Appendix 12: Responses to Public Comments

The Role of Public Comment

Solicitation of public comment on draft plans for major National Park Service actions is required under the National Environmental Policy Act (NEPA). Further, the National Park Service must "assess and consider [the resulting public] comments both individually and collectively." These comments are viewed by the National Park Service as critical in helping park managers shape responsible plans for our national parks that best meet the Service's mission, the goals of NEPA, and the interests of the American public. During the formal comment period the public can review and comment on a draft plan's alternative proposals for achieving stated park goals. (The comment period described here is part of a broader effort of public involvement and agency consultation fully described in the Consultation and Coordination chapter.) The comments received are analyzed and the results considered by park management while developing the Final Yosemite Fire Management Plan/EIS.

What is the Response to Public Comments?

This portion of the *Final Yosemite Fire Management Plan / Environmental Impact Statement(FYFMP/EIS)* describes the process used to "assess and consider" the public comments received (from June 19, 2002, through August 27, 2002) on the *Draft Yosemite Fire Management Plan/ Environmental Impact Statement* (*DYFMP/EIS)*. This appendix also presents the public concerns identified, and provides responses to each concern, as prepared by Yosemite staff. Each public concern statement is accompanied by quotes, taken directly from public comment letters that support the concern and provide context for the staff response.

Analysis of Public Comment on the Draft Yosemite Fire Management Plan/EIS

All letters, e-mails, faxes, and comment forms (from public open houses and visitors) received as comment on the DYFMP/EIS were read and analyzed by members of the planning team, using a process called "content analysis," for comprehensively analyzing the content of public comment on a proposed plan or project. Over the last five years the content analysis process has been used for several important planning efforts, including the Draft Yosemite Valley Plan / SEIS and Draft Merced Wild and Scenic River Comprehensive Management Plan/Environmental Impact Statement. This analytical process comprises three main components: a coding structure and process, a comment database, and this narrative summary. Initially, a coding structure is developed to help sort comments into logical groups by topics. The topical coding structure was derived from an analysis of the range of topics covered in relevant present and past planning documents, legal guidance, and letters received from the public. Use of these codes allows for quick access to comments in the database on specific topics. The coding structure was inclusive rather than restrictive in order to sufficiently capture all comments. The second phase of the analysis involved reading each piece of correspondence and assigning codes to statements made by members of the public in their letters, faxes, and emails. Each letter was divided into discrete comments that were each assigned a code. Codes were assigned by one staff person, validated by

another, and each discrete comment was entered as a verbatim quote, with its assigned code, into the comment database. The third phase included identifying statements of public concern and preparing the narrative summary. Public concerns were derived directly from letters and through a review of the comment database. Each public concern presents, in a simple statement, a common theme found in the body of public comment. The public concern statement is worded to capture the action the public feels the National Park Service should undertake and provides decision-makers with a clear sense of actions the public is requesting. Concern statements are not intended to replace actual comment letters or sample quotes. Rather, they can help guide the reader to comments on the specific topic in which they are interested. During the process of identifying concerns, all comments were treated equally—they were not weighted by organizational affiliation or other status of respondents, and it did not matter if an idea was expressed by a hundred people or a single person. Emphasis is on the content of a comment rather than who wrote it or the number of people who agree with it. All public concerns identified are included in this appendix, whether supported by the comments of one person or many people. The process is not one of counting votes and no effort was made to tabulate the number of people for or against a certain aspect of the Draft Yosemite Fire Management Plan/ EIS. There are many reasons for this, the primary one being a desire to prepare the Final Yosemite Fire Management Plan /EIS in a way that meets the mission of the National Park Service and best serves all the people—not just some.

Table.1 presents three parameters that give a general picture of the scope of public response to the *Draft Yosemite Fire Management Plan /EIS*. Because some people commented more than once, the number of signatures, though probably close, does not reflect the actual number of people submitting comments.

Table A12-1
Number of Responses, Signatures and Comments Received During the Public Comment Period for the Draft Yosemite Fire Management Plan/EIS

Number of Responses:	Number of Signatures:	Number of Comments:
143	147	753

Although these numbers give a general sense of public comment, they should be interpreted with caution—the analysis process used attempts to capture the full range of public comments, but those who responded do not constitute a random or representative sample of the general public. Thus, although this information can provide insight into the perspectives and values of the respondents, it does not necessarily reveal the desires of society as a whole.

