actively engaged in the TMDL monitoring and reporting, which is currently in progress, and is consistent with, but separate from the LTBMU Forest Plan We disagree that the USFS monitoring plan should provide more detailed information on the TMDL load targets. As described in the Lake Tahoe TMDL document approved by EPA, Lahontan Regional Water Quality Control Board, and Nevada Department of Environmental Protection, TMDL targets have been established for various loading categories, not for specific agencies. As described in the Lake Tahoe TMDL document, the TMDL regulatory agencies are working with upland source category land managers to determine the monitoring and reporting that will be required on an annual basis, beginning in 2013.

PC 114: The Forest Service should create a more effective BMP program and address current inadequacies of BMPEP.

Response: As presented in Section 3.4.24.2, of the FEIS, under Soil Erosion, we believe the USFS BMP program has actually been quite effective at the LTBMU. We disagree that the BMPEP program is inadequate, as the BMPEP program has proven to be effective at identifying BMP implementation and effectiveness deficiencies when they occur, and triggering an adaptive management response before resulting in significant harm to water quality. Annual BMPEP reports are posted on our external website. At the Regional level the USFS has used the results of the BMPEP program to update and improve BMP program guidance, as described in the recently completed Region 5 USFS, Water Quality Management Handbook, in December of 2011.

PC 185: The Forest Service should increase the BMP objective to 100% for effectiveness and implementation.

Response: An annual 100% implementation and effectiveness rating for BMPs (as evaluated through the USFS BMPEP) is unrealistic and unreasonable. In addition, a 100% standard is unnecessary to project the beneficial uses of water quality. A ‘not implemented’ and/or ‘not effective’ rating does not mean a discharge to water quality occurred and/or impacted beneficial uses. On the contrary, as documented in our annual reports, this has occurred rarely on the LTBMU. Typically a ‘not implemented’ or ‘not effective’ rating identifies a water quality threat, which is then resolved through adaptive management at that location. Annual BMPEP reports are posted on the LTBMU public website.

PC 117: The Forest Service should monitor harmful impacts to soil and water.

Response: Agreed. A variety of metrics are proposed in Appendix A.

PC 90: The Forest Service should complete an analysis of all future and ongoing stream restoration projects in the LTBMU that are connected to or flow through roadless areas and provide greater protection to these headwater areas.

Response: Please see section 3.4.24.3 of the FEIS for analysis of the currently planned (defined as in planning phase currently and/ or implementation has been funded and initiated) and future stream restoration program. Project level analysis will occur through the project specific NEPA process, and ongoing strategic planning of the LTBMU watershed improvement program.

PC 142: The Forest Service should use less intrusive techniques to restore stream channels.

Response: The design of stream channel restoration projects occurs through a comprehensive and systematic process of ecosystem assessment and environmental analysis that ensures the least intrusive and most successful restoration approach to restore ecosystem function. Each stream channel restoration project is considered individually, and multiple options are considered for each project. Please see Part 2.1 Ecological Sustainability strategies for Watershed Restoration in the Revised Forest Plan.

PC 112: The terms of the Regional Waiver (timber waiver) should be incorporated into the Forest Plan in order to meet the monitoring requirements of the 1982 Planning Rule (water quality).

Response: As stated in the Section for Relationship to Plans of other Agencies, the Forest Plan is consistent with Lahontan Basin Plan (and by inference any associated regulatory measures). It is not appropriate for the Forest Plan to incorporate Lahontan's specific regulatory measures, as these are the responsibility of Lahontan to define, enforce, and revise/update. The current Lahontan timber waiver will be updated in 2014. Forest Plan monitoring (Volume III, Appendix A) serves a different purpose than the Timber Waiver and was developed to meet the requirements of the Planning Rule.

PC 125: The Forest Service should determine whether wilderness designation improves the clarity of Lake Tahoe.

Response: Land use designation cannot be evaluated alone in regards to impacts to lake clarity, when not put into context with scale and effects of implementation of the strategies and objectives. Please see the Cumulative Watershed Effects of Alternatives discussion presented in Chapter 3 of the FEIS. The source of major lake clarity impacts are disclosed in the TMDL documentation, which is the best current evaluation available.

PC 126: The Forest Service should consider management effects on downstream water quality outside the Tahoe Basin.

Response: The only outlet for downstream impacts is the Lower Truckee River. The Desired Conditions, Strategies and Standards and Guidelines described in the Revised Forest Plan under Water Quality protect the water quality of the Lower Truckee from USFS management activities at the same level as in-basin waterbodies.

PC 127: The Forest Service should take actions to protect and improve Lake Tahoe's clarity including clear limits on over-snow logging and slash production in or near streams, minimize winter and summer motorized use.

Response: Numerous Desired Conditions, Strategies, Objectives, and Standards and Guidelines described in the Draft Plan under Water Quality and Forest Vegetation, Fire, and Fuels are designed to protect, and/or improve the water quality of tributaries and runoff draining to Lake Tahoe. The Revised Forest Plan also requires inclusion of additional project-specific buffers around water bodies and SEZs.

PC 128: The Forest Service should address water quality by including in the Plan clear and enforceable standards.

PC 131: The Forest Service should maintain strict water quality protections to limit erosion.

PC 136: The Forest Service should protect Lake Tahoe.

PC 141: The Forest Service should consider how its actions affect Lake Tahoe.

Sample Comments: *"Please consider the Lake (the reason there is a Lake Tahoe Basin!) The runoff from all the land in the Basin is affecting our Lake."*

"Because the Lake Tahoe Area is so urbanized, I feel you must be very strict in your management plan. The health of the forest will insure the health of Lake Tahoe and my water."

"The forest plan will cover most of the Lake's watershed, and thus Forest Service decisions could help or hurt the effort to keep Tahoe blue so policy needs to walk the fine line of impact on Recreation and the optimal forest health while achieving Lake Clarity."

Response: This comment is addressed in Section 3.1 Physical Resources Standards and Guidelines (of the Revised Forest Plan), and Section 1.2 Water Quality Desired Conditions (of the Revised Forest Plan). Water quality protection is achieved through a combination of Forest Plan direction and project specific Resource Protection Measures.

PC 146: The Forest Service should not extend protection of SEZs to non-SEZ areas.

Response: In some cases, buffers that extend beyond SEZ boundaries are needed to ensure adequate protection of SEZs and water quality.

PC 188: The Forest Service should divert the Upper Truckee into settling ponds to collect sediment and thus improve lake clarity.

Response: Specific design approaches and alternatives for restoring individual streams are addressed through project level NEPA analysis, not Forest Plan Strategies, Standards, and Guidelines.

PC 193: The Forest Service should analyze the impacts of roads and ORV trails on water quality.

Response: Strategies and Standards and Guidelines described in the Revised Forest Plan under Water Quality are designed protect water quality equally under all the alternatives, related to both permanent and temporary roads. The analysis of direct, indirect, and cumulative effects of roads and OHV trails, under all the alternatives is described in the FEIS under Section 3.4.24 under Water Quality and Soil Erosion and Section 3.5 under Cumulative Watershed Effects.

PC 348: The Forest Service should mitigate the effects of OSV use on natural resources and document the effectiveness of the mitigations used.

Response: The USFS is not aware there is any evidence of water quality impacts occurring in the Tahoe Basin tributaries that could be attributed to OSV use, such as evidence of excessive soil disturbance, detections of polycyclic aromatic hydrocarbons /semi-volatile compounds in Tahoe tributaries or lakes, or toxicity impacts on aquatic biota as measured through macro-invertebrate bioassessments. A Draft "Stream Condition Assessment of the Lake Tahoe Basin in 2009 and 2010 using the River Invertebrate Prediction and Classification System (RIVPACS)" report, conducted through a SNPLMA research agreement with Humboldt State University, indicates that overall the majority of Tahoe Basin streams are in good to excellent condition as it relates to macro-invertebrate health (O'Dowd and Stubblefield, in prep). Future analysis of these data could be performed to look at stream condition ratings that are downstream of high use OSV areas, to get even more specific understanding of macroinvertebrate community response to designated OSV areas. Therefore, we do not believe there is an effect that needs to be mitigated nor documented, based on the relatively small scale of OSV use that occurs within the LTBMU. It is very clear that the transition from two-stroke to four-stroke engines, results in less pollutant emissions. Four-stroke engines are currently required by LTBMU snowmobile permittees, which is where some of the highest concentration of OSV use occurs in the Basin. Designated areas for public OSV use are identified on a Snowmobile Area map in the Revised Forest Plan (number 18) and on the published LTBMU Snowmobile Guide map.

PC 191: The Forest Service should better define how it will create resiliency in watersheds.

Response: The strategies described under Watershed Restoration in the Revised Forest Plan describe how the Forest Service will create hydrologic and geomorphic resiliency in watersheds.

PC 192: The Forest Service should emphasize the role of natural processes in watershed health.

Response: Agreed; the Watershed strategies on page 47 of the Revised Forest Plan are designed to maintain and restore hydrologic and geomorphic processes within the natural range of variability.

PC 145: The Forest Service should protect watersheds and water quality.

Response: Water quality and watershed management remain high priorities in the Revised Plan. Numerous Desired Conditions, Strategies, Objectives, and Standards and Guidelines described in the Revised Forest Plan are designed to protect, maintain, and improve watershed health and water quality.

PC 414: The Forest Service should manage water quality on all lands, including urban lots.

Response: The Desired Conditions, Strategies, Objectives, and Standards and Guidelines described in the Draft Plan under Water Quality apply to all USFS lands, including urban lots.

Wilderness

PC 18: The Forest service should examine the direct effects, indirect effects, and cumulative impacts of placing the majority of IRAs and CIRAs in zones where development is allowed, and ensure that Wilderness eligibility is maintained.

Sample Comment: *"In our scoping comments we requested that the LRMP and EIS include a thorough examination of the direct effects, indirect effects and cumulative impacts of a proposal to place an IRA or other roadless area in a management zone that allows activities that could impair its wilderness character."*

Response: There is no development allowed in IRAs, which includes roads. CIRAs are not a management area and have no requirements to maintain wilderness eligibility. IRAs are managed to retain their roadless character which would also ensure that the wilderness character is maintained. The analysis in the FEIS has been updated to include effects to IRAs from the five alternatives considered in detail.

PC 16: The Forest Service should analyze the eligibility and suitability of Citizens Wilderness Inventory (CWI) lands for wilderness recommendation

Please see Section 2.5 in the FEIS – Alternatives Considered But Eliminated From Detailed Study.

Cumulative Environmental Consequences

PC 13: The Forest Service should improve the cumulative effects analysis by including more projects in the analysis

PC 173: The Forest Service should improve the analysis of cumulative impacts.

Sample Comment: *"The DEIS fails to adequately and accurately disclose and analyze the cumulative loss of snowmobile areas across the "Visitor Market Zone."*

"The 25,000 acres proposed for logging in the LTBMU"

"Lake Tahoe Basin Multi-Jurisdictional Fuels Reduction Strategy. This strategy has characterized 68,000 acres as needing treatment in the Lake Tahoe Multi-Jurisdictional Fuels Reduction Strategy of 2007 which is embedded in a 208,800 planning landscape (p. vi)."

"General statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided."

Response: The analysis of cumulative effects is included in Section 3.5 of the FEIS. As described in the opening paragraphs of this section, projects that are in the process of implementation and projects that have signed NEPA compliant decisions are listed in Appendix K and in the project record and accounted for in the effects analysis for each resource. The Lake Tahoe Basin Multi-Jurisdictional Fuels Reduction Strategy was included in the cumulative effects analysis for Forest Vegetation, Fire and Fuels with Section 3.5 of the FEIS.

The analysis of cumulative effects is provided in Section 3.5 of the FEIS. The cumulative effects of treating approximately 25,000 acres over the next 15-20 years are disclosed in Section 3.5.2 under the Forest Vegetation, Fire and Fuels heading. Cumulative effects from OSV use have been added to Section 3.5.2 under the Recreation heading.

PC 78: The Forest Service should provide more detailed info about past projects that affect current conditions.

Response: As stated in Section 3.5 of the FEIS, it is neither possible nor useful to describe the cumulative effects of all past projects. As noted by the Council for Environmental Quality (CEQ) in an interpretive memorandum issued on June 24, 2005 regarding analysis of past actions, and consistent with Forest Service NEPA Regulations (36 CFR 220.4(f)) (July 24, 2008), the effects of past actions can generally be captured by a description of the affected environment, which is detailed in each individual resource section.

PC 315: The Forest Service analysis should consider cumulative effects on access (incremental closures) for alternatives that propose wilderness.

Sample Comment: *"The DEIS fails to analyze and consider the cumulative loss of recreational opportunity across the Visitor Market Zone. Tens of thousands of acres of public recreational lands have been closed inch by inch without any subjective or objective consideration previously, or in the current project."*

Response: Under all alternatives analyzed, the cumulative effects analysis for recreation was limited to the Lake Tahoe Basin region. In Section 3.4.27 of the FEIS, Consequences Related to Wilderness, the effects of wilderness designations on access are discussed. Effects to recreation access would be greatest under Alternatives C and D due to recommendation of additional wilderness areas, which would result in the prohibition of mechanized and motorized uses in those areas. Alternative C recommends that the Dardanelles Inventoried Roadless areas be given wilderness status and Alternatives D recommends that the Freel Inventoried Roadless Area in addition to the Dardanelles be

given wilderness status. Under all of the other alternatives (including the preferred alternative) there would be no change in the amount or types of recreation access because no additional wilderness is proposed.

PC 474: The Forest Service should consider the cumulative impacts of displacing mechanized users to different areas, necessitating additional travel.

PC 373: The Forest Service should consider the cumulative air quality impacts of displacing OSV users to areas outside the Basin, necessitating additional travel.

Response: Cumulative effects are found in Section 3.5 of the FEIS. That section has been updated to include the cumulative effects of displacing mechanized and OSV users, necessitating additional travel.

Response to EPA Letter

We believe that many of the EPA's recommendations have been addressed in the revised Forest Plan. The following responses include many references to the Forest Plan that show how those recommendations have been addressed. Please note that the Forest Plan is a programmatic document and is essentially strategic in nature. The Plan provides guidance for project design and development, and lacks the specific resource protection measures found in project planning documents. Similarly, the analysis in the FEIS is programmatic in nature. It discloses the general effects of activities and uses but does not disclose site-specific effects because these are unknown.

Please clarify what roads and trails are in the ATM plan and identify the roads and trails that may be a part of fuels treatment projects.

Response: There is no single ATM for the LTBMU. ATM plans have been developed for specific areas of the basin as well as part of projects where access changes are needed to accomplish project goals. The road and trail system is described in the FEIS in Table 2-1 and in the Access and Travel Management Section of the FEIS (3.4.1).

As stated in Section 2.2 of the FEIS, no programmatic expansion of the road system is proposed in any alternative. However, if a need for a new road is identified in a project, the Forest Plan does not prohibit construction, but provides guidance on route location and resource protection measures to be included in the project.

All roads in the system are potentially available for all administrative uses including vegetation management. Trails are generally not used for vegetation management projects. In the rare cases where trails are used by vehicles for a specific project, they are returned to their original width and condition after the project.

Specific roads and trails used for vegetation management are described in the NEPA documents for individual projects. Specific future needs are unknown at this point. Where new roads are needed, they are nearly always temporary roads. An estimate of average temporary road construction is included FEIS Section 3.4.22-Soil Resource.

Please include projections for the miles of roads and trails that will be added as a result of Alternative B. If this is quantified somewhere else in the document, please reference it here. If these are linked to the objectives, please state the objectives more clearly here (p. 66 of the Forest Plan).

Response: As stated in Section 2.2 of the FEIS, no programmatic expansion of the road system is proposed in any alternative. However, if a need for a new road is identified in a project, the Forest Plan does not prohibit construction, but provides guidance on route location and resource protection measures to be included in the project.

The description of alternatives in Section 2.3 of the FEIS has been updated to include the projections of unauthorized biking, hiking and equestrian trails that could be adopted onto the system.

If any miles of roads or trails are added as a result of fuel reduction targets that are presented in this plan, please discuss how they will or will not be managed so as to contribute to meeting the 12% reduction in fine sediment loading for the Basin.

Response: Under all alternatives classified roads, temporary roads, and trails will be designed retrofitted and maintained to minimize erosion and sediment transport potential, in accordance with relevant state and federal law, regulation, and policy (as already described in the Water Quality Section (3.4.24.3) of the FEIS). We have added additional references in this section to recently updated/developed Regional and National BMP handbooks, although these are already identified in our strategies section of the Forest Plan. Trails would not be added in response to fuel reduction objectives.

Basin-wide the USFS has already implemented a large volume of road decommissioning and road BMP retrofits, which we believe has substantially contributed to achieving the upland TMDL goal (See FEIS Sections 3.4.24.2, Water Quality, Overview of the Affected Environment; and 3.4.1.1, Access and Travel Management, Background). Additional opportunities will continue to be implemented as identified through project level planning as described in section 3.4.24.3.