For more information, the reader should refer to the original comment letters for the *Draft Yosemite Fire Management Plan/EIS*, the *Summary of Public Comment*, anddatabase reports, all available in the Yosemite Research Library (write to: National Park Service, P.O. Box 577, Yosemite National Park, California 95389).

Considering Different Types of Comments under the National Environmental Policy Act

Agencies have a responsibility, under the National Environmental Policy Act (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 used by the YFMP/EIS planning team considered all comments received "individually and collectively" and equally, not weighting them by the number received or by organizational affiliation or other status of the respondent. However, besides the public concern statements developed by the Planning Team, comment letters are considered in several different ways. Public concern statements and supporting quotes form the basic summary of public comment and are the primary focus of park management when considering public comment collectively. These statements are formulated by reading each individual letter, coding each identifiably different concern in each letter to a topical database, and then using that database to identify the range of public concerns in the whole body of public comments. This process treats all comments equally. Demographic information gathered from responses is another way of looking at comment letters collectively, allowing park planners to obtain a picture of certain general aspects of the responding public, like the geographic distribution of commenters, their affiliation with a government agency or private organization, and how different members of the public chose to offer their comments (e.g., by letter, fax, email, public testimony, etc.). Finally, park managers and planners consider all letters from government agencies and American Indian Tribes, from nongovernmental organizations (NGOs), and particularly informative and well-written letters from individuals. The National Environmental Protection Act mandates that managers consider (and print in the final document) all letters received from the first two types of commenters (see Chapter Six, Consultation and Coordination, for copies of these letters). On the other hand, nongovernmental organizations typically represent a number of people, often with pertinent perspectives on one or more aspects of planning for Yosemite National Park and their letters are of interest to managers in making decisions. Public concern statements coded by subject and demographic information may be used in combination by park planners and managers to seek a clearer picture of certain issues, such as what range of issues particular groups are commenting on or, conversely, what different groups are commenting on a particular issue, such as fire protection activities in wildland/urban interface. All of these methods together are used to ensure that the National Park Service assesses and considers public comments "both individually and collectively."

The National Environmental Protection Act requires that after the National Park Service considers comments, they respond to those comments. However, the type of response depends on the type of concern identified. Comments, or the concerns identified from them, are typically classified as those that fall within the scope of decision making for the plan in question and those that fall outside that scope for any number of reasons. Counsel on Environmental Quality regulations define "scope" and require the National Park Service to explain why comments are determined to be out of scope. Generally, the scope of a plan is the range of connected, cumulative, or similar actions, the alternatives and mitigation measures, and the direct, indirect, and cumulative impacts to be considered in the environmental impact statement. If a concern was considered out of scope, the explanation of why is provided by staff. Generally, the types of comments received, and concerns identified, that are considered out of scope include those that:

- Do not address the purpose, need, or goals of the *Yosemite Fire Management Plan*
- Address issues or concerns that are already decided by law or national policy

- Suggest an action not appropriate for the current level of planning
- Propose untenable restrictions on management of the park or conflict with approved plans not being revised by the *Yosemite Fire Management Plan*
- Did not consider reasonable and foreseeable negative consequences
- Point to only minor editorial corrections
- Comments within the scope of the plan are typically classed as either substantive or nonsubstantive. As defined in the National Park Service's NEPA guidance (Director's Order #12) and based on Council of Environmental Quality regulations, a substantive comment is one that:
- Questions, with reasonable basis, the accuracy of the information in the environmental impact statement
- Questions, with reasonable basis, the adequacy of environmental analysis
- Presents reasonable alternatives other than those presented in the environmental impact statement
- Causes changes or revisions in the proposal

Nonsubstantive comments include those that simply state a position in favor of or against the proposed alternative, merely agree or disagree with National Park Service policy, or otherwise express an unsupported personal preference or opinion. Although a commenter's personal opinions on a subject may influence the development of the final plan, they generally would not affect the impact analysis.

The agency is required to respond only to substantive comments. However, to fully inform the public, Yosemite management has asked planning staff to respond to all public concerns identified during content analysis, within and out of scope, substantive and nonsubstantive alike. Responses to out of scope concerns are typically restricted to describing why it is out of scope and does not merit further consideration, although a more elaborate answer may be provided. Responses to substantive concerns are typically more extensive and complete and, more importantly, often result in changes to the text of the final environmental impact statement, for purposes of clarification, if nothing else. Reference to the part(s) of the final document influenced by a concern may constitute or supplement the response. If several concerns are very similar, they may be grouped, with a single answer for the group.

Screening Public Concerns – Identifying Planning Issues Overview

For the *Draft Yosemite Fire Management Plan/Environmental Impact Statement*, an extensive process of screening public concerns and identifying planning issues was undertaken. This process involved methodically: 1) categorizing the public concern statements and supporting quotes received; 2) sorting them based on whether they needed to be reviewed by management or could be sent directly to staff for a response; 3) identifying issues raised by the concerns; then 4) organizing and tracking those concerns, based on the sorting criteria, through regular reports to the Yosemite staff responding to comments and the park management review team. This process, described in detail below, was used to effectively manage and respond to the 202 public concerns derived from the 753 public comments received on the *Draft Yosemite Fire Management Plan/EIS*.

Public Comment Processing

Receipt of Comments—Yosemite National Park staff received all comments, including letters, email, faxes, and comment forms. Each was stamped with a received date, given a unique number, and pertinent data entered into a log. Copies were made for the YFMP planning team and the original was retained in the park's Planning and Compliance Office. Comments received at open houses were numbered, logged, and distributed in the same manner.

Coding Comments—Members of the YFMP planning team were trained in the process of coding. They then read and coded responses according to the categories listed on their coding structure. This information was entered into a master database. From this database, three separate databases were created: Public Concern Statements, Immediate Attention Items, and Information Requests. The screening and tracking process for Immediate Attention Items, Information Requests, and Public Concern Statements each followed a different process, described below.

Responding to Information Requests and Immediate Attention Letters—The Planning and Compliance office provided immediate response to these letters, most of which were requests for copies of the *Draft Yosemite Fire Management Plan/EIS* or to be added or removed from the park's planning mailing list. A few requested other types of information. Using criteria developed during the writing of the *Yosemite Valley Plan*, the National Park Service identified letters needing to be seen quickly by park staff. Letters falling in this category were presented to the Project Manager for review and reference, and for consultation with the management team if needed. The types of letters identified for Immediate Attention include:

- A notice of appeal or litigation, or a threat of harm
- A Freedom of Information Act request
- A proposal for a new alternative
- An excellent review of an issue, or one that was particularly informative and well written
- From a government entity (federal, tribal, state, county, city elected official or agency)
- Requests for an extension of the public comment period
- From a nongovernmental organization (defined broadly)

Public Concern Statement Screening—In reviewing and responding to the Concern Statements and example comments, team members were asked to screen concern statements and provide responses, and in so doing, determine any need to do any of the following:

- Modify alternatives including the proposed action
- Develop and evaluate alternatives not previously given serious consideration by the agency;
- Supplement, improve or modify its analysis;
- Make factual corrections;
- Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicate those circumstances which would trigger the agency reappraisal or further response

Issue Development—Concerns raising an issue that implied a change in plan direction were discussed by the Planning Team and then referred to a team member for response. This response was presented as a recommendation to the Superintendent. Although there were over 200 concerns, only a small number of topical issue areas were referred.

Comment Response—For all public concern statements, including those that did not raise issues needing management review, the YFMP/EIS Team identified the changes needing to be made to the text of the *Draft Yosemite Fire Management Plan /EIS* and the location of these changes. They also began writing the responses that accompany each concern in this appendix.

Management Deliberation on Issues

In a meeting with the Superintendent on April 4, 2003, a briefing paper was presented that consisted of major issue-related concern statements, example public comments and recommended responses. After deliberation, the Superintendent and representatives of the Management Team provided decisions and planning direction. Management deliberation also included input from consultation between park staff, government agencies, and Native American tribes. There were a number of important changes made to the Preferred Alternative in the *Final Yosemite Fire Management Plan/EIS*. These changes are discussed in Chapter 2.

How to Use this Appendix to the Final YFMP/EIS

The public comment information is presented with three elements:

- Concern Statement
- Example(s) of public comments that related to the Concern Statement
- Response, as prepared by a member of the YFMP/EIS planning team.