For clarification the actual TMDL target is not clearly described in your letter. The 15 year TMDL target is a 12% reduction in the 9% of fine sediment loading estimated to originate from all Forested uplands, not just NFS lands.

The Forest Plan revision should specify actions for aggressively treating LTBMU lands to ensure the forest upland sources, on a basin wide scale, reduce fine sediment pollutant loads by 12 percent within twenty years and ultimately by 20 percent overall.

Response: For clarification the actual 15 year TMDL target is a 12% reduction in the 9% of fine sediment loading estimated to originate from Forested uplands. The 60 year target is a 20% reduction of the 9% of fine sediment loading, which is equal to 1.8% total reduction in 60 years.

The revised Forest Plan includes many Strategies for water quality protection (Section 2.1, Physical Resources Program Strategy, Water Quality and Soil Quality) and an Objective (Section 2.1, Physical Resources Objectives) to implement actions towards achieving the load reduction targets for upland sources identified in the Lake Tahoe TMDL during the 15 year life of the Plan. This objective has been modified from the Draft you reviewed, and is restated below:

"Track and report all activities to reduce sources of sediment and nutrient loading from USFS lands, through the Tahoe Basin Upland TMDL tracking and reporting program."

The revised Forest Plan also includes the following standard and guideline which when taken together will be used to prescribe project-specific resource protection measures:

"Design all Forest management activities to prevent violations of applicable water quality standards."

"For waters designated as "Water Quality Limited" (Clean Water Act Section 303(d)), participate in the development of Total Maximum Daily Loads (TMDLs) and TMDL implementation Plans. Execute applicable elements of completed TMDL implementation Plans."

The Forest Plan should include a requirement for the LTBMU to develop and implement a plan for achieving the 20-year pollutant load reduction targets. The plan should also include measures to reduce loads from discrete disturbances on the forested landscape (e.g. roads, ski runs, fuels management projects) as well as address pollutant loads from stream channel reaches managed by the LTBMU (see also first comment under "Monitoring" below).

Response: The following Forest Plan guideline requires implementation of existing TMDL Implementation Plans:

"For waters designated as "Water Quality Limited" (Clean Water Act Section 303(d)), participate in the development of Total Maximum Daily Loads (TMDLs) and TMDL implementation Plans. Execute applicable elements of completed TMDL implementation Plans."

In addition, all management activities and uses would be subject to the following:

"Design all Forest management activities to prevent violations of applicable water quality standards."

"Apply current version of the PSW Region Best Management Practices as described in Forest Service Handbook direction for Soil and Water Conservation, Water Quality Management, and Forest Service National Core BMP Technical Guide to all management activities.[Standard]"

The Final EIS should discuss how roads and landings associated with fuel reduction projects will be monitored and modeled to achieve TMDL targets.

Response: Modeling to estimate achievement of TMDL basin-wide targets can only be done by developers of the TMDL model. The USFS did not develop and does not have access to this model.

Forest Plan level monitoring is described in Appendix A. Roads and landings are monitored using the Best Management Practices Evaluation Program (BMPEP) protocols. BMPEP monitoring results demonstrate a 13% improvement in overall implementation and effectiveness over the life of the monitoring program (See FEIS Section 3.4.24.2, Water Quality, Overview of the Affected Environment).

Results of our fuels reduction monitoring efforts and modeling we conducted at the hillslope scale is described in FEIS Section 3.4.24.2, Overview of the Affected Environment, and the monitoring reports are all available on our website (http://www.fs.usda.gov/detail/ltbmu/maps-pubs/?cid=FSM9_046480). That information

can be used by the State Regulatory agencies to attempt to quantify TMDL load reductions.

The final Forest Plan should include a requirement for LTBMU to develop a monitoring and modeling plan in order to, by the end of the planning period (20 yrs), comprehensively quantify TMDL loads from LTBMU lands (forested and urban) since 2004. See "Monitoring and Modeling of SEZ Restoration Projects" and "LTBMU Urban Facility Stormwater Loading" sections below for additional comments concerning comprehensive TMDL tracking and accounting.

Response: The Lake Tahoe TMDL has no requirement for managers to "quantify loads" from upland sources. Lahontan staff requested that the USFS take the lead, in coordination with other upland land managers, in developing a proposal (that would be consistent for all forest management agencies in the Basin) , for upland source area TMDL tracking and reporting. We are currently engaged and will continue to stay engaged in this process. The agreed upon outcome is that TMDL regulatory agencies (Lahontan and NDEP) will use select metrics within the Tahoe Regional Planning Agencies Environmental Improvement Program (EIP) performance measures tracking and reporting program to evaluate progress for upland and stream channel sources. The LTBMU has and will continue to provide data to the EIP performance measure tracking and reporting program. In addition, the LTBMU will provide key findings (and citations) developed through its internal monitoring programs, that provide useful information for evaluation of TMDL implementation. The LTBMU just provided this kind of input in May of 2013, in response to a request submitted by NDEP and Lahontan staff. Information regarding the upland tracking and reporting program has been added to the FEIS to clarify the situation.

The Final EIS should discuss the measures that may be necessary to reduce nutrient loading from forested non-urban areas.

Response: Sources of nutrients related to forested uplands are primarily tied to reducing erosion processes, which is addressed throughout the FEIS (see Section 3.4.24.3, Water Quality in particular) and in the Forest Plan, as described above.

The final paragraph of page 3-479 states that stream channel erosion represents 2% of the total baseline fine sediment load to Lake Tahoe presented in the TMDL; the correct value is 4% (TMDL Report, p. 7-3).

Response: The Lahontan Basin Plan TMDL amendment, Tahoe 5.18-2, cites 3%. This correction has been made.

EPA agrees with the statement that "Current TMDL targets [presumably of the Blackwood Creek bedded sediment TMDL] also need to be incorporated into the new Forest Plan," but seeks clarification on how this will be done (p. 3-480)

Response: We have actually removed this statement, and provided the following clarifying language relative to the Blackwood TMDL.

"All large scale opportunities for stream channel restoration actions have been completed in the Blackwood watershed, and LTBMU monitoring programs are in place to measure attainment of the Blackwood TMDL targets over time."

EPA recommends that project monitoring and analysis of ambient water quality data should have an additional objective incorporated into the Forest Plan for the estimation and quantification of TMDL loading for those projects.

Response: This is not required in the TMDL adopted by your agency. Water Quality data for stream channel restoration projects is a very expensive and unreliable indicator of project level effectiveness related to TMDL loading. This is the reason the Blackwood Creek TMDL was based on geomorphic metrics. The LTBMU has and will continue to perform project level effectiveness monitoring on stream channel restoration projects (see also Appendix A, Forest Plan Monitoring), based primarily on geomorphic metrics. The results of this monitoring will be provided to the TMDL regulatory agencies, along with metrics required as part of upland TMDL tracking and reporting program.

External information sources for soil erosion monitoring (such as that provided in Lahontan RWQCB Notices of Violation (NOVs)) should also be included

Response: Regulatory actions such as NOVs do not constitute monitoring, they only document when permit conditions were not met, regardless of actual threat to water quality. In our past experience, the NOVs we have received often inaccurately characterized actual conditions, which we have documented in written responses to those NOVs.

We include all validated and legitimate external sources of monitoring and research for consideration in our management decision making, for all resources (see Appendix A, Forest Plan Monitoring).

The Final EIS should provide further details concerning how monitoring will inform TMDL reporting and tracking.

Response: The Tahoe TMDL adopted by your agency provides little direction on this issue. Lahontan staff acknowledge that the Water Board has not determined how best to implement the tracking and reporting requirement. They have requested that the USFS take the lead, in coordination with other upland land managers, in developing a proposal

(that would be consistent for all forest management agencies in the Basin) for the TMDL regulatory agencies to review and adopt if acceptable, for Upland TMDL tracking and reporting. We are currently and will continue to be engaged in this process. This information has been added to the FEIS to clarify the situation.

Our suggested addition to Sec. 3.4.21[sic].2 is to the discussion of Heavenly Valley Creek on p. 3-498. This discussion should refer to the Heavenly Valley Creek TMDL, and the status of implementation.

Response: The status of compliance with the Heavenly TMDL, as well as other Heavenly Creek water quality standards, is already described in this section (FEIS Section 3.4.24, Water Quality). It is provided here again for your convenience:

"Water quality data indicates significantly improved conditions within the Heavenly Ski Area, with the water quality well below the TMDL standard for Heavenly Creek. There are still persistent exceedances of standards for iron (which appears to be natural causes) as well as chloride at all three Heavenly creek WQ sites; however these were also exceeded at the undisturbed reference site on Hidden Creek. State effluent standards for the California Lodge parking lot, Edgewood Creek, and below the Boulder parking lot are also typically exceeded. Heavenly has recently completed new BMPs at both these facilities, and is continuing to investigate and improve the performance of these BMPs."

Measures that will improve the rate of BMP implementation and effectiveness to 100% in both categories should be proposed and included in the Forest Plan.

Response: We do not believe a 100% effectiveness rating is realistic, nor is it necessary to protect water quality. The USFS BMPEP monitoring program process implemented on the LTBMU, and as described in our Regional and National handbooks, includes rapid management response to ineffective ratings to correct identified deficiencies, as well as an internal evaluation to ensure lessons learned are incorporated in project design and implementation to minimize future deficiencies. We did correct the current Forest target in the FEIS, which is to achieve 95% effectiveness ratings. We also updated this section to identify the BMPEP results in 2011 and 2012 which reported 95% and 94% effectiveness ratings, respectively.

The watershed condition assessments should be coordinated with implementation of the CRAM.

Response: The watershed assessment process is a national Forest Service protocol for assessing large scale watershed condition, as described in FEIS Section 3.4.26, Watershed. CRAM is a regional methodology for assessing the condition of riparian ecotypes. Any coordination of these two methodologies would need to occur at the Regional and National level.

The discussion of cumulative water quality and watershed condition effects should be updated to reflect the 2011 TRPA Threshold Evaluation that is now available (http://www.trpa.org/default.aspx?tabid=l 74), although the updated information may not materially affect the conclusions reached concerning threshold attainment (p. 3-529).

Response: The FEIS Section 3.5.2, cumulative effects, has been updated to include this information.

In the Final EIS, EPA recommends that the Forest Service discuss how management of LTBMU's urban facilities will contribute to achievement of the Lake Tahoe TMDL urban stormwater source category waste load allocations.

Response: The approach you describe above this recommendation is not required in the TMDL adopted by your agency, and has never been proposed to us by the Lahontan water board. The nature of many of these facilities, (i.e. campgrounds) are more upland than urban, because of the degree of forested buffer around them and lack of connectivity to urban stormwater drainages. Our management of these areas, in the context of reducing pollutant loads, includes continuing to implement BMP upgrades, as described in Section 2.2 of the FEIS. We will be tracking and reporting accomplishments as part of our Upland source area tracking and reporting program.

We recommend that the Forest Service implement BMPs and work with the interagency Smoke Management Group to reduce emissions from prescribed bums and wildfires to the greatest possible extent and incorporate this into specific objectives in the Forest Plan. If these are in the Forest Plan, then they should be described completely and accurately in the Air Quality section of the EIS.

Response: We do participate in interagency smoke management coordination. While we are not aware of a specific group for this purpose, we coordinate with many groups, including, but not restricted to CARB, adjacent Forests, private and state prescribed fire practitioners, air quality control districts, as well as the Regional Forest Service air quality staff. Air quality strategies are described on p45 of the Draft Forest Plan. Air quality is regulated by CARB, utilizing national EPA standards, and is enforced by the air quality control districts. We believe that adherence to current regulation is adequate to maintain air quality.

Our fuels reduction program is designed to reduce smoke emissions from wildfires by removing fuels that could otherwise be consumed in a wildfire.

Please clarify why prescribed burning emissions are between about twice to over four times that of wildfire emissions. Clarify the discrepancy between the tables and figures, and provide further information regarding the assumptions and data that are used to derive the conclusions.

Response: The difference in the amount of acres of prescribed burning and wildfires primarily accounts for the difference in emissions. We have clarified this discussion in the FEIS, Section 3.4.2.

Consider how mitigation measures for black carbon and greenhouse gases can be incorporated into the Forest Plan.

Response: Nationwide Forest Service policy for carbon and greenhouse gas management is still being developed. We will implement this policy when it is finalized and will amend the Forest Plan if needed. We have incorporated desired conditions that would allow us to implement these policies. Current policy includes the following, which are referenced in the Design Criteria section of the revised Forest Plan:

- Forest Service Strategic Framework for Responding to Climate Change. Version 1.0. 2008 National Roadmap for Responding to Climate Change FS-957b 2011
- Navigating the Climate Change Performance Scorecard. A Guide for National Forests and Grasslands (Version 2) 2011

If it is still occurring, the Forest Service should vigorously manage grazing, especially in riparian and wetland areas that are functioning at risk in a static or downward trend in order to facilitate their recovery. If necessary, please discuss and incorporate protection measures and management actions in the Final Forest Plan/EIS.

Response: We have no active grazing allotments at present. A range section has been added to the FEIS (Section 3.4.18).

N.3. Comments Received from Federal, State, Local Agencies, and Elected Officials

As required in Forest Service Handbook (FSH) 1909.15 (Sec 25.1), comments and views of the appropriate Federal, State and local agencies, which are authorized to develop and enforce environmental standards, are presented in their entirety in the following section; this also satisfies the requirement in NEPA Section 102 (c).

Official comments to the Draft EIS were received from the following agency offices:

- State of California Department of Fish and Game
- California Tahoe Conservancy
- Douglas County, NV
- El Dorado County, CA
- Lake Tahoe Basin Fire Chiefs
- State of Nevada Department of Conservation and Natural Resources, Division of State Lands
- State of Nevada Department of Wildlife
- Placer County, CA
- City of South Lake Tahoe – City Council
- Tahoe/Douglas Fire Protection District
- Tahoe/Douglas Visitors Authority
- Tahoe Regional Planning Agency
- Tahoe Tallac Association
- United States Department of the Interior, Office of the Secretary (Washington, DC.)
- United States Department of the Interior, Office of Environmental Policy and Compliance, Pacific Southwest Region (San Francisco, CA)
- United States Environmental Protection Agency, Region IX
- Washoe Tribe of Nevada and California

State of California -The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95667
(916) 358-2900
http://www.dfg.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

August 29, 2012

Denise Downie
U.S. Forest Service - Lake Tahoe Basin Management Unit
35 College Drive
South Lake Tahoe, CA 96150

Subject: Comments on the Draft Environmental Impact Statement for the Draft Land Management Plan for the Lake Tahoe Basin Management Unit

Dear Ms. Downie:

The Department of Fish and Game (DFG) has reviewed the U.S. Forest Service's Draft Environmental Impact Statement (DEIS) for the revised Land and Resource Management Plan (Forest Plan) (project) for the Lake Tahoe Basin Management Unit (LTBMU). The revised document will provide an updated Forest Plan for the LTBMU that will guide management of National Forest System (NFS) lands in the Lake Tahoe Basin (LTB) for approximately the next 15 years. The proposal updates the management direction for 154,000 acres of NFS lands in California and Nevada by describing desired conditions, objectives, suitable uses, standards and guidelines and monitoring requirements. In accordance with the National Environmental Policy Act of 1969, the Forest Service has prepared a DEIS for the Draft Forest Plan.

The DFG is providing comments on the DEIS as trustee agency for the State's fish and wildlife resources. As trustee for the State's fish and wildlife resources, the DFG has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species. The DFG may also be a responsible agency for a project affecting biological resources where we will exercise our discretion (after the lead agency) to approve or carry out a proposed project or some facet thereof.

The LTB is one of the most challenging areas of the State to manage wildlife, principally black bears, due in part to the ever-increasing public recreational use in forest lands. We estimate the California black bear population has increased to over 30,000 bears statewide, and the LTBMU may have one of the highest bear densities in the State. There is a greater probability of human/bear interaction and this affects area homeowners, business owners, visitors, and individuals leasing forest service lands. The DFG requests that the Forest Plan include an analysis of the potential for negative human-bear interactions in the LTB.

All public agencies with jurisdiction in the LTB receive countless calls about bears breaking into homes, rummaging through trash, and scavenging for food at campgrounds. Often these unnatural behaviors are directly correlated to the misguided actions of humans. It is crucial for all agencies dealing with these complicated issues to make every effort to be consistent in management requirements and enforcement measures. Imposing mandatory use of food and garbage storage lockers in campgrounds, bear canisters in the backcountry, and placement of bear-resistant trash receptacles throughout the area will decrease the probability of bears and other wildlife becoming habituated to human food sources. Such strategies will help keep the public safe and bears alive and wild.

Conserving California's Wildlife Since 1870

Ms. Downie
Page 2
August 29, 2012

The DFG recommends implementing a Forest Order in the LTBMU with language similar to that of other National Forest Plans in California. Inyo National Forest Order states: "Possessing or storing any food or refuse unless stored in a bear proof container or another manner designated to keep bears from gaining access to the food or refuse." By incorporating a Forest Order, the law enforcement officers can more definitively cite individuals that are using gross negligence in food storage while visiting or living within the Tahoe Basin.

The DFG has recently focused its "Bear Aware" public education campaign in Tahoe. We would like to partner with the Forest Service to continue that outreach and suggest including a similar educational message about bears in the Forest Plan interpretive efforts section. We are all stewards of our State's wildlife resources and this Forest Plan represents an ideal opportunity to demonstrate commitment to wildlife conservation in the Tahoe Basin.

If you have any questions regarding these comments please contact Shelly Blair, Associate Wildlife Biologist, at (530) 295-3510, Patrick Moeszinger, Environmental Scientist, at (916) 358-2850, or Jeff Drongesen, Environmental Program Manager, at (916) 358-2919.

Sincerely,

Tina Bartlett

Tina Bartlett
Acting Regional Manager

ec: Tina Bartlett
Jeff Drongesen
Brian Naslund
Patrick Moeszinger
Shelly Blair
Mario Klip
Sara Holm
Christy Wurster
John Lawson
Marc Kenyon
Carol Singleton
Department of Fish and Game

Ann Bryant
CEO Bear League
bearsnsquirrels@thegrid.net

Brian Barton
State Park Forest Ranger
bbarton@parks.ca.gov

Lisa Fields
State Park Biologist
lfields@parks.ca.gov

STATE OF CALIFORNIA — THE NATURAL RESOURCES AGENCY

JERRY BROWN, *Governor*

CALIFORNIA TAHOE CONSERVANCY
1061 3rd Street
South Lake Tahoe, CA 96150
(530) 542-5580

August 29, 2012

Email to: comments-pacificsouthwest-ltbmu@fs.fed.us
Draft Land Management Plan
Lake Tahoe Basin Management Unit
35 College Drive
South Lake Tahoe, CA 96150

RE: Draft Revised Land and Resources Management Plan and Environmental Impact Statement

Dear Colleague:

Thank you for the opportunity to comment on the U.S. Forest Service Lake Tahoe Basin Management Unit's (LTBMU's) Draft Revised Land and Resources Management Plan (Forest Plan) and its associated Environmental Impact Statement (EIS). The California Tahoe Conservancy (Conservancy) focused its review efforts on Forest Plan elements related to Conservancy program delivery and the analysis of Alternative B of the EIS. My staff and I appreciated LTBMU's webinar and clear documents, especially the graphics comparing the effects of the alternatives, as we conducted our review. Our comments are as follows:

1. LAND ACQUISITION AND ADJUSTMENT PROGRAM: The EIS recognizes that LTBMU land ownership adjustments, or transfers, with the Conservancy and Nevada State Lands are the preferred means of improving management efficiency in the Lake Tahoe Basin. The Conservancy supports land ownership adjustments as a high priority and encourages LTBMU to proceed with these activities. The Conservancy also suggests that LTBMU consider the documentation process for the Forest Plan as an opportunity for public input on land transfer activities. This approach may help to accelerate the implementation of the program. (NOTE: Page 70 of the Forest Plan describes LTBMU's continued acquisition of one-acre parcels, but the EIS describes them as two-acre parcels.)

2. RECREATION ENVIRONMENTAL ANALYSIS AND MANAGEMENT DIRECTION: The Conservancy appreciates that all alternatives in the EIS recognize the value of Dispersed Recreation access. However, neither the Forest Plan nor EIS discusses the value of nonmotorized watercraft activities or the importance of the Lake Tahoe Water Trail. Only "water play" at beaches is described as a beach recreation use, and motorized and non-motorized boating is discussed in the aquatic strategies section primarily as a source of contamination from invasive species.

   The nonmotorized watercraft community relies upon launch access from existing LTBMU developed beach sites and facilities as well as safe harbor and recreation destinations accessed from the water. Such nonmotorized water-based activities may affect management of these areas, including beach operational hours, concessions, overnight parking, and launch and storage areas.

The Conservancy recommends that LTBMU include nonmotorized watercraft activities and the Lake Tahoe Water Trail in the discussion of public access in the Forest Plan and EIS. By acknowledging the role LTBMU lands play in the viability of nonmotorized activities in the Forest Plan, the needs of this large user group can be better recognized in sustainable recreation system planning and investment.

3. SANTINI-BURTON ACQUIRED LANDS / URBAN FOREST PARCELS: The Management Area description and area Standards and Guidelines specifically describe dispersed recreation (e.g., trails) and erosion control improvements as allowed development types; however, Table 5 indicates that Dispersed Recreation Sites are prohibited uses in the Management Area. Other Environmental Improvement Program (EIP) project uses, including staging and access routes to support the construction of these projects, would benefit from being similarly called out as allowed on Santini-Burton urban lots. The Conservancy requests that LTBMU add these activities to the list of Desired Conditions, since these urban lots provide a critical base for the implementation of EIP projects.

4. SANTINI-BURTON ACQUIRED LANDS / URBAN FOREST PARCELS MANAGEMENT AREA: The Santini-Burton/Urban Forest Parcels Management Area appears to now extend beyond lands encompassed by the previous plan's Urban Lots Management Area. Under the 1988 Forest Plan, the Urban Lots Management Area had been governed by Management Prescription #12, which specifically states that it does not apply to LTBMU acquired land that could be "consolidated with other national forest land for management, such as those within Blackwood Canyon, and would not likely be transferred to local governments for management". Instead, it appears that all Santini-Burton acquisitions, including large parcels in the upper parts of the watershed, will fall under the restrictive management guidance of the new Santini-Burton/Urban Forest Parcels Management Area in the proposed Forest Plan. Please confirm that this is the case.

   Larger Santini-Burton acquired parcels may benefit from additional management flexibility beyond the proposed Management Area provisions. For example, uses for the Management Area prohibit managed wildfire; developed and dispersed recreation sites (including trailhead parking); motorized trails, over-snow and cross country travel; and certain non-recreation special uses (communication sites and transportation-related). Standard and Guideline 138 in particular could be troubling to implement. The Conservancy suggests management of these parcels on a case-by-case basis to support recreation and resource management projects and activities where feasible.

   The proposed Santini-Burton/Urban Forest Parcels Management Area includes a management subset entitled "Urban Forest Conservation Area". LTBMU may wish to consider establishing Suitable Uses and Management Activities for this subset separate from those for other special land acquisitions in Blackwood and Ward Canyons, Incline Lakes, Ski Beach, etc., to benefit LTBMU's long-term management in both of these types of areas.

5. MULTI-MODAL TRANSIT / PARKING CAPACITY: The Conservancy appreciates the proposed Forest Plan's emphasis on promoting the use of transit and bike path systems for access to the National Forest, where appropriate.

   As a management agency with similar parking issues, the Conservancy would appreciate clarification regarding adoption of unmanaged sites and roadside parking. Specifically, we request expanded discussion of the point that unmanaged roadside parking that is not converted to bona fide parking (through hard coverage and/or best management practices) would be eliminated, and how LTBMU would manage the resulting parking activities.

The Conservancy has developed ways that allow us to manage parking for highly-valued areas that might be helpful to the LTBMU. For example, at some of our facilities, we close restrooms and cease garbage service but keep the parking area open until snow blocks access to the site. Thus, people may access the site longer season and are not compelled to park outside of a locked gate as occurs in the Pope-Baldwin area and the Big Meadow Trailhead. If sanitation is a concern, off-season portable restrooms could be considered.

In areas where overnight parking is prohibited within the LTBMU gate during the high season, such as within developed beaches where people may launch nonmotorized watercraft for kayak camping at Emerald Bay Campground, people must park outside the gate while they are on the water. The Conservancy recommends that LTBMU consider policies such as limited overnight parking when site-specific proposals for eliminating roadway parking are assessed in order to accommodate specific user needs.

Thank you for the opportunity to review the Forest Plan and EIS.

Sincerely,

Patrick Wright
Executive Director

BOARD OF COMMISSIONERS
1594 Esmeralda Avenue, Minden, Nevada 89423

Steve Mokrohisky
COUNTY MANAGER
775-782-9821

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August 29, 2012

DELIVERED VIA ELECTRONIC MAIL

Draft Land Management Plan
Lake Tahoe Basin Management Unit (LTBMU)
35 College Drive
South Lake Tahoe, CA 96150

RE: Draft Land Management Plan

Forest Supervisor Nancy Gibson:

Thank you for the opportunity to comment on the LTBMU's Draft Land Management Plan. As you know, the Lake Tahoe Basin is a recreation destination for many outdoor enthusiasts, and many residents of Lake Tahoe move to the area to enjoy the natural setting and outdoor recreation it provides. Destination tourists travel farther, stay longer, are more likely to utilize transportation systems, and spend more in the local economy. Economic needs assessments have indicated that public recreational amenities, access to the Lake Tahoe shoreline, and transportation systems are factors that would contribute to economic growth of the visitor economy. Current demands and existing uses demonstrate the need for expansion of recreation and transportation facilities to improve the quality of Lake Tahoe's outdoor destination recreation experience.

Recreation

Douglas County supports increased access and sustainable recreation along the shores of Lake Tahoe, with improved resort and service amenities. Outdated and deteriorating recreational development should be rebuilt and modernized. Structures should be replaced or reconstructed. To meet growing demand, the capacity of existing sites should be greater utilized and converted to year round use. New recreational service amenities should also be accommodated. Redevelopment of the built environment would improve public access and economic opportunity, but most importantly would result in significant environmental improvements, including Lake Tahoe water quality. Many of the LTBMU properties have direct access to Lake Tahoe, yet have implemented little or no BMPs and other environmental improvements that could positively impact Lake clarity.

Concessions

Douglas County strongly supports the LTBMU's partnership with concessionaires to improving the quality of services. Douglas County understands that the current trend of declining budgets makes it difficult for the LTBMU to maintain aging facilities, and that there is no funding for new construction. Public-private partnerships through concessions will enhance the visitor experience by

Mailing Address: P.O. Box 218, Minden, NV 89423

providing for the investment of private capital to maintain, modernize, improve and manage commercial and recreational services in the LTBMU. Similarly, Douglas County itself would like to explore various opportunities to partner with the LTBMU to enhance the beneficial use of the LTBMU's recreation sites.

Washoe Tribe of Nevada and California

The Washoe Tribe of Nevada and California is an important partner of Douglas County. As the original inhabitants, Lake Tahoe is central to the Washoe People. Accordingly, Douglas County supports reestablishing a Washoe presence at Lake Tahoe, and maintaining the Washoe culture, traditions, livelihood, and language.

Consolidation

Douglas County has enthusiastically supported the acquisition of tens of thousands of acres of private lands by the United States Forest Service to protect the environment and enhance the recreational opportunities at Lake Tahoe. Some of these lands have been large, majestic, lakefront properties in our county, forever taking many tens of millions of dollars of private holdings off the property tax rolls. We understand that these acquisitions are important for the overall betterment of the many attributes that we all love at Lake Tahoe. In certain instances, however, the LTBMU's acquisition of urban subdivision lots has only served to increase the LTBMU's management obligations, and has significantly increased management costs.

To date, the LTBMU has acquired more than 3,500 urban subdivision lots. Adequate management of these urban subdivision lots is a top priority for the LTBMU. Douglas County supports greatly enhanced federal, state, local, and private partnerships to improve the environment, decrease erosion, reduce costs, and allow each agency to focus on activities that fit within its mission. To the extent possible, the LTBMU should continue to consolidate ownership of urban subdivision lots. Approximately 15 years ago, the Forest Service at Lake Tahoe deeded to Douglas County a handful of urban parcels. The time has come to reevaluate public land tenure in the Lake Tahoe Basin.

To ensure adequate management of urban subdivision lots, the LTBMU should: (1) consolidate with lands owned by the States of Nevada and California; (2) more frequently utilize the LTBMU's special authority under the Santini/Burton Act to transfer lands to local governments; and (3) expressly authorize consolidation with private landowners when there is a net public benefit. Consolidation in the above manner would improve management efficiency and recreational opportunities.

Again, thank you for providing the opportunity for the public to comment on the LTBMU Draft Land Management Plan. Douglas County appreciates the ongoing dialogue with the LTBMU on important issues that affect our local environment, economy and residents. We look forward to continuing to work with the LTBMU on these issues.

Sincerely,

Stephen Mokrohisky
County Manager

2

COUNTY OF EL DORADO

330 Fair Lane
Placerville, CA 95667
(530) 621-5390
(530) 622-3645 Fax

TERRI DALY
Acting Clerk of the Board

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August 21, 2012

Nancy Gibson
Forest Supervisor
Lake Tahoe Basin Management Unit
35 College Drive
South Lake Tahoe, CA 95160

RECEIVED AUG 27 2012

RE: Recommendations and Input on the Draft Lake Tahoe Basin Management Unit Plan

Dear Ms. Gibson:

The Board of Supervisors for the County of El Dorado has carefully considered factors affecting the county and its constituencies contained within the Draft Land Forest Management Plan (Forest Plan), including, reductions in recreational opportunities and catastrophic fire danger.

We understand that this forest plan may be used as a model for other forest areas and regard our comments as critically important input on behalf of the broad spectrum of user interests. We also regard the 1982 Planning Rule as a valuable reference as addressed by the Forest Range Land Renewable Resources Planning Act (1972) regardless if compliance is not required as stated in your draft forest plan.

The Board of Supervisors recommends combining aspects of alternatives B and C; and, does not support alternatives A and D.

Alternative B recommendations and agreements:

- Reduce the management areas from 21 to 4;
- Address safety concerns of communities by focusing on fuels treatments in Wildland Urban Interface areas;
- Expedite contracts for the sale of dead and dying trees after wildfire to generate revenue;
- Encourage better management of old growth condition through fuels treatments;
- Trees greater than 30" DBH may be removed under certain conditions described within the draft plan;
- Respond to major issue, management concerns and resource opportunities;
- Proactive approach to prevention of invasive species (ie. Quagga Mussel, etc.);
- Fuel treatments specifically intended to promote resilience to fire and insect outbreaks;
- Jeffrey Pine reduction in mid seral closed canopy stands to promote succession to late seral;
- Goals stated in option B of open access for OHV and OSV use is preferable.

August 21, 2012
Draft Land Forest Management Plan Input
Page 2

Alternative C recommendations and agreements:

- Reduction in stand densities;
- Wildland fire management for resource management would be allowed in all Fire Management Units;
- Overnight accommodation unit expansion (campsites and cabins);
- Any facility removed in a Stream Environment Zone would be replaced by facilities installed elsewhere;
- Encourage development of multi-modal transportation alternatives before consideration of expansion of day use parking (added parking fee structure is not desired);
- Future expansion of recreation infrastructure up to 15%;
- Enhancement of recreation access increasing vehicular access to forest areas while maintaining OHV and OSV use as designated in alternative B.

In addition, we would suggest including in the Forest Plan recognition of the Rubicon Trail based on the National Register of Historic Places Evaluation, done as part of the NEPA process completed pursuant to the recent granting of an easement signed on August 14, 2012, by the Eldorado National Forest.

We appreciate this opportunity to represent the public for this input period. We hope that you will pay serious and thoughtful consideration to our recommendations.

Sincerely,

John R. Knight, Chair
Board of Supervisors
County of El Dorado

RECEIVED
AUG 30 2012

August 30, 2012

Draft Land Management Plan
U.S. Forest Service - Lake Tahoe Basin Management Unit
35 College Drive
South Lake Tahoe, CA 96150

Re: Policy and Technical Comments
Draft Revised Land Management Plan (June 2012)
and Draft Environmental Impact Statement (DEIS)

Attention: Mr. Randy Moore, Regional Forester
Ms. Nancy Gibson, LTBMU Forest Supervisor
Mr. Jeff Marsolais, Deputy Forest Supervisor

Thank you for the opportunity to submit comments on the Draft Revised Land Management Plan and associated DEIS. We appreciate the significant amount of work involved in preparing such an important document. We understand that its purpose is to provide a policy and technical framework intended to guide planning, management, programs, and on-the-ground projects for the next 15 years, with an eye toward longer term desired conditions and to analyze the consequences of four plan alternatives.

The primary mission of our districts is to provide the highest level of life safety, fire prevention, suppression, rescue, and emergency medical services to the residents, property owners, and visitors we serve. We are proud to be 24/7 all risk service providers. **Consistent with our collective core values and mission, we have focused our comments and recommendations on the Forest Vegetation, Fuels and Fire Management sections of the DEIS and Plan.** We have divided our comments into two sections – Policy and Technical. We have identified concerns and recommended solutions to address our concerns.