Comment Response

Purpose and Need For Action

Concern #1: The Fire Management Plan should focus only on managing/reducing fire risks, not on restoring/managing plant communities.

Letters 115, 133, 125, 134

Letter Number: 115

Comment: Why has this plan intermingled fire management to prevent catastrophic or hazardous fires with vegetation restoration? Are these compatible? Based on what criteria? What proof?

Letter Number: 133

Comment: First, the supposed "restoration" of historic conditions is not among the purposes and needs for this project. This is the Fire Management Plan. Only

prescriptions designed to reduce severe fire conditions and maintain a natural role for fire are appropriate.

Response: NPS Director's Order 18, which guides all fire management activities in units of the National Park System, directs that, "Each park with vegetation capable of burning will prepare a fire management plan to guide a fire management program that is responsive to the park's natural and cultural resource management objectives and to safety considerations for park visitors, employees and developed facilities." Ecosystem and vegetation management objectives are discussed in the Purpose and Need for the draft Yosemite Fire Management Plan/Environmental Impact Statement, because of the guidance in DO-18, Yosemite's General Management Plan, Resource Management Plan, and other guiding documents. Preparing a fire management plan as suggested could potentially result in unintended negative consequences for park ecosystems. There is ample scientific literature describing resource impairment that can occur if fire is used improperly during certain phases of species' reproductive cycles. The restoration of the natural role of fire is closely tied to the restoration and maintenance of more natural ecosystems, as ecosystem processes are closely related to ecosystem structure.

Concern #2: The Fire Management Plan should focus on both managing/reducing fire risks and on restoring/managing plant communities.

Letter: 130, 112, 22, 137,

Letter Number: 112

Comment: EPA supports the Park Service's goals of reducing the adverse effect of prior fire suppression, maintaining the natural fire regime in park ecosystems, and addressing the unique needs of developed areas, cultural resources, and the wildland/urban interface

Letter Number: 130

Comment: It needs to be emphasized that the purpose of the plan is more than catastrophic fire prevention. The first purpose identified is to restore the ecosystem and its processes such that fire is allowed to fulfill its natural role. General public perception of the natural role of fire is a non-damaging fire ignited sporadically by natural causes. Forest conditions sufficient to reduce the risk of catastrophic wildfire may not be sufficient to restore the ecosystems and processes in existence for the last 12,000 years. Modern fire fighting capabilities enhance the resistance of a forest to wildfire. Consequently, the extremity of the natural range of variability may provide adequate fire protection. The tree density would be much larger, gap distribution less frequent, fuel loading much heavier and most importantly, a change in species composition and diversity. Fire risk reduction may be accomplished with minimal but more frequent active management.

Response: The draft Yosemite FMP/EIS was written to address this matter. The purpose and need for the document address both managing/reducing fire risks and restoring and maintaining park ecosystems. This is consistent with NPS policy.

Concern #3: The Fire Management Plan should not be a way to justify logging of timber.

Letter: 65, 66, 89, 65,

Letter Number: 66

Comment: ...we see this Plan is a way to provide saw timber for commercial ventures rather than a genuine means of reducing fire hazard. This Park and its timber belong to the people of the United States and should be protected for future generations, no mater what the cost.

Response: The YFMP/EIS was not prepared with a purpose of providing saw timber for commercial ventures. Such a purpose was neither stated nor suggested. The plan identifies various tools for successfully accomplishing the objectives and purpose and need for the plan. Timber thinning was one of the tools identified. The sizes of trees to be included in the treatment prescription will be changed in the Final YFMP/EIS, in response to public comments and technical information.

Concern #4: The National Park Service should clarify whether the FMP is an implementation or programmatic plan.

Letter: 110, 38, 63

Letter Number: 110

Comment: Please make clear in the Final version whether the plan is an Implementation plan or Programmatic.

Letter Number: 38

Comment: The present Draft fails to make clear whether it is a programmatic document, or is intended to be at the Implementation (project) level. This is a basic flaw which suggests that the Park Service itself didn't know. Little wonder that the Draft Plan has resulted in so much confusion, which can be clarified only with a new Draft.