Policy Perspectives
The manner in which the USDA Forest Service LTBMU manages the federally owned forest lands around Lake Tahoe impacts all fire agencies in the region. These include financial impacts. All agencies are grappling with constrained resources. Yet, there are land, fire and fuels management proposals within the four DEIS alternatives that, if implemented, could negatively impact lives and property and public safety. Our technical comments identify these impacts and concerns. In summary, we favor a modified Alternative C approach to fuels management and prioritization of actions in the Wildland Urban Interface (WUI), particularly within the defense zone. We strongly believe that fire behavior modification should be the primary objective to protect life safety and property for treatments in the WUI. We also believe that any action such as designating wilderness near communities that will increase fire suppression and structure protection costs must include a provision for the Forest Service to pay those costs. We believe fire and fuels management within the WUI is compatible with vegetation and habitat management, however, these must be secondary outcomes within the WUI.

The Lake Tahoe Basin Fire Chiefs support the responsible use of prescribed fire to maintain fuels reduction projects and to restore forest health. However we must caution the Forest Service against adopting any plan that causes the overreliance on prescribed fire. The analysis in the DEIS clearly shows that there are a limited number of burn days where prescribed fire can be used in the Tahoe Basin. Likely there are not enough burn days to maintain all of the fuels reduction projects that are being implemented in the 10-Year Strategy. Therefore plans should be developed to use a combination of prescribed fire and forest thinning to maintain these important projects. We also caution the Forest Service from using prescribed fire as silvicultural system in the WUI. We are unaware of any National Forest in the Sierra Nevada that is effectively using prescribed fire on the initial entry into a mixed conifer forest.

Thank you again for the opportunity to provide comments and make recommendations on the Draft Revised Land Management Plan and DEIS. We look forward to continuing our partnership with the USFS-LTBMU as we jointly work to protect lives, property, and public safety while collaborating to ensure a healthier, more resilient forest and ecosystem throughout the Tahoe Basin.

Sincerely,

Chief Benjamin P. Sharit
Tahoe Douglas Fire Protection District

Chief John B. Pang
Meeks Bay Fire Protection District

Chief Gareth S. Harris
Lake Valley Fire Protection District

Chief Michael D. Brown
North Lake Tahoe Fire Protection District

Chief Peter N. Poe
North Tahoe Fire Protection District

Chief Garry Gerren
Fallen Leaf Lake Fire Department

Technical
Volume I - Draft Environmental Impact Statement

Chapter 2, Alternatives, Page 2-3

Issue 1: On page 2-3, the DEIS makes the statement that *"Fire suppression practices would be the same for all alternatives."* This statement implies that the creation of additional acres of wilderness would not affect fire suppression tactics and practices.

Why this is an issue: This statement could cause people to believe that there would be no effect on the ability of emergency response crews to suppress wildfire even if an alternative includes additional wilderness designations. This is not accurate. Fire suppression in wilderness areas is typically limited to the use of hand tools and aircraft. Even chainsaws are usually forbidden or regulated. These constraints greatly limit the ability of LTBMU or other crews to conduct suppression actions in designated wilderness areas. In summary, wilderness designation absolutely limits the ability of suppression crews to engage a fire.

Solution: The DEIS should clearly describe that proposals to increase wilderness designation will have a significant effect on fire suppression tactics and fuels reduction and include an analysis of those effects. The DEIS must quantify the expected economic impacts to local fire agencies who are responsible for structure protection costs. The DEIS must also analyze the potential ramifications to communities near designated wilderness. The public must be clearly informed that wilderness will negatively affect fire suppression.

Issue 2: On page 2-4, the statement is made: *"Current designations of Inventoried Roadless Areas (IRA) would not be reduced or eliminated unless wilderness designation of an IRA, or portion of an IRA, is proposed and adopted by Congress."*

Why this is an issue: Currently, there are mapped IRAs in the Basin that are not roadless. IRA designation has a significant impact on the type and adequacy of fuels reduction treatments implemented in such areas. A Land Management Plan based on inaccurate IRA mapping will be flawed and will inappropriately constrain vital fuels treatments.

Solution: All Basin IRAs should be accurately inventoried and their boundaries adjusted based on surveys. Where an IRA and Wildland Urban Interface (WUI) overlap, effective fuels treatment must be the priority. IRA boundaries should be adjusted to the WUI boundary as it is unlikely that life safety will be the primary priority for vegetation management within an IRA. All fuels reduction and vegetation management projects within a WUI section of an IRA must include a design criteria of 4 foot flame lengths during the 90th percentile fire weather.

Chapter 3, Affected Environment and Environmental Consequences

Issue 3: Page 3-197, statement: *"Wildfire frequency, size, total annual burned area, and - in some forest types - fire severity, are all trending upward across the western U.S. It is believed that climate warming in conjunction with the increasing fuel loads are contributing to these trends (Miller et al. 2008, Flannigan et al, 2000)."*

Why this is an issue: The implication of this statement is that communities adjacent to USFS lands are increasingly at risk. However in the DEIS we do not see a consistent response to this increasing hazard.

Solution: The solution to this issue should be a set of overriding principles common to all alternatives. We recommend the following:

1) Each urban area and major roads are bounded by defense zones and threat zones. The defense zone is a minimum of 0.25 miles from communities and the threat zone extends 1.25 miles beyond the defense zone. All vegetation management and fuels reduction projects

within these zones must be designed to reduce the likelihood of catastrophic fire in the community and achieve specified design criteria for fuels reduction projects.

2) Fuels reduction and vegetation management projects within the defense zone must, at a minimum, be designed to reduce flame lengths to four feet under 90th percentile fire weather. This is consistent with fuels reduction analysis conducted for the *South Shore Fuel Reduction and Healthy Forest Restoration Project.* Other values such as recreation and wildlife can be used to influence treatments within the threat zone, however, the goal of designing projects to reduce the risk of catastrophic fire within the WUI should always be achieved.

3) Fuels reduction projects in the defense zone should be prioritized over projects in the threat zone. The Tahoe Basin Fire Chiefs recognize that the Forest Service must work in areas where NEPA is complete. However, in these areas work should proceed in the defense zone first. This prioritization recognizes that funding is uncertain and that protecting communities should be the first priority.

Issue 4: Page 3-200. The DEIS describes two "indicators" for Fire and Fuels. These are modification of wildfire behavior and reducing fire return interval departure (FRID). Under Indicator Descriptions (1), is the statement: *"Some treatments may not be designed with fire behavior modification as a primary objective but those included here are expected to have similar effects to a fuels treatment."*

Why this is an issue: Not all past vegetation management projects (even within the WUI), have adequately reduced forest fuels to reduce the risk of crown fire or flame lengths to acceptable levels. These inadequate treatments are particularly common on urban lots purchased under the Santini-Burton Act.

Solution: The Forest Plan must prescribe that all forest fuel reduction treatments and vegetation management projects within the WUI must have modification of wildland fire behavior as the primary objective. Fire and fuels management indicators in the WUI should be based on the National Wildfire Coordinating Group's Fireline Handbook, Appendix A, Fire Suppression Interpretations from Flame Length. Appendix A states that even at 4 to 8 foot flame lengths, fires are "too intense for direct attack on the head with hand tools. Hand lines cannot be relied upon to hold the fire. Bulldozers, engines, and retardant drops can be effective". The reduction of FRID should only be considered a tangential goal that will be achieved as a means of reducing wildland fire behavior and flame lengths below 4 feet during 90th percentile fire weather.

Issue 5: Page 3-201. Paragraph 2 on page 3-201 describes the second indicator for fire and fuels. The first line in paragraph 2 states that reducing FRID is a *"critical piece of forest restoration and fuels reduction strategy of the forest plans revision alternatives."*

Why this is an issue: The Basin Chiefs understand that reintroducing fire into the ecosystem has wide-ranging benefits. These include reducing surface fuels, thinning forests of weak and diseased trees, and increasing time between maintenance treatments. However, reducing FRID is not an indicator of the adequacy of fuels reduction projects and is not an end in itself within the WUI. As examples, the LTBMU has tried to implement projects with a prescription of hand thinning with lop and scatter followed by broadcast burning at Round Hill and east of the Skyland community. The hand thinning with lop and scatter was completed in 2009. However as of this writing, all of the slash and tree boles are still present at both project sites. These two areas were considered demonstrations of the efficacy of a prescription designed to reduce

FRID. However, both projects have proven that variable weather conditions along with implementation capacity constraints in the Tahoe Basin can prevent the guaranteed completion of these types of projects within a reasonable timeframe.

Solution: Reducing FRID is a valuable secondary goal for fuels reduction projects within the WUI. However, within the WUI, the Forest Plan should plainly prioritize the modification of wildfire behavior and flame length over reducing FRID. With this priority, the hand thinning on Round Mound and near Skyland would have been followed by pile burning. The piles would have likely have been burned when other nearby units were burned. These projects clearly demonstrate that prescriptions with the goal of reducing FRID cannot be predictably implemented in the Lake Tahoe Basin.

Issue 6: Page 3-203. Under the Overview of Affected Environment section, there is a discussion of the LTBMU's Comprehensive Evaluation Report 2006 (CER). It appears that this report is being used within the DEIS to provide direction for the Fire and Fuels section and updated Forest Plan. There are, however, several sections of the CER that are not acceptable to the Tahoe Basin Fire Chiefs. These are as follows:

- **DEIS statement:** Fire and fuels management needs to have more integration with vegetation and habitat management, and fire ecology.

- **Our comment:** Fire and fuels management within the WUI should prioritize life safety and property protection. Fire and fuels management is compatible with vegetation and habitat management, however, these are secondary outcomes within the WUI.

- **DEIS statement:** Focus should be on historic fire regimes, and forest vegetation and structure.

- **Our comment:** Focus within the WUI should be on modifying wildland fire behavior to protect lives and property. Ancillary benefits may include restoring forest composition or structure, but the WUI focus must be on the protection of life and property.

Why this is an issue: Our concern is that mixed goals may cause substandard treatments within the WUI. In our professional judgment, the initial treatments of many forest stands, particularly urban lots, are simply not adequate. The Fire Districts have repeatedly requested that treatment prescriptions be updated to include a goal of modifying fuels so that a wildland fire would have flame lengths of less than 4 feet under 90th percentile weather. Two examples of inadequate treatment immediately adjacent to communities are at Cave Rock and Kings Beach. Forest Service personnel have acknowledged that the treatments implemented would not likely reduce flame lengths to acceptable levels.

Solution: The Basin Chiefs recognize that fuels reduction projects can and frequently do restore forest structure and composition to historic reference conditions. However, in the WUI, which includes all urban lots managed the USFS-LTBMU, this must be a tangential benefit that is secondary to the goal of reducing flame length to protect life and property.

Issue 7: Page 3-206. The subhead at the top of this page asks *"Where are the potential problem areas for fire behavior?"* The paragraph below describes how Flammap was used to map potential fire behavior under 90th percentile weather. It goes on to state that *"Areas in red are a major concern since these areas may experience extreme fire behavior (active crown fire) threatening values at risk."*

Why this is an issue: The USFS fire behavior analysis fails to account for the presence of homes and structures adjacent to National Forest lands. Crown fire can of course have significant effects on forest resources, but even 4 to 8 foot flame lengths can defy direct suppression tactics.

Solution: The Forest Plan must acknowledge that communities are the primary value at-risk to wildfire on National Forest lands within the Tahoe Basin. Figure 3-33 (page 3-207) is a valuable tool for understanding potential fire behavior, however, this tool should not be used to prioritize treatments within the WUI or for assessing potential fire risk. All WUI communities are at-risk. Site-specific information should be used to design and prioritize treatments. Models can be useful, but cannot replace local knowledge and the experience of fire suppression personnel.

Issue 8: Page 3-214. This page contains a table (Figure 3-36) showing the *Average Number of Burn Days per Month.* The analysis for this table does not include snow depth nor does it include any consideration of red-flag days within a reasonable time period of the burn day.

Why this is an issue: Figure 3-36 shows there are very few burn days in the Tahoe Basin and that the months with the most burn days are also those with the deepest snowpack. There are almost no wildfires in the Basin during the mid-winter months when there are burn days. Therefore, it is highly unlikely that managed wildfire will ever be a significant tool for reducing forest fuels. Additionally, the Forest Plan should acknowledge that managed wildfire is generally used over multiple days. Figure 3-36 does not identify the number of adequate operational periods where the use of managed wildfire is plausible. Finally, the analysis does not include any consideration of red flag or near red flag conditions occurring near the designated burn day. This would suggest that managed wildfire would be used as one day event with the potential for red-flag condition occurring the very next day. It is highly unlikely that managed wildfire will be a valuable tool for forest treatments in the Tahoe Basin once snow pack and red-flag days are considered in the analysis.

Solution: The analysis for this table should be updated to include average snow depth. This information should then be used to inform the number of operational periods during which managed wildfire could be a tool. This table should also be recognized as a reason why managed wildfire is not a tool to reduce fuels in the WUI. Fuels reduction in the WUI must be scheduled based on need, not the vagaries of weather, snow pack, and the regulatory permission that must accompany managed wildfire use.

Issue 9: Page 3-218. Figure 3-40 incorrectly assumes that managed wildfire can be used as a tool during snow-free months with no consideration of the number of consecutive burn days that would be necessary to achieve the results shown in the table. Additionally, the analysis assumes that managed wildfire will be used in the WUI.

Why this is an issue: Figure 3-40 implies that managed wildfire could become an important tool to reducing forest fuels in the Lake Tahoe Basin. We view this as highly unlikely. As discussed above, there are very few days where fuel moistures and prescribed fire weather conditions would enable the use of managed wildfire in the WUI or even in the general forest of the Tahoe Basin. This improper reliance upon managed wildfire would result in the delay of important fuel reduction projects in the WUI. Projects in the WUI must be implemented when expected flame lengths exceed design criteria, not when all of the conditions coincide to allow the use of managed wildfire.

Solution: The Forest Plan should acknowledge that managed wildfire is not likely to be a reliable tool for reducing forest fuels in the WUI. Projects in the WUI must be implemented when predicted flame lengths exceed design criteria. Clearly stated, the Basin Chiefs do not support the use of managed wildfire in the WUI.

Issue 10: Page 3-219. Under the heading "Environmental Consequences" is the statement: *"Initial action on human-caused wildfire will continue to suppress the fire at the lowest cost with the fewest negative consequences with respect to firefighter and public safety."*

Why this is an issue: This statement does not distinguish between the WUI and the general forest. In the WUI, suppression should remain the goal and priority for human and naturally occurring wildfire. Managed wildfire in the WUI presents unacceptable risks.

Solution: The Forest Plan should directly acknowledge that it is unlikely that managed wildfire will ever be a tool within the WUI and that the initial action on all wildland fire within the WUI will be suppression.

Issue 11: Page 3-220. This page includes a list of indicators for WUI thinning and fuels reduction.

Why this is an issue: The Tahoe Basin Fire Chiefs are concerned that the Forest Plan does not clearly state that modification of fire behavior is always the primary objective for forest management in the WUI. We understand there may be secondary or tangential benefits. However, if the modification of fire behavior is not the primary goal, then the Forest Plan allows for the prioritization of other values above life safety and protection property. This is not acceptable.

Solution: The Forest Plan must clearly state that modification of fire behavior is the primary and superior goal for vegetation management within the WUI for the life of the Plan.

Issue 12: Table 3-29 on page 3-221 shows a comparison table of treatments under the different Plan alternatives (*Acre contributions to effects on indicators by the various vegetation and fuels treatments*). The table identifies target goals for the four alternatives.

Why this is an issue: Below, the Basin Chiefs use this table to provide comments and ask questions on Plan alternatives.

Solution - Comments/Suggestions: The Basin Chiefs are encouraged that the Forest Plan acknowledges the importance of completing the *Lake Tahoe Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Plan.* Updates to the current 10-Year Year Plan are contemplated in the process of updating Community Wildfire Protection Plans (CWPPs). The Forest Plan should clearly acknowledge that the current "10-Year" Strategy and Plan will be extended.

1. Within the WUI, fire behavior modification must be the primary goal of forest management.

2. Economics must be an important consideration as to whether a specified set of treatment types can be implemented. Hand thinning is generally more expensive than mechanical techniques. Question: Is it economically feasible to get the necessary treatments completed in the WUI with an increasing emphasis on more expensive treatment methods?

3. Table 3-29 appears to show that under the Modification of Fire Behavior indicator, certain treatments will prioritize certain outcomes. This table incorrectly shows that there is a basic incompatibility between (for example) "structure restoration" and "modification of fire behavior." Because of Table 3-29, it is unclear whether the LTBMU intends to prioritize forest stand resiliency over structure restoration on 15,000 acres under Alternative C. Clearly, this is a false choice. Structure restoration will generally lead to increased resiliency within the bounds of acceptable flame lengths. The Basin Chiefs recommend that Table 3-29 be removed entirely or that the underlying analysis clearly state that the "Activities" listed are sub-goals to the goal of modifying fire behavior.