Response: The Draft YFMP/EIS discusses the difference between general management planning and implementation planning, on page 1-18, and project-specific planning, on page 1-25. The Final YFMP/EIS will clarify that this document is an implementation plan for the Yosemite fire management program, and that it addresses NEPA compliance for a suite of fire management actions. It will also clarify the actions for which additional NEPA compliance, tiered to this EIS, will be required.

Park Purpose and Significance

Concern #5: The National Park Service should see Yosemite as a place where any kinds of fire affects are appropriate, and not to be interfered with.

Letter: 105, 102, 4, 77, 73, 54

Letter Number: 105

Comment: Let's let Yosemite be how it should, and when a huge fire comes to destroy everything in its path, give Yosemite a little help sure...but over all, let it go how God intended to go.

Letter Number: 102

Comment: I think a National Park, especially Yosemite should be totally un-manipulated by man, with the exception of managed fires, much like the Indians used to do. If a fire takes it all out, by getting out of control, then it was a natural thing, and nature knows how to heal itself, and it's all a learning experience for us. I can't imagine thinking that we, in our 100 years of experience with fire suppression in forests in this country would even think that we know better than nature as to how to cultivate these forests. If we can just keep the chain saws out, it'll take care of its self. The other thing is, how do they think that they can get rid of bug infestations without fire?

Response: Unfortunately, a great amount of change has occurred in some parts of Yosemite National Park and in large part due to the well-intentioned policies and fire protection measures in place since and before park establishment. For decades National Park Service policy dictated that fires be suppressed. As is discussed in the draft document on page 1-5, and in more detail on page 1-6, fire policies were changed in the 1970's to recognize the important role of fire in national park ecosystems. The draft YFMP/EIS and previous versions did in fact recognize that managed wildland fires should be used in most of the park (83% of the park is proposed as Fire Use Unit). However, 17% of the park consists of either wildland urban interface or lands highly altered by past fire suppression actions; these areas of the park require that other actions be considered—including prescribed fire—to restore and/or maintain ecosystems. Without these actions fire could result in negative rather than positive effects, including altered watersheds, forest stands and wildlife habitat, and on a landscape scale. These effects could not be easily justified.

Planning Process

Concern #6: The National Park Service should be sincere in asking for and using public comment on the draft Fire Management Plan/EIS

Letter: 116,

Letter Number: 116

Comment: We are well aware that by submitting these comments we are merely enabling the Park Service to demonstrate compliance with NEPA by providing the public 'an opportunity' to comment. We further understand that as the lead agency, you have no requirement to be responsive to public comment and that Congress has given you full discretion to do as you please. So why waste our time??? Out of respect to those respondents/friends who have invested hours of time and energy

investigating the Fire Management Plan, sincerely believing you will administer the public process with integrity.

Response: The Final Yosemite Fire Management Plan/Environmental Impact Statement includes changes that were made because of public comment. For example, the location and tree size limits for thinning operations will be changed in the Final. This occurred because of constructive comment offered on this subject by many members of the public. In any plan of this type, there are a great number of varied interests affected. By no means were the public's comments unanimous in requesting specific changes to the plan, but most were offered in the spirit of cooperation and with a desire to contribute to improving the fire management plan. It is easier to respond to comments that offer suggestions or questions, with understandable rationales or explanations.

Concern #7: The National Park Service has made an effort to involve the public in the preparation of the Fire Management Plan/EIS

Letter: 25, 117,

Letter Number: 25

Comment: Your staff was very helpful in answering questions both about Yosemite fire management and other Yosemite issue. However, I was disappointed in how few members of the public attended in the time we were there from 3 to 5 pm.

Letter Number: 117

Comment: Thank you for the opportunity to review and comment on the draft EIS as well as to interact with your staff to discuss the plan, to ask questions, and to walk through elements of the plan in the park. We appreciate and applaud the special efforts you and your staff have made to raise awareness and educate the public about the plan.

Response: No response necessary; the compliments are appreciated.

Concern #8: The Yosemite FMP/EIS does not have adequate scientific basis, or an acceptable focus.