4. Table 3-29 and the surrounding pages indicate that mechanical systems would be used on more acres in Alternative C than in the other alternatives and this leads to the increase in structure restoration, type conversion, and forest stand resiliency. Prescriptions for fuels reduction treatments should include targets for basal area, crown bulk density, surface fuel loading and crown base height. A silvicultural system should be chosen based on its suitability for the site and forest stand prescription goals. It appears throughout the DEIS that mechanical and hand thinning are competing silvicultural systems. **This is a false choice**. As the Forest Service's own studies have shown, mechanical systems can be superior to hand thinning and pile burning, even only considering environmental impact. In many cases, the forest prescription goals for thinning, structure restoration, type conversion and resiliency can be obtained in a single entry using mechanical systems where multiple entries must be made to achieve the same goals with hand thinning. Thus, there can be a reduction in environmental impact with mechanical thinning systems. Therefore, the Basin Chiefs recommend that the acreage goals shown in Table 3-29 be recalculated without an arbitrary distinction between treatment methods. We suggest that the LTBMU plan to use mechanical systems where they are appropriate and hand thinning where necessary. The DEIS should also analyze the total costs of maintaining fuels reduction treatments within the WUI where the durability of mechanical treatments results in lower overall maintenance costs.

5. In its fire and fuels section, the Forest Plan should not include any arbitrary diameter limits, however, given the constraints imposed on the Forest Service, we support Alternative C as the preferred approach for this topic. Currently in the Basin, there are areas of insect infestation, disease, and poor general forest health that would favor the retention of smaller trees over larger trees. If insect and disease mortality are expected to increase surface fuel loading rates beyond acceptable limits, then the best treatment may be to implement an over-story removal prescription. The Tahoe Basin Fire Chiefs believe that the professional foresters at the LTMBU should be given the latitude to prescribe the treatment that will best protect lives and property over the long term.

6. Table 3-29 [and the analysis under fire and fuels] does not include a section on fuels reduction project maintenance or costs. This is a fundamental flaw in the Forest Plan. Initial forest thinning projects in the WUI must be followed up with maintenance treatments in a predictable pattern based on expected flame length in the treatment unit. In general, maintenance should follow a combined Area/Volume Method of Forest Regulation. Tools such as Forest Vegetation Simulator are useful in informing a likely maintenance rotation. Slope, aspect, elevation, soil productivity and vegetation type will be the important variables that will influence the maintenance rotations. The result of an analysis of fire behavior is an initial entry schedule and maintenance schedule for each acre within the WUI. This schedule can then be used by the LTBMU to fund and maintain important fuels reduction projects designed to protect life and property. If in addition to protecting life and property, secondary

goals can be achieved, such as forest type conversion or structure restoration, then the prescription for forest stands should include provisions to obtain the secondary goals as well.

In general, the Basin Chiefs support Alternative C for Indicator 1, Modification of Fire Behavior. However, we are very concerned that the analysis underlying the Fires and Fuels section is incomplete because it presents false choices between treatment methods, includes wildland fire management in the WUI, does not include maintenance treatments, and does not include an analysis of the funding necessary to maintain fuels reduction projects within the WUI.

Issue 13: Page 3-221. This page presents goals for prescribed fire and managed wildfire that exceed any historical production by the LTBMU and may exceed or will likely exceed the capacity of the LTBMU to implement. Additionally, there is a proposal in Alternative B and C to use managed wildfire within the WUI during peak fire season.

Why this is an issue: The prescribed fire goals in the Forest Plan are counted toward the achievement of maintenance treatments within the WUI. To date, the LTBMU will not likely have the capacity to implement a burn program of the scale envisioned in the DEIS. In fact, the LTBMU has reduced its fuels crew personnel by 50 percent over the past several years. Further, the managed wildfire use section on page 3-221 includes the use of managed wildfire within the WUI during peak fire season. Opportunities to utilize managed wildfire in the WUI were grossly over-exaggerated in FSPro by including months with extensive snow pack and during peak fire season including red flag days. Further we are concerned that there is a great overreliance on the use of prescribed fire particularly in Alternative D for initial thinning of forest stands.

Solution: The Basin Chiefs support the LTBMU's development of a robust prescribed fire program that will be used to maintain fuels reduction projects within the WUI. The Forest Plan should include an analysis of available and necessary capacity to achieve the prescribed fire goals enumerated in the Forest Plan. We also encourage the LTBMU to evaluate using local fire crews to complete the prescribed fire projects on USFS lands based on the proven track record of local crews to achieve prescribed burning objectives.

As stated above, the Tahoe Basin Fire Chiefs cannot support a Forest Plan that calls for the use of managed wildfire within the WUI, particularly during peak fire season. We suggest this option be removed from the Plan entirely.

Issue 14: Page 3-223. The Analytical Conclusions section of the fire and fuels alternatives analysis includes statements that the Basin Chiefs fully support, such as *"Each fuels reduction project in the WUI will have fire behavior modification as the primary objective."* However, in our judgement, this statement is not adequately supported in the alternatives analysis.

Why this is an issue/Solution: We believe the following principles should apply to the Fire and Fuels section:

1. The WUI in the Lake Tahoe Basin is comprised of two zones, defense and threat, and those zones will remain throughout the life of the Plan.

2. Forest fuels reductions within the WUI should always have fire behavior modification as the primary goal and that should remain the goal for subsequent treatments for the life of the Plan.

3. The foresters at the LTBMU should not be limited on the prescription they can use based on constraints such as diameter limits or arbitrary limits on the use of mechanical systems.

4. Silvicultural systems should not be arbitrarily chosen. Within the WUI, the system that leads to the most cost effective and durable fuels reduction treatment that meets design criteria should always be chosen.

5. The Forest Plan should include an economic analysis that considers the costs of initial treatments and maintenance treatments within the WUI. This analysis alone will likely lead to the conclusion that mechanical systems are necessary to complete initial entries and maintain those treatments.

6. Managed wildfire is unlikely to ever become a safe and reliable tool for managing fuels in the WUI. This conclusion is based on the limited number of snow-free burn days and the number of red flag days when the forests are snow-free.

The Tahoe Basin Fire Chiefs support the use of prescribed fire to maintain fuels reduction projects in the WUI. Prescribed fire can then be used to reduce FRID. However, we must reject any alternative that includes the use of managed fire in the WUI simply to reduce FRID. Page 3-225 includes an analysis with the statement:

> *"Further, two to four consecutive day periods meeting these criteria occur very infrequently (average of less than twice per year in each of these three months) and longer consecutive periods are even rarer. Based on these constraints and all the inherent uncertainties, projecting acres using prescribed fire to reduce FRID is a difficult exercise."*

This basic analysis is correct, however, we believe the conclusion is incorrect. We recommend the statement be revised to read: *"Based on these constraints and all the inherent uncertainties, using managed wildfire to reduce FRID is unlikely. It is improbable that managed fire will ever be an important tool within the WUI."*

Issue 15. Page 3-229. The final conclusion paragraph to the Fire and Fuels section states: *"Overall, Alternative C provides the best strategy for achieving desired conditions. Although Alternative D would achieve the desired conditions if all conditions are optimal, the restrictions from using all tools when conditions are not optimal may tie the hands of managers during times when conditions are not suitable for the safe use of fire."*

Why this is an issue. This conclusion to the Fire and Fuels section underscores that the best strategy for achieving Fire and Fuels desired conditions was rejected by LTBMU in identifying Alternative B as the Unit's Preferred Alternative and Draft Plan. This conclusion with respect to Fire and Fuels is not acceptable.

Solution: We urge the Forest Service decision-makers involved in finalizing the Revised Forest Plan to take the following two steps: 1) Incorporate the guidance we recommended above (points 1 through 6); and 2) modify the Fire and Fuels section of Alternative C accordingly, and replace the Fire and Fuels section of Alternative B with the revised Fire and Fuels section currently in Alternative C.

Issue 16: Page 3-414. This page begins with a discussion of the impacts of hand and mechanical thinning to soils. The last paragraph on page 3-415 includes the statement:

"Alternative C might be the most favorable for the soil resource due to the longer recovery time between mechanized treatments; porosity losses that require long term recovery would be less frequent. Although surface disturbance would be slightly greater because more trees would be removed at one time, surface disturbances recover relatively quickly."

Why this is an issue: The above analysis is consistent with our experience with mechanical fuels reduction on state and private property. And yet, USFS-LTMBU selected the Fire and Fuels approach in Alternative B over Alternative C based on environmental impacts.

Solution: As stated above, the Forest Plan should include the best strategy for protecting lives and property within the WUI. The Forest Plan should not include present hand thinning and mechanical thinning systems as competing systems where there is no clear scientific basis for the distinction. If soil impacts cannot distinguish between hand and mechanical thinning, then the treatment method that achieves the best results should be chosen.

Issue 17: Page 3-510. This is the Analytical Conclusions section of the designation of new wilderness areas. This analysis ignores the impact of wilderness designation, or even wilderness study, on search and rescue, fuels reduction and fire suppression.

Why this is an issue. Local fire districts, in collaboration with county search and rescue teams, provide the majority of search and rescue resources in the Lake Tahoe Basin. This is an important part of our commitment to life safety. Wilderness designation has significant impacts on how search and rescue operations are conducted. In fact, any wilderness designation will cause local search and rescue teams to alter their current operational procedures. At a minimum, wilderness designation changes when helicopters, snowmobiles, or other mechanical resources may be used for search and rescue and how they are deployed. Any analysis of wilderness designation that does not include a section of the effects on search and rescue is inadequate and potentially misleading to the public.

Wilderness designation is also proposed, literally, within feet of communities, particularly in the Lake Valley Fire Protection District and the Tahoe Douglas Fire Protection District. However, the DEIS provides no analysis of the impact of wilderness designation on fire suppression or fuels management. At a minimum, the DEIS must include a section on the type of suppression actions that can take place in a designated wilderness, the types of suppression actions that are typically use in the region, and a quantification of the reduction in effectiveness between what is typically used and what may be used in wilderness. Without this analysis, the DEIS is incomplete and potentially misleading to the public.

Finally, there is no analysis of wilderness designation on the ability of the LTBMU to complete fuels reduction projects and maintain those projects within the WUI that may be designated as wilderness. The Fire and Fuels section of the DEIS must be updated to include an analysis that incorporates a quantification of the increase in fire hazard in wildfire in communities near newly designated wilderness areas. The public must be informed of the increased risk of catastrophic wildfire in, or coming out of, newly designated wilderness that is much closer to homes and Tahoe's urban environment.

The Basin Chiefs do not support the designation of any additional wilderness areas within the Lake Tahoe Basin. This is based on our first-hand knowledge of the complexities of search and rescue in a mountain environment, including IRAs and roadless areas. We are very concerned that there is a consideration of new wilderness areas where the Forest Service's own studies have identified an extreme risk of catastrophic wildfire. We are also very concerned that there is

a consideration of new wilderness with no analysis of the effects on search and rescue, fire suppression, and fuels management.

Solution: These inadequacies in the DEIS must be fully addressed if the document is to properly and legally guide the adoption of a Forest Plan Revision.

Issue 18: DEIS: Map 4. Map 4 is a map of the WUI that includes a defense zone that is generally a 0.25 mile buffer around communities, with a threat zone extending 1.25 miles beyond the defense zone.

Why this is an issue. The definition of the WUI has been revised in several national documents published by federal, state, and local fire entities. One common element among the differing definitions is the need to develop a WUI definition in consultation with all interested parties, including local governments and fire districts, state governments, and appropriate federal agencies. This process is not yet complete for the Lake Tahoe Basin. Map 4 has not been adopted by the Tahoe Basin Fire Chiefs. This is critically important because areas that might not meet the technical definition of a defense zone should in fact be included, based on the number of people present in the region during peak fire season. Just two examples of this are Emerald Bay and Van Sickle Bi-State Park.

Solution: Map 4 should be brought back to the Tahoe Basin Fire Chiefs for final review, boundary adjustments and final adoption. The final version of Map 4, with other review and approvals as appropriate, should be included in the final Forest Plan Revision.

Skip Canfield

From: Rebecca Palmer
Sent: Thursday, July 26, 2012 8:42 AM
To: Skip Canfield
Subject: RE: Nevada State Clearinghouse Notice E2012-245

The SHPO supports this document as written.

Rebecca Lynn Palmer
Deputy Historic Preservation Officer
901 South Stewart Street, Suite 5004
Carson City NV 89701
Phone (775) 684-3443
Fax (775) 684-3442

Please note, my email is rlpalmer@shpo.nv.gov

From: scanfield@lands.nv.gov [mailto:scanfield@lands.nv.gov]
Sent: Monday, June 04, 2012 8:59 AM
To: Alan Jenne; Alisanne Maffei; clytle@lincolnnv.com; brian.hunsaker@us.army.mil; cstevenson@ndow.org; Brad Hardenbrook; dmouat@dri.edu; Edward Foster; ed.rybold@navy.mil; Jennifer Crandell; James Morefield; Jennifer Newmark; Jennifer Scanland; kirk.bausman@us.army.mil; cohnl@nv.doe.gov; Mark Freese; McClain Peterson; mstewart@lcb.state.nv.us; deborah.macneill@nellis.af.mil; escomm2@citlink.net; Octavious.Hill@nellis.af.mil; Rebecca Palmer; Robert K. Martinez; Russ Land; Sandy Quilici; Sherry Rupert; Steven Siegel; sscholley@lcb.state.nv.us; Tod.oppenborn@nellis.af.mil; William.Cadwallader@nellis.af.mil; zip.upham@navy.mil; Alex Lanza; Dave Marlow; Michael Visher; Kevin J. Hill; dziegler@lcb.state.nv.us; Richard A. Wiggins; Robert Gregg; Shimi.Mathew@nellis.af.mil; Skip Canfield; whenderson@nvnaco.org; Tim Rubald; Alan Coyner; Lowell Price; Mike Dondero; Pete Anderson; Pete Konesky; Rich Harvey; djohnston@dps.state.nv.us; gderks@dps.state.nv.us; John Walker; tcompton@dot.state.nv.us; tmueller@dot.state.nv.us; Cliff Lawson; Karen Beckley
Subject: Nevada State Clearinghouse Notice E2012-245

NEVADA STATE CLEARINGHOUSE
Department of Conservation and Natural Resources, Division of State Lands
901 S. Stewart St., Ste. 5003, Carson City, Nevada 89701-5246
(775) 684-2723 Fax (775) 684-2721

TRANSMISSION DATE: 06/04/2012

U.S. Forest Service

Nevada State Clearinghouse Notice E2012-245

Project: Draft Revised Land and Resource Management Plan- Lake Tahoe Basin Management Unit

Follow the link below to find information concerning the above-mentioned project
for your review and comment.
E2012-245 -

1

http://www.fs.usda.gov/wps/portal/fsinternet/!ut/p/c4/04_SB8K8xLLM9MSSzPy8xBz9CP0os3gjAwhwtDDw9_AI8zPv

- **Please evaluate this project's effects on your agency's plans and programs and any other issues that you a**
- **Please reply directly from this e-mail and attach your comments.**
- **Please submit your comments no later than Friday August 3rd, 2012.**

Clearinghouse project archive

Questions? Skip Canfield, Program Manager, (775) 684-2723 or nevadaclearinghouse@lands.nv.gov

____No comment on this project ____Proposal supported as written

AGENCY COMMENTS:

Signature:

Date:

Requested By:

Distribution:
- Division of Emergency Management
Alan Coyner - Commission on Minerals
Alan Jenne - Department of Wildlife, Elko
Alex Lanza -
Alisanne Maffei - Department of Administration
CPT Brian Brian Hunsaker - Nevada National Guard
Cliff Lawson - Nevada Division of Environmental Protection
Cory Lytle - Lincoln County
Craig Stevenson - Department of Wildlife, Las Vegas
D. Bradford Hardenbrook - Department of Wildlife, Las Vegas
Dave Marlow -
Dave Ziegler - LCB
David Mouat - Desert Research Institute

Denesa Johnston - Fire Marshal
Ed Foster - Department of Agriculture
Ed Rybold - NAS Fallon
Gary Derks - Division of Emergency Management
J Crandell - Colorado River Commission
James D. Morefield - Natural Heritage Program
Jennifer Newmark -
Jennifer Scanland - Division of State Parks
John Walker - Nevada Division of Environmental Protection
Karen Beckley - State Health Division
Kevin Hill - Nevada State Energy Office
Kirk Bausman - Hawthorne Army Depot
Linda Cohn - National Nuclear Security Administration
Lowell Price - Commission on Minerals
Mark Freese - Department of Wildlife
McClain Peterson - Colorado River Commission
Michael J. Stewart - Legislative Counsel Bureau
Michael Visher - Division of Minerals
Mike Dondero - Division of Forestry
Ms. Deborah MacNeill - Nellis Air Force Base
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Steve Siegel - Department of Wildlife, Director's Office
Susan Scholley - Legislative Counsel Bureau
Terri Compton - Department of Transportation
Tim Rubald - Conservation Districts
Timothy Mueller - Department of Transportation
Tod Oppenborn - Nellis Air Force Base
Wes Henderson - NACO
William Cadwallader - Nellis Air Force Base
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KENNETH E. MAYER
Director
RICHARD L. HASKINS, II
Deputy Director
PATRICK O. CATES
Deputy Director

August 30, 2012

United States Forest Service, Pacific Southwest Region 5
Mr. Randy Moore, Regional Forester
1323 Club Drive
Vallejo, CA 94592

Re: Draft Revised Land and Resource Management Plan

Dear Mr. Moore,

Thank you for the opportunity for the Nevada Department of Wildlife (NDOW) to comment on the Draft Revised Land and Resource Management Plan. We would like to take this opportunity to share the following comments regarding the associated Environmental Impact Statement (EIS) draft. The comments provided below focus on the NDOW, Wildlife Action Plan (WAP), and the Species of Conservation Priority list.

COMMENTS

Draft Environmental Impact Statement (DEIS)

(ES-2 Executive Summary)
This section expresses the public stakeholder's options. The USFS opinion on each one of the topics should be included.

Alternative B (2.3.2)
Alternative B could significantly impact Mountain Beaver (*Aplodontia rufa californica*), a Species of Conservation Priority. This species is physiologically limited to moist microenvironments that need ample vegetation and ground cover. The development of trail systems, montane riparian enhancement and access into these habitats without surveying for *Aplodontia* first will cause irreversible damage to the already fragile wildlife communities.

The Species Refuge Areas (SRAs)
The plan lacks a focused direction for sensitive wildlife species management. The plan describes protection of critical habitat and treatments that will provide habitat, but does not state how to maintain the prey base, or provide adequate foraging range for sensitive wildlife species. The plan does not contain sufficient detail of the sensitive wildlife species on your list prior to this section.

The plan has no information on connecting critical sensitive wildlife species habitats that are fragmented or prey base population maintenance. By opening up canopy and decreasing ground

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litter as this plan states, you are decreasing suitable habitat for the prey base and decreasing the potential usable habitat for many wildlife species. Mule deer are mentioned in Chapter 3, page 443 but only as a TRPA special interest species. There is no information on management directives focusing on maintaining or improving mule deer summer & winter habitat, corridors, fawning and shelter habitat. Mule deer corridors into and out of the Basin need to be inventoried and protected before adding recreational opportunities into the backcountry and determining potential forest health/fuels treatment prescriptions.

Recreational restrictions should be discussed within crucial habitats such as breeding bird habitat, raptor nests, mule deer fawning and corridors. Restrictions could be year round or seasonally, based on the situation and habitat value.

NDOW's Species of Conservation Priority need to be a consideration in the plan's management (see list below). Monitoring, mapping, protecting and expanding these wildlife habitats should be a top priority. Maintaining balanced trophic interactions is critical on the Nevada side of the Basin due to the small land mass Nevada has that supports our Species of Conservation Priority.

3.4.1.1 Methodology
The plan should address how access could affect wildlife and their habitats.

Assumptions
Number 6 needs defining. What is meant by …"sensitive areas …"(plant, wildlife, forested, recreational, WUI)?

3.4.4.3 Environmental Consequences
"General Forest"
The management suggested in this section would have a negative effect on many wildlife species that require later seral stages. Conversion from mid to early seral stage forest will decrease the prey base for American marten, goshawk and owls and mesocarnivores that compete within an unbalanced and fragmented trophic environment. This also has the potential to eliminate corridors for the sensitive wildlife species and decrease limited habitat for forest bats. The general forest prescriptions need to be based on wildlife that are occupying the treatment sites proposed for treatment.

General Comments

1. In the plan, sensitive status species information becomes confusing for the reader because it is difficult to tell which sensitive species group is being discussed.
2. Within Table 2.6.2, the forest vegetation program strategy does not have any connection to sensitive wildlife species. There are general prescriptions without a focused direction.
3. Not until Chapter 3, page 89 is detailed information about the sensitive wildlife species within the Tahoe Basin found. Following the first two chapters can be difficult without the important information on sensitive wildlife species that makes the reader more engaged. This information should be moved to the beginning of the plan to fill in an important information gap.
4. Vague and very general text in some areas made it difficult to find information that would aid in understanding the section being read at the time.

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Page 3

Thank you again for the opportunity to comment. Please contact David Catalano, Western Region Supervisor at 688-1014, for further information.

Sincerely,

Laura Richards

Laura B. Richards, Chief
Wildlife Diversity Division

Nevada Department of Wildlife - Species of Conservation Priority in the Lake Tahoe Basin:

MAMMALS

1. American marten
2. American pika
3. Merriam's shrew
4. Montane shrew
5. Mountain beaver
6. Mountain pocket gopher
7. Mule deer
8. Northern flying squirrel
9. Shadow (Allen's) chipmunk
10. Sierra Nevada snowshoe hare (*Tahoensis*)
11. Western jumping mouse

BIRDS

1. Bald eagle
2. Golden eagle
3. Northern goshawk
4. Peregrine falcon
5. Ferruginous hawk
6. California spotted owl
7. Flammulated owl
8. Short-eared owl
9. Lewi's woodpecker
10. White-headed woodpecker
11. Mountain quail
12. Sooty grouse
13. Rufous hummingbird
14. Sage sparrow
15. Brewer's sparrow
16. Willow flycatcher mountain

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REPTILES

1. Rubber boa
2. Sierra alligator lizard
3. Sonoran mountain kingsnake

COUNTY OF PLACER
Community Development Resource Agency

ENGINEERING & SURVEYING

MEMORANDUM

DATE: AUGUST 27, 2012

TO: MAYWAN KRACH, ECS

FROM: REBECCA TABER

SUBJECT: LTBMU DRAFT LAND MANAGEMENT PLAN (FOREST PLAN) DEIS

This Draft Environmental Impact Statement (DEIS) and Draft Land Management Plan (Forest Plan) for the Lake Tahoe Basin Management Unit (LTBMU) has been prepared by the US Forest Service and circulated for input on the preferred alternative and other alternatives.

The Environmental Impact Statement is programmatic in nature and discusses only the general types of effects that may occur during plan implementation. The environmental effects of specific actions or activities are not discussed. Future project-specific environmental analysis will disclose the specific effects of each project or activity and the ESD may have comments on these future specific projects.

Thank you for the opportunity to review and comment on the DEIS and Forest Management Plan. We only have the following comment:

1. Grading Plans, if applicable, will need to be reviewed and approved by the County prior to commencement of any grading activities within Placer County that are subject to Article 15.48, Placer County Grading, Erosion, and Sediment Control Ordinance. The requirement for submittal of Grading Plans to Placer County, if applicable, should be included in the Required Permits and Approvals section of the EIS.

cc: Richard Moorehead, DPW Transportation

City of South Lake Tahoe
"making a positive difference now"

City Council Member Bruce Grego

August 30, 2012

Nancy Gibson
Forest Supervisor
Lake Tahoe Basin Management Unit
35 College Drive
South Lake Tahoe, CA 96150
Via email(comments-pacificsouthwest-ltbmu@fs.fed.us)

Re: Draft Land Management Plan

Dear Ms. Gibson:

As a member of the City of South Lake Tahoe City Council, I have the following comments on the Draft Land Forest Management Plan being proposed by your agency.

In reviewing the Draft Plan, it would appear that the combination of Alternatives B and C would be in the public's best interest. More specifically, reducing management areas from 21 to 4; the focusing of Fuel Treatment and Wildland Urban Interface areas; accelerating the removal of dead and dying trees; a pro-active approach to invasive species; and, the goals stated in Option B of open access of off highway vehicle use is clearly preferable.

Similarly, Alternative C proposes the reduction of stand densities; permitting Wildland Fire Management; permitting overnight camping and campsites; the encouragement of multi-modal transportation alternatives; the expansion of day use parking; and, the future expansion of recreation infrastructure up to 15% together with the enhancement of recreational access are also elements of Alternative C that I would favor.

I do not support Alternatives A & D. Regardless of the ultimate disposition of this issue, the continued use of over snow vehicles and off highway vehicles should continue to be allowed in the forested areas addressed by your plan.

I also wish to emphasize that I am concerned that any designation of wilderness areas as proposed by your other alternatives, could prevent effective fire fighting in those areas.

City Administrative Center · 1901 Airport Road · South Lake Tahoe, California 96150-7048 · bgrego@cityofslt.us · (530) 544-7575 · (530) 544-7587 FAX

Letter to Nancy Gibson
Forest Supervisor
Lake Tahoe Basin Management Unit
August 30, 2012
Page 2

Thank you for the opportunity to provide input on these very important issues. Please note, I am writing this letter as a member of the City Council and it is not a letter from the entire City Council.

Sincerely yours,

Bruce Grego,
City Council Member of the
City of South Lake Tahoe

TAHOE DOUGLAS FIRE PROTECTION DISTRICT

Ben Sharit, Fire Chief
Mark Novak, Assistant Chief

Steve Seibel, Chairman
Ann Grant, Vice Chairman
Brad Dorton, Trustee
Kevin Kjer, Trustee
Mike Bradford, Trustee

August 29, 2012

Dear Supervisor Gibson:

The Draft Forest Plan and accompanying Draft Environmental Impact Statement (DEIS) for the Lake Tahoe Basin Management Unit provide for the continued recognition of the Lincoln Inventoried Roadless Area (IRA). The DEIS also proposes to continue the current approach to fuels management within the Lincoln IRA. The proximity of the Lincoln IRA to communities in the Tahoe Douglas Fire Protection District (Fire District) and the limited treatment of forest fuels in IRA's gravely concerns the Tahoe Douglas Fire Protection District. Page 3-227 of the DEIS states includes the sentence "we do not conduct much fuel management in roadless or wilderness areas". All of the communities surrounding the Lincoln IRA have been rated as being at "high" or "extreme" risk from catastrophic fire in the Community Wildfire Protection Plans for the Fire District.

The Round Hill Project which was implemented during 2009, left many areas immediately adjacent to the communities of the East Shore untreated due to their designation as part of the Lincoln IRA. This approach will exacerbate the already hazardous conditions which exist within this area. Most areas within the Lincoln IRA are overstocked and are characterized by conditions that will be resistant to suppression efforts and highly susceptible to crown fire. The past century of fire suppression coupled with lack of hazardous forest fuels management within this area will undoubtedly make fires more resistant to suppression efforts and allow them to threaten the lives and property of the citizens of Lake Tahoe.

The Tahoe Douglas Fire District requests that the LTBMU consult with the Fire District to develop treatment protocols for this area that will modify expected fire behavior in a manner that will protect the lives and property of the citizens of our community. Should the LTBMU pursue a reckless and dangerous hands-off approach to fuels management in the Lincoln IRA, the Tahoe Douglas Fire Protection District cannot and will not bear the suppression or structure protection costs of wildfires that originate within the Lincoln IRA. We strongly urge the LTBMU to make provisions within the EIS and the Forest Plan that allow for the necessary fuels management of the sections of the Lincoln IRA that are within the WUI.

Sincerely,

Ben Sharit

Ben Sharit, Fire Chief

P.O. Box 919 - 193 Elks Point Road - Zephyr Cove, Nevada 89448

Phone (775) 588-3591 Fax (775) 588-3046

Tahoe Douglas Visitors Authority

August 29, 2012

Mr. Randy Moore, Regional Forester
Draft Land Management Plan
LTBMU
35 College Drive
South Lake Tahoe, CA 96150

Re: Comments on the Draft Revised Land and Resources Management Plan

Mr. Moore,

Thank you for the opportunity to offer our comments regarding the Lake Tahoe Land and Resource Management Plan.

The Tahoe Douglas Visitor Authority (TDVA) is responsible for the promotion of tourism in our region based on funding received from the collection of room taxes. The TDVA believes the future of the economy in our area is founded on the outdoor recreational activities available in our magnificent natural environment, complemented by amenities provided by tourist and commercial businesses locally. The TDVA supports the Forest Service's direction as described in the preferred alternative (Alternative B) as striking a balance between these interests and encourages the Forest Service to add additional emphasis and flexibility to the recreation opportunities on public lands.

Recreation is one of the pillars of the region's economy and its sustainability is recognized as a key driver in the goals of the Lake Tahoe Prosperity Plan as well as the Tahoe Regional Planning Agency (TRPA) Regional Plan Update. The TDVA believes that the enhancement of year-round, world-class outdoor recreation opportunities in the region should be explicitly called out in the document as a goal.

The TDVA supports the inclusion of provisions allowing for a 15% expansion in existing special use permit areas (described in Alternative C) as well as the removal of Maintenance Management prescriptions for lands within existing special use permit boundaries (described in Alternative B & C) in the final plan. These changes will provide additional flexibility to consider sustainable recreation opportunity enhancements in the region.

Thank you again for the opportunity to comment on this important process and plan.

Respectfully,

John Packer
Chairman

169 Highway 50, Stateline, NV 89449 • PO Box 6777, Stateline, NV 89449 • Phone (775) 588-5900

TAHOE REGIONAL PLANNING AGENCY

Mail
PO Box 5310
Stateline, NV 89449-5310

Location
128 Market Street
Stateline, NV 89449

Contact
Phone: 775-588-4547
Fax: 775-588-4527
www.trpa.org

August 30, 2012

Nancy Gibson
Draft Land Management Plan
LTBMU
35 College Drive
South Lake Tahoe, CA 96150

COMMENTS FOR THE DRAFT LAND MANAGEMENT PLAN and EIS

Thank you for the opportunity to provide comments to the Draft Land Management Plan and associated EIS. The proposed Draft Land Management Plan provides a good range of alternatives and the updated Forest Plan illustrates the use of adaptive management principles from the past 20 years of managing lands in the Tahoe Basin. After reviewing the Draft Land Management Plan and the four alternatives, TRPA's agrees that Alternative B (proposed action) provides a direction that is beneficial to the Lake Tahoe environment.

LTBMU staff has produced a well thought out range of alternatives for the Draft Land Management Plan and their hard work is appreciated. However, as with any document of this magnitude there are some minor items, such as mechanized equipment operating on slopes greater than 30% and group selections up to 9 acres, which currently exceed what is allowed under TRPA Code and the Lake Tahoe Basin 208 Water Quality Plan. Since these "guidelines" are new directions for the LTBMU and there is science suggesting the feasibility of these activities, we look forward to engaging in future discussions on these, and other topics.

Thank you for taking our comments into consideration. If you or your staff has any questions, please do not hesitate to contact me at 775-588-4547 ext. 268. We look forward to working with the LTBMU in ensure a smooth transition to the updated LTBMU Forest Plan and TRPA Regional Plan. Once the new plans are both in place, the TRPA would like the opportunity to discuss updating the existing memorandum of understating between the TRPA and LTBMU to ensure consistency and efficiency as the new plans are implemented.

Best regards,

Mike Vollmer
Principal Planner
Forest Management Program Manager

imagine. plan. achieve.

TAHOE TALLAC ASSOCIATION
ARTS & CULTURAL EVENTS
P.O. Box 19273 ◆ South Lake Tahoe CA 96151 ◆ Phone (530) 541-4975 ◆ Fax (530) 541-4521
www.valhallatahoe.com ◆ E-mail info@valhallatahoe.com

August 30, 2012

U.S. Forest Service
Lake Tahoe Basin Management Unit
35 College Dr.
South Lake Tahoe, CA 96150

RE: Draft Land Management Plan

Dear Matt Dickinson and Denise Downie,

Thank you for the opportunity to review the Draft Revised Land and Resource Management Plan – June 2012. As board members of the Tahoe Tallac Association, we wanted to give our support to the continued management of the Tallac Historic Site as described in existing plans and documents. Through the efforts of the Tallac Association and the U.S. Forest Service, the site has been recognized as a historic center that has enhanced and restored a significant heritage area in the Tahoe region. We are also enabling the public to learn about, as well as enjoy, many rich diverse cultural experiences. The Association annually sponsors the Valhalla Arts & Music Festival, which features events that reflect the art and music of many cultures and historic time frames while enriching the lives of those who attend.

As members of the board we are supportive of Forest Plan alternatives, standards and guidelines that allow this relationship to continue as well as to respond appropriately to changing recreation and cultural/interpretative demands.

The alternatives discuss parking issues and support of removing shoulder parking, the provision and reduction of parking areas, and the support of transit. It is understood that the Tallac Historic Site is located in an area with considerable parking issues and congestion issues during the peak summer period. The variety and type of events which occur at the site range from weddings, music, theater, art, Washoe festival, and community celebrations. Due to the varying nature of the events and the need for event parking that is not impacted by other day users, the Tallac Association requests that any current and future parking and transit management plans be discussed and developed in consideration with the Association so that the site's specific needs are not negatively impacted as a result of parking changes. We appreciate having been included in projects to date and hope that the relationship and dialogue can continue in the future. On-site parking is a critical issue for the Association and we want to ensure that the Forest Plan allows for us to meet those needs appropriately.

Tahoe Tallac Association, a 501c3 non profit organization, operates under a special use permit with USFSDA on the Tallac Historic Site, Highway 89.
This facility is operated in accordance with USFSDA policy which prohibits discrimination on the basis of race, color, sex, age, handicap, religion or national origin.