Letter: 113, 76

Letter Number: 113

Comment: The draft Fire Plan referenced above should be rejected and entirely rewritten based on sound scientific methods, historical evidence and research. The YNP Fire Plan Alternatives B and D are smokescreens for a major commercial logging

operation that will accommodate future commercial development and privatization of Yosemite National Park. Alternative B is the most "aggressive" option within the plan, and the most likely to be used even though Alternative D is the "preferred" option. This Fire Plan does not address how the National Park Service will effectively manage projected fire activities given the severe nationwide shortage of trained fire personnel.

Further, National Park Service Fire Plan writers have based proposals on pre-fire management standards dating back to 1860 - without consideration for restoring and reversing man-made changes to Valley hydrology, and without clearly researching or utilizing Native American history of fire management in the Valley. NPS Staff writers have put forth a plan without analyzing consequences of proposed actions. Instead, the plan's emphasis is on removing commercial timber while leaving acres of debris to accumulate over several years, producing a greater potential for major catastrophic fires. While a fire management plan is necessary for Yosemite, in many ways this plan fails the litmus test for common sense.

Response: Please consult Chapter III, *Affected Environment*, for information on the historical and scientific basis for the fire management program. Please consult Chapter IV, *Environmental Consequences*, for the analysis of environmental consequences of the various alternatives. The focus of the Fire Management Plan is set forth by Federal Fire Policy and NPS Fire Management Policy. The alternatives are all geared toward achieving the fire management program's purpose and need. The plan emphasizes meeting fire and resource management objectives; it does not call for commercial logging or an accumulation of acres of logging debris. Prescribed fire and wildland fire are the primary ecosystem and maintenance tools; with thinning restricted to areas adjacent to roadsides and to the six WUI communities, all restricted to the Suppression Unit. All alternatives are based upon an expectation that funding and staffing will continue to be adequate; like all agencies, actual funding and staffing is subject to appropriation decisions.

Concern #9: The Yosemite FMP/EIS does have adequate scientific basis and/or acceptable focus.

Letter: 62, 141, 122, 129, 120,

Letter Number: 129

Comment: The Board of Supervisors has been very concerned by the build up of vegetation and fuel accumulation on lands throughout Mariposa County relative to safety for the public and surrounding communities. The National Fire Plan adopted by Congress has directed all agencies to take a strong look at reducing fuels and the threat to real property from wildland fire. The County recognizes that the National Park Service has a very difficult task before them as evidenced from the analysis contained in the Draft Fire Plan. The health and safety of Mariposa County comminutes is very dependent on successful management strategies by the National Park Service.

Letter Number: 141

Comment: I am personally impressed by your decision to release the Draft Yosemite Fire Management Plan/Environmental Impact Statement. It is obvious that you and your staff are people of vision and have shown the ability to adapt to changing

times and conditions in our national parks. National Parks are special places that need to be managed for ecosystem health, and natural processes however we cannot disregard threats posed by wildland fire to infrastructure, facilities and human life. Recognizing that the past practice of fire exclusion and immediate suppression has affected ecosystem health can be rectified using prescribed fire and wildland fire over time. Immediate protection of values within the park can be expedited using aggressive treatments that your plan clearly lays out.

Response: No response necessary.

Concern #10: The National Park Service should not use the recent large fires in the west as an excuse to cut trees in Yosemite.

Letter: 114, 124

Letter Number: 114

Comment: ...with huge wildfires burning across the nation, and few firefighting personnel and limited resources to attack these fires, the Bush administration's new fire plan dovetails with Yosemite National Park Service's draft Fire Plan to allow commercial logging in our national parks. This is unacceptable.

Response: Thinning of trees in certain areas was proposed in the draft YFMP/EIS as a means of reducing fire danger and restoring historic forest stand structure. In preparing the Final YFMP/EIS, changes were made to the limits on location and size of trees that can be thinned in Yosemite to accomplish fire and resource management objectives. Logging in and of itself was not an objective.

Concern #11: The Yosemite draft FMP/EIS is too broad; an individual EA should be done on each unit.

Letter Number: 33

Comment: My basic objections to this plan 1. It is too broad and an individual EA should be done on each unit.

Response: The National Park Service prepares its fire management plans as park-wide documents and "on an ecosystem basis across agency boundaries, and in conformance with the natural ecological processes and conditions characteristic of the ecosystem (Director's Order 18)." A benefit of this approach is an understanding of effects on a landscape scale.

National Park Service policy for Fire Management Plans, and their environmental compliance documents, states