TAHOE TALLAC
ASSOCIATION
ARTS & CULTURAL EVENTS

P.O. Box 19273 ◆ South Lake Tahoe CA 96151 ◆ Phone (530) 541-4975 ◆ Fax (530) 541-4521
www.valhallatahoe.com ◆ E-mail info@valhallatahoe.com

Lastly, we would like to make the suggestion that the language of the lighting guideline be modified to note that path, parking, and road lighting at facilities with evening events be included. Patrons of the Tallac site often must walk a fair distance in the dark without any lighting. The event venues and parking can be separated by a significant distance due to the limited parking availability. As the guideline currently reads, lighting is discussed for administrative and recreation buildings, landscape structures and signs. We request that event/concessionaire venues be added to the list or other language as appropriate to ensure lighting could be included at some time in the future at the Tallac site. We support the concept that the lighting would protect the dark night sky and be motion activated. But it is also needed at the Tallac site for safety and security.

Sincerely,

Tahoe Tallac Association Board Members
Kathi Daley
Norm Glenn
Stephanie Grigsby
Dave Hamilton
Kerry Hawk
Brenda Knox
Ginger Nicolay-Davis
Bruce Rettig
Frank Riley
Brandi Schlagel
Bob Sweatt
Jenny Sweat
Pam Taylor

Tahoe Tallac Association, a 501c3 non profit organization, operates under a special use permit with USFSDA on the Tallac Historic Site, Highway 89.
This facility is operated in accordance with USFSDA policy which prohibits discrimination on the basis of race, color, sex, age, handicap, religion or national origin.

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1849 C Street, NW - MS 2462 - MIB
Washington, D.C. 20240

9043.1
PEP/NRM
June 1, 2012

ELECTRONIC MEMORANDUM

To: Assistant Secretary, Indian Affairs
Director, Fish and Wildlife Service
Director, National Park Service
Director, Geological Survey
Director, Bureau of Land Management
Commissioner, Bureau of Reclamation

From: Team Leader, Natural Resources Management
Office of Environmental Policy and Compliance

Subject: Draft Environmental Impact Statement (DEIS), US Forest Service (USFS), Lake Tahoe Basin Management Unit (LTBMU), Land and Resource Management Plan, Updated Forest Plan, Implementation, Alpine, El Dorado, Placer Counties, CA and Douglas and Washoe Counties, NV
(ER12-0398) (Comment Period Ends: **08/29/2012**)

This DEIS analyzes the consequences of four alternatives for revising the 1988 LTBMU Land and Resource Management Plan (as amended), commonly referred to as the Forest Plan. Plan revision provides an updated Forest Plan for the LTBMU that would guide management of lands in the Lake Tahoe Basin for approximately the next 15 years. The Friday June 1, 2012 EPA *Federal Register* Notice may be accessed at **http://www.gpo.gov/fdsys/pkg/FR-2012-06-01/pdf/2012-13356.pdf**.

There is no record that DOI reviewed/commented on the NOI, which was originally published March 19, 2010. The DEIS documents are available at http://www.fs.usda.gov/detail/ltbmu/landmanagement/projects/?cid=fsm9_046482.

Please have your appropriate field-level office review the DEIS from its particular jurisdiction or special expertise and provide its comments or indicate "no comment" to the Regional Environmental Officer (REO) San Francisco, CA **by August 15, 2012.**

/s/ 06/01/12

Dave Sire

cc: REO/San Francisco

OEPC-Staff Contact: Lisa Chetnik Treichel, (202) 208-7116; Lisa Treichel@ios.doi.gov

United States Department of the Interior
OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Pacific Southwest Region
333 Bush Street, Suite 515
San Francisco, CA 94104

IN REPLY REFER TO:
ER# 12/0398

Electronically Filed

29 August 2012

Randy Moore
Regional Forester
Pacific Southwest Region
1323 Club Drive
Vallejo, CA 94592

Dear Mr. Moore,

Subject: Draft Environmental Impact Statement (DEIS), US Forest Service (USFS), Lake Tahoe Basin Management Unit (LTBMU), Land and Resource Management Plan, Updated Forest Plan, Implementation, Alpine, El Dorado, Placer Counties, CA and Douglas and Washoe Counties, NV

The Department of the Interior has received and reviewed the subject document and has the following comments to offer.

Emerald Bay National Natural Landmark
The National Park Service (NPS) has determined that there would be no impacts to the Emerald Bay National Natural Landmark (NNL). Overall, there would be a positive effect on the ecology of the environs of Emerald Bay NNL in comparison with the existing Forest Plan. For further information about the NPS NNL program, please contact Steve Gibbons (steve_gibbons@nps.gov), National Natural Landmarks Coordinator at (360) 854-7203.

Pony Express National Historic Trail
The Lake Tahoe Basin Management Unit (LTBMU) is traversed by a segment of the Pony Express National Historic Trail (NHT). The NPS National Trails Intermountain Region office has reviewed the Land and Resource Management Plan, Updated Forest Plan implementation project documents and maps.

Approximately 10 miles of the designated Pony Express NHT route lies on the Lake Tahoe Basin Management Unit (see attached map), yet NPS finds no mention of the presence of the trail in the DEIS. The Pony Express NHT route was designated by Congress in 1992. It is

possible that much of the route has been built or paved over, but several sections on the south end of LTBMU appear to lie in relatively undisturbed areas and could therefore potentially be identified. There are several markers commemorating the trail near Lake Tahoe, including one on the eastern edge of South Lake Tahoe at the site of Friday's Station.

NPS recommends that (1) the presence of the Pony Express NHT on LTBMU be identified in the plan, and that (2) the management requirements and goals for National Register listed sites or Heritage Priority Assets be described.

Additional Concerns and Questions

NPS has the following concerns and questions:

- Are there any plans for NHPA Section 110 surveys, since project inventory opportunities are said to be exhausted?
- Is there any interpretive potential that could be developed at any of the Heritage Priority Assets?
- Are there research opportunities available on LTBMU that might be attractive to academia you can pursue?
- Are any preservation oriented Passport in Time projects planned for the future, as in years past?

NPS believes that the National Register sites and Heritage Priority Assets, as well as the Pony Express NHT, should be actively managed and protected during, and after, the NHPA Section 106 compliance process. NPS would be glad to assist staff with regard to the Pony Express NHT, including providing GIS data showing the designated location of the trail and other information if it would facilitate the planning process. Please contact Michael Elliott (michael_elliott@nps.gov), Cultural Resource Specialist at (505) 988-6092 for further assistance.

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement for the Lake Tahoe Basin Management Unit.

Sincerely,

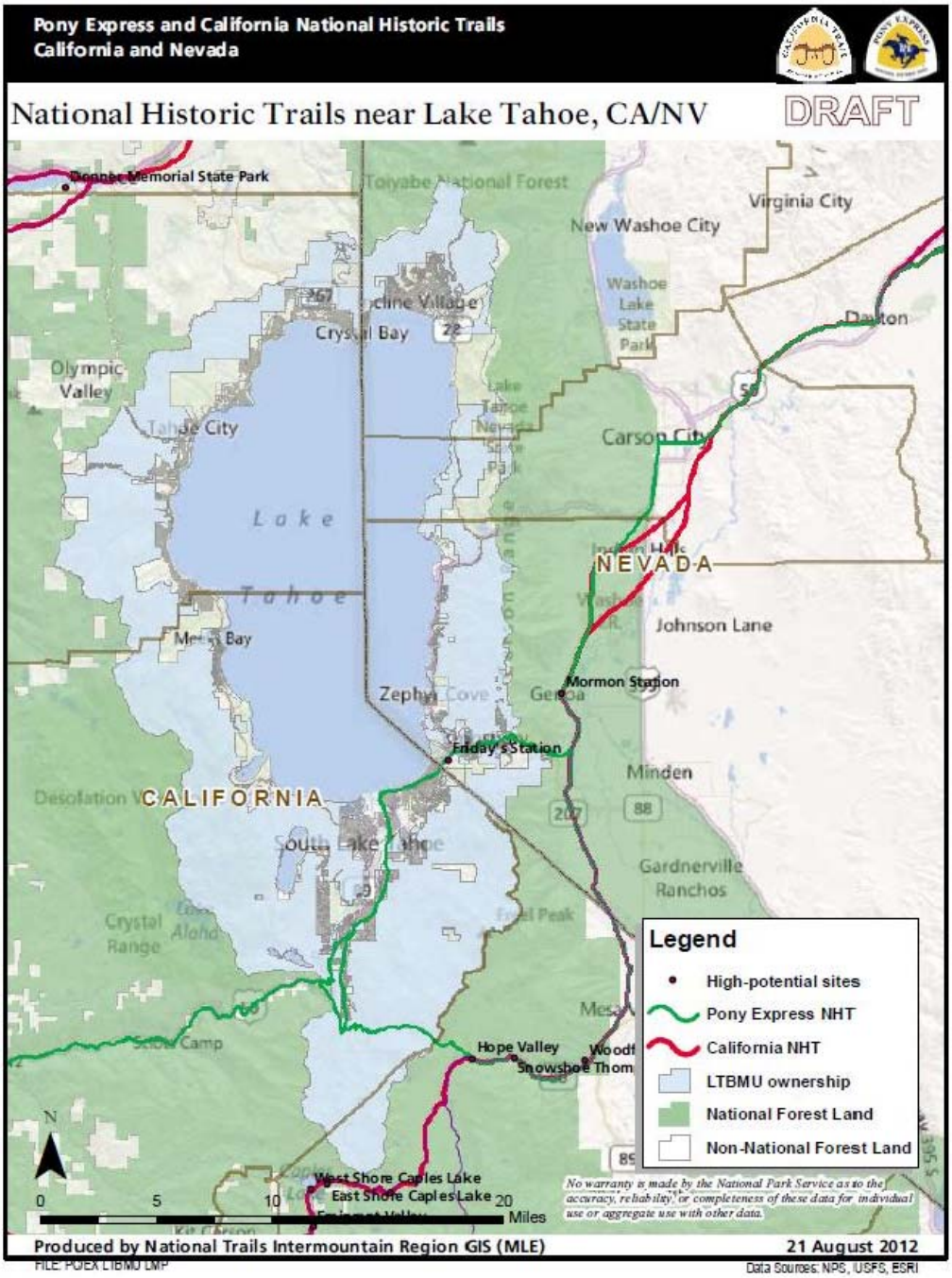
Patricia Sanderson Port

Patricia Sanderson Port
Regional Environmental Officer

Cc:
Director, OEPC
Lisa Chetnik Treichel, OEPC staff contact
Regional Director, NPS

2

Attachment



3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

AUG 2 8 2012

Nancy Gibson
Forest Supervisor
Lake Tahoe Basin Management Unit
35 College Drive
South Lake Tahoe, CA 96150
Attn: Draft Land Management Plan

Subject: Draft Environmental Impact Statement for Lake Tahoe Basin Management Unit Draft Revised Land and Resource Management Plan, CA and NV, (CEQ# 20120168)

Dear Ms. Gibson:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (EIS) for the Lake Tahoe Basin Management Unit (LTBMU) Land and Resource Management Plan pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The draft revised Land Management Plan (Forest Plan) proposes desired conditions, objectives, standards and guidelines for ecological, social, and economic sustainability. LTBMU lands encompass 154,000 acres of the Lake Tahoe region, which is about 78% of all lands in the Lake Tahoe Basin. The Forest Service's preferred alternative, Alternative B, does not significantly change the management course set in the 1988 Forest Plan, but does address more recent concerns such as climate change, and reflects current science and contemporary recreation demands.

Since the Forest Plan will likely not be amended again for many years, it is essential that this revised Plan incorporate efforts to reduce fine sediment and nutrient loads consistent with the technical information developed to support the Lake Tahoe Total Maximum Daily Load (TMDL) adopted by the States and approved by EPA, in 2011. EPA commends the Forest Service and Lahontan Regional Water Quality Control Board for their efforts to address fuel loads and forest health in the wildland-urban interface. Of note are the design measures and best management practices included in the Forest Plan strategies to reduce adverse impacts and meet soil, watershed and water quality, and wildlife, fisheries, and aquatic habitat objectives. The intent of our comments is to ensure that the Forest Plan is both effective and consistent with efforts to restore the historic clarity of Lake Tahoe, including the requirements of the TMDL for reducing loadings of fine sediment particles and nutrients into the Lake.

We have rated the Draft EIS as Environmental Concerns – Insufficient Information (EC-2) (see enclosed "*Summary of Rating Definitions*") due to our concerns regarding TMDL implementation and water quality monitoring (identified in the attached Detailed Comments). In light of these concerns, we recommend the Forest Service include strong and specific language to ensure TMDL load reduction targets are met, as well as emphasize load reduction in the monitoring plan and consider modeling specific project impacts. Although we acknowledge that some water quality concerns will be addressed

on a project-by-project basis, we believe a holistic monitoring effort will best ensure that the Forest Plan will help attain the Plan's objective of achieving LTBMU's load reduction targets (Objective 1, Draft LMP, Vol II, p. 48).

Please note that starting October 1, 2012, EPA Headquarters will not accept paper copies or CDs of EISs for official filing purposes. Submissions on or after October 1, 2012 must be made through EPA's new electronic EIS submittal tool: *e-NEPA*. To begin using *e-NEPA*, you must first register with EPA's electronic reporting site - https://cdx.epa.gov/epa_home.asp. Electronic filing with EPA Headquarters does not change the requirement to submit a hard copy to the EPA Region 9 Office for review.

We appreciate the opportunity to review this Draft EIS. When the Final EIS is released for public review, please send one hard copy and one CD to the address above (mail code: CED-2). If you have any questions, please contact me at (415) 972-3521, or contact Stephanie Skophammer, the lead reviewer for this project. Stephanie can be reached at (415) 972-3098 or Skophammer.stephanie@epa.gov

Sincerely,

Jason Gerbes for

Kathleen Martyn Goforth, Manager
Environmental Review Office
Communities and Ecosystems Division

Enclosures: Summary of Rating Definitions
Detailed Comments

cc: Patty Z. Kouyoumdjian, Lahontan Water Board
Doug Cushman, Lahontan Region, CA Regional Water Quality Control Board
Mike Vollmer, Tahoe Regional Planning Agency
Jason Kuchnicki, Nevada Division of Environmental Protection

2

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

EPA DETAILED DEIS COMMENTS ON THE LAKE TAHOE BASIN MANAGEMENT UNIT DRAFT REVISED LAND AND RESOURCE MANAGEMENT PLAN, CALIFORNIA AND NEVADA, AUGUST 28, 2012

Access and Travel Management

In the Access and Travel Management (ATM) section, it is unclear the extent to which the new and expanded administrative roads required to implement fuels reduction/wildfire prevention projects are to be included (p. 3-12). On p. 3-482, the Draft EIS states that roads of vegetation management projects constitute the most significant risk to water quality from those projects. Is the management (including implementation and maintenance of BMPs and/or design measures) and de-commissioning or obliteration of such roads considered a part of the ATM program? If so, this should be explicitly stated and sufficient program resources should be allocated to achieve the Total Maximum Daily Load (TMDL) and Land Management Plan (Forest Plan) objectives of no increased loading from subwatersheds in which fuels reduction projects are implemented (over the life of the plan).

There is minimal connection to the specific ATM objectives set forth in the Forest Plan. For example, a strategy indicated in the plan states that "road management decisions are prioritized based upon public benefit and ability to eliminate deferred maintenance" (DEIS, Vol II, p.66). What are the consequences for deferring maintenance on forest access roads for fuel management projects? The consequences of these strategies should be explored in the Draft EIS in the ATM section.

The discussion in Sec. 3.4.1.3, Environmental Consequences of Vegetation & Fuels Management (p. 3-20) does not adequately address the potential impacts of new, expanded and more intensively used roads as a result of fuels reduction projects, particularly under Alternative C which includes a greater emphasis on mechanical thinning. What kind of monitoring of project impacts will be conducted, what triggers will be used to determine whether increased loading is occurring, and what mitigations will be employed to address this impact?

If insufficient resources and attention are devoted to internalizing mitigation measures into fuels projects, it is likely that costly retrofitting, rehabilitation and restoration work at a later time (but likely within the planning horizon) will be necessary to achieve TMDL load allocations, which not only call for no net load increases in every forest uplands subwatershed, but an overall 12% reduction in fine sediment loading (p. 3-485) from the vegetated land use category within 15-20 years.

> ***Recommendation:***
> Please clarify what roads and trails are in the ATM plan and identify the roads and trails that may be a part of fuels treatment projects.
>
> Please include projections for the miles of roads and trails that will be added as a result of Alternative B. If this is quantified somewhere else in the document, please reference it here. If these are linked to the objectives, please state the objectives more clearly here (p. 66 of the Forest Plan).
>
> If any miles of roads or trails are added as a result of fuel reduction targets that are presented in this plan, please discuss how they will or will not be managed so as to contribute to meeting the 12% reduction in fine sediment loading for the Basin.

Water Quality

Fine Sediment Loads

The proposed Forest Plan revision must acknowledge the need to significantly reduce anthropogenic loads from all LTBMU sources. The Forest Plan revision should specify actions for aggressively treating LTBMU lands to ensure the forest upland sources, on a basin wide scale, reduce fine sediment pollutant loads by 12 percent within twenty years and ultimately by 20 percent overall. The LTBMU's urban land uses must significantly reduce loads in addition to reduced loads from the forested uplands.

EPA is pleased to see that Objective 2 discusses specific water quality objectives of the Forest Plan including 95% implementation of BMPs and the goal to achieve load reduction targets (DEIS, Vol II, p. 48). The Forest Plan must be amended to include a requirement for the LTBMU to develop and implement a plan for *how* to achieve the 20-year pollutant load reduction targets. The plan should also include measures to reduce loads from discrete disturbances on the forested landscape (e.g. roads, ski runs, fuels management projects) as well as address pollutant loads from stream channel reaches managed by the LTBMU. EPA joins with staff from the Lahontan Water Board in looking forward to working with LTBMU staff to develop a viable pollutant load reduction plan and reporting component, and in offering our support to the LTBMU in evaluating and reporting on annual accomplishments toward meeting load reduction needs.[1]

> ***Recommendations:***
> The Forest Plan revision should specify actions for aggressively treating LTBMU lands to ensure the forest upland sources, on a basin wide scale, reduce fine sediment pollutant loads by 12 percent within twenty years and ultimately by 20 percent overall.
>
> The Forest Plan should include a requirement for the LTBMU to develop and implement a plan for achieving the 20-year pollutant load reduction targets. The plan should also include measures to reduce loads from discrete disturbances on the forested landscape (e.g. roads, ski runs, fuels management projects) as well as address pollutant loads from stream channel reaches managed by the LTBMU (see also first comment under "Monitoring" below).

TMDL Load Quantification

The Forest Plan articulates a long term vision for LTBMU and a framework for achieving it. As such, EPA considers one of the most significant objectives over the coming 15-20 years to be quantifying the impacts of management actions on pollutant loads to surface waters in the Lake Tahoe Basin, particularly fine sediment and nutrient loads to the Lake and its tributaries. As required by the 2011 Lake Tahoe TMDL, this quantification will help ensure that all TMDL loads and achievement of load and wasteload allocations are tracked and accounted for. Significant resources have been invested in developing tools and protocols to achieve this objective, and EPA considers that, over the life of the Forest Plan, a strategy of targeted and gradually more comprehensive implementation of load quantification is both feasible and necessary.

The Draft EIS states that TMDL milestones are analyzed using, among other indicators or tools, BMPEP scores and WEPP analysis (p. 3-467). A recent study conducted by the Lahontan RWQCB and EPA, entitled: "Modeling Report: Lake Tahoe Fuels Reduction Strategy," (Tetra Tech, March 30, 2012),

[1] December 5, 2008 letter from Harold Singer, Executive Officer, California Regional Water Quality Control Board, Lahontan Region; to Terri Marceron, Forest Supervisor, Lake Tahoe Basin Management Unit.

employed WEPP in conjunction with the TMDL's Watershed Model (LSPC) to estimate potential sediment loading impacts from implementation of the Multi-Agency Fuels Reduction Strategy.

The analysis, which was based on LTBMU's WEPP modeling of the Ward Unit 5, Heavenly SEZ and Roundhill projects, showed that implementation of the Fuels Reduction Strategy could have the following impacts on total and fine sediment loading as compared with the estimated TMDL baseline forest upland load:

Table 7-2. Lake Tahoe Watershed Model Sediment Loads for the Baseline and Implemented Fuels Strategy Conditions

	Sediment load (tons/yr)			Percent change (Total sediment load)		Percent change (Fine sediment load[1])	
Project area	Baseline	Literature	Revised	Literature	Revised	Literature	Revised
South Shore Project	155	190	312	+22.2%	+101.2%	+0.09%	+0.15%
Basinwide Projection	18,172	20,957	24,637	+15.3%	+35.6%	+10.1%	+11.7%

1: Fine sediment is defined as particles less than 16 micrometers in diameter.

The 12% potential increase in FSP loads as a result of implementing the basin-wide fuels strategy (which is largely due to the use of mechanized treatments such as whole tree skidding) contrasts with the 12% reduction required by the TMDL by 2026 (6% reduction is required by 2016 and 9% by 2021; see Table 10-1 of the Lahontan RWQCB TMDL Report).

EPA acknowledges the analysis used conservative assumptions and that there are uncertainties regarding the extrapolation from small-scale WEPP modeling to a basin-wide analysis. However, the results of this study underscore the need for greater attention to be paid to measuring total and fine sediment loading impacts from fuels reduction projects than has been the case to date and is committed to in the Draft EIS. It is encouraging to see the statements on p. 3-471 that "USFS will be required to report annually on actions taken to achieve TMDL milestones" and that "the Forest … will continue to adapt its monitoring program to provide better information to inform and validate the parameters used in the TMDL model related to Forest Management activities."

Furthermore, the discussion of road and trail monitoring and modeling on p. 3-473 – 3-474 demonstrates the feasibility of conducting an analysis that both quantifies sediment loading and identifies the most sensitive places and cost-effective efforts (largely to reduce hydrological connectivity) to achieve further load reductions. Given that the Tetra Tech report cited above concludes that the management efforts most likely to cause TMDL load increases are roads and landings associated with mechanized thinning, especially whole tree skidding, and the relatively limited occurrence of this practice currently planned, it appears that monitoring and modeling efforts should be focused here, with the objective of producing a similarly comprehensive analysis to the Forest's 2007 evaluation of road and trail retrofits implemented from 2003-2005.

Recommendations:

The Final EIS should discuss how roads and landings associated with fuel reduction projects will be monitored and modeled to achieve TMDL targets.

The final Forest Plan should include a requirement for LTBMU to develop a monitoring and modeling plan in order to, by the end of the planning period (20 yrs), comprehensively quantify TMDL loads from LTBMU lands (forested and urban) since 2004. See "Monitoring and Modeling of SEZ Restoration Projects" and "LTBMU Urban Facility Stormwater Loading" sections below for additional comments concerning comprehensive TMDL tracking and accounting.

Erosion and Nutrients

In the discussion of nutrient loading from forested non-urban sources—which are proportionately double (for nitrogen, 18%) and nearly three times (for phosphorus, 32%) the relative contribution of forested areas to fine sediment loading (9%)—it should be stated that nearshore water quality is likely more affected by nutrients than by fine sediment, and therefore greater measures to reduce nutrient loading may be necessary to protect nearshore water quality than may be required to achieve desired pelagic lake clarity conditions.

> ***Recommendations:***
> The Final EIS should discuss the measures that may be necessary to reduce nutrient loading from forested non-urban areas.
>
> The final paragraph of page 3-479 states that stream channel erosion represents 2% of the total baseline fine sediment load to Lake Tahoe presented in the TMDL; the correct value is 4% (TMDL Report, p. 7-3).
>
> EPA agrees with the statement that "Current TMDL targets [presumably of the Blackwood Creek bedded sediment TMDL] also need to be incorporated into the new Forest Plan," but seeks clarification on how this will be done (p. 3-480).

Monitoring and Modeling of SEZ Restoration Projects

The list of SEZ restoration projects implemented since 2002 is impressive (though not complete in terms of acres treated by the final four projects) (p. 3-479). Furthermore, the monitoring described shows that these projects are being adaptively managed to maximize their effectiveness. EPA recommends that project monitoring and analysis of available ambient water quality data, especially for projects implemented since 2004, should have as an additional objective the estimation/quantification of TMDL loading impacts of those projects. Tools such as the Stream Load Reduction Tool have been developed to add rigor to these estimates, and should be employed where feasible. Although load reductions from the Blackwood, Ward and Upper Truckee River mainstem projects are assumed to be part of the baseline TMDL Implementation Plan, reductions from other projects may be considered to achieve benefits not incorporated in the Plan, and therefore may represent offsets for possible load increases from other sources on LTBMU lands. Such considerations, if backed by a sufficiently rigorous analysis, should be discussed with TMDL management agencies. EPA would be pleased to participate and assist in these discussions.

> ***Recommendation:***
> EPA recommends that project monitoring and analysis of ambient water quality data should have an additional objective incorporated into the Forest Plan for the estimation and quantification of TMDL loading for those projects.

On page 3-472, the Draft EIS describes soil erosion monitoring through the BMPEP. Although self-monitoring is a welcome addition, it does not represent the only source of information concerning LTBMU BMP deployment and effectiveness. External information sources such as that provided in Lahontan RWQCB Notices of Violation (NOVs) should also be included. The number and seriousness

of NOVs represents another (more independent) means of evaluating the performance over time of LTBMU's BMP program.

> ***Recommendation:***
> External information sources for soil erosion monitoring should also be included.

EPA appreciates and agrees with the discussion of vegetation management, stream restoration, and their relationship to TMDL implementation, including reporting and tracking (p. 3-485). We request that the Forest Service provide further details concerning how monitoring will inform TMDL reporting and tracking, specifically how it can provide estimates of model parameters that may be used to quantify TMDL loading values associated with actions taken to address these two source categories.

> ***Recommendations:***
> The Final EIS should provide further details concerning how monitoring will inform TMDL reporting and tracking.

Watersheds

EPA appreciates the informative discussion of HUC 6 and 7 watershed conditions in Sec. 3.4.24 (p. 3-498). We also appreciate the Forest Service's goal that "…at the programmatic scale all the alternatives propose actions that would maintain or improve current watershed condition ratings" (p. 3-499). This is predicated on the assumption that BMPs are fully implemented and effective, which even LTBMU's BMPEP has shown is not always the case. The current Regional and Forest target is 100% implementation of BMPs and 90% effectiveness ratings (p. 3-473).

LTBMU's watershed condition assessments should be coordinated with implementation of the California Rapid Assessment Methodology (CRAM) currently under development, to avoid duplication. EPA appreciates mention in the Draft EIS of CRAM (p. 3-531), and considers that there may be synergies between these two programs that should be explored by the respective agencies implementing them.

> ***Recommendations:***
> Our suggested addition to Sec. 3.4.21[sic].2 is to the discussion of Heavenly Valley Creek on p. 3-498. This discussion should refer to the Heavenly Valley Creek TMDL, and the status of implementation.
>
> Measures that will improve the rate of BMP implementation and effectiveness to 100% in both categories should be proposed and included in the Forest Plan.
>
> The watershed condition assessments should be coordinated with implementation of the CRAM.
>
> The discussion of cumulative water quality and watershed condition effects should be updated to reflect the 2011 TRPA Threshold Evaluation that is now available (http://www.trpa.org/default.aspx?tabid=174), although the updated information may not materially affect the conclusions reached concerning threshold attainment (p. 3-529).

LTBMU Urban Facility Stormwater Loading

Although not described in the Forest Plan or its Draft EIS, LTBMU's urban facilities, including administrative and recreational structures, contribute to the Lake Tahoe TMDL urban stormwater source category load. These facilities—including, as appropriate, the catchments in which they occur--should be analyzed and TMDL pollutant loading from them should be provided to the appropriate local stormwater jurisdictions at some point during the 15-20 year planning horizon. The Lake Clarity Crediting Program (LCCP) provides the tools (including the Pollutant Load Reduction Model and associated BMP and Road Rapid Assessment Methodologies) to conduct this analysis. Ideally, affected urban stormwater jurisdictions should take the lead in identifying catchments that include LTBMU facilities for priority analysis, and LTBMU's analysis should be coordinated with the LCCP work being conducted by those jurisdictions.

The optimal approach would be for the LTBMU to develop an urban-focused stormwater management plan for its developed areas in cooperation with affected public and private stakeholders. Developed, urbanized areas within the LTBMU jurisdiction likely include campgrounds, visitor areas, maintenance yards, and other facilities where impervious coverage exceeds one percent. The LTBMU stormwater master plan would ideally describe projects and activities (both completed and planned) needed to reduce pollutant loading from these urban stormwater runoff sources.

> ***Recommendation:***
> In the Final EIS, EPA recommends that the Forest Service discuss how management of LTBMU's urban facilities will contribute to achievement of the Lake Tahoe TMDL urban stormwater source category wasteload allocations.

Air Quality

We recognize the challenge the Forest Service faces by implementing a management plan that will rely heavily on prescribed burns and other fuel management activities to achieve restoration objectives. We understand the predicament Forest Service is in regarding balancing short and long-term impacts related to air quality and the pollutant and air toxics emissions.

Pages 3-61 through 3-65 quantify and compare the emissions from prescribed fire and wildfire. However, this section is very unclear and appears disconnected from the analysis in Fire and Fuels section (3.4.10) and Forest Vegetation section (3.4.11). Page 3-61 states that "emissions are projected through five periods with each period consisting of ten years" but the next sentence reads, "the analysis focuses on emissions from the first period of 10 years under each alternative." There is no reference to which projects are projected to be implemented for the analysis, for example, are fuel reduction activities from the South Shore project included in this comparison? How is this related to the Forest Plan objective that LTBMU reach a goal of prescribed burning of 1,800 acres per year in the wildland urban interface (Objective 6, DEIS, Vol II, p. 51).

The prescribed burning total pollutant emissions are almost twice that of wildfire according to the tables (table 3-13 and table 3-14) although may be one fifth according to the figures (p. 3-61, figure 3-20 and 3-21). What assumptions are inherent in this study? Does this assume fuels treatments are effective? More discussion is warranted to explain the discrepancy in figures and tables.

Recommendation:
We recommend that the Forest Service implement BMPs and work with the interagency Smoke Management Group to reduce emissions from prescribed burns and wildfires to the greatest possible extent and incorporate this into specific objectives in the Forest Plan. If these are in the Forest Plan, then they should be described completely and accurately in the Air Quality section of the EIS.

Please clarify why prescribed burning emissions are between about twice to over four times that of wildfire emissions. Clarify the discrepancy between the tables and figures, and provide further information regarding the assumptions and data that are used to derive the conclusions.

EPA is encouraged by the mitigation measures mentioned on pages 3-35 and 3-36 regarding biochar and black carbon. Research on low temperature pyrolysis to make biochar has shown it to be an effective measure in improving the structure and fertility of soils and may decrease fertilizer runoff (p. 3-36) and it is important for the Forest Service to consider the feasibility of such measures in the future. EPA could not find where biochar and the other technologically emerging mitigation measures are mentioned as an objective, strategy, or design criteria in the Forest Plan.

Recommendation:
Consider how mitigation measures for black carbon and greenhouse gases can be incorporated into the Forest Plan.

Grazing and Rangeland Health

Grazing use can significantly affect the functional condition of wetland and riparian areas over the long term by increasing erosion, compaction, sedimentation, and runoff rates. These impacts lead to changes in channel geomorphology and water quality, including increases in temperature, nutrients, fecal coliform, total suspended solids, turbidity, and other contaminants. Grazing is not mentioned in the Forest Plan. The Draft EIS lacks a discussion of grazing allotments in the LTBMU including the Baldwin grazing allotment.

Recommendation:
If it is still occurring, the Forest Service should vigorously manage grazing, especially in riparian and wetland areas that are functioning at risk in a static or downward trend in order to facilitate their recovery. If necessary, please discuss and incorporate protection measures and management actions in the Final Forest Plan/EIS.

Washoe Tribe of Nevada and California

Environmental Protection Department

USFS - Lake Tahoe Basin Management Unit
Attn: Matt Dickinson, Interdisciplinary Team Co-Leader
35 College Drive
South Lake Tahoe, CA 96150

August 30, 2012

Re: Draft Land and Resource Management Plan

To Matt Dickinson:

Thank you for allowing the Washoe Tribe the opportunity to comment on the Draft Land and Resource Management Plan and Draft Environmental Impact Statement for the USFS – Lake Tahoe Basin Management Unit. The Washoe Environmental Protection Department (WEPD) supports the LTBMU's efforts to create a more strategic and less prescriptive forest plan. WEPD supports an approach that will include protection of the cultural and natural resources, management for resiliency to climate change, and addressing aquatic invasive species. WEPD generally supports the current Alternative B as it provides a balanced approach to management while providing for habitat improvement, increased flexibility with forest vegetation and fuels treatments, and protection and enhancement of soil and water quality.

Please ensure that the Special Forest Products and Forest Botanical Products regulations will be recognized in the updated forest plan. WEPD would like to ensure that the cultural resource management will remain as is in compliance with the federal requirements.

The Washoe Tribal Historic Preservation Office (THPO) has reviewed the draft plan and DEIS and is concurrence with the above comments. Please keep us informed on the status of this project. Thank you for providing us with the opportunity to comment. If you have any questions, please contact me at (775) 265-8682 or via email at marie.barry@washoetribe.us.

Sincerely,
Marie Barry

Marie Barry, Environmental Director
Washoe Tribe of NV and CA
Environmental Protection Department

Cc: Darrel Cruz, THPO
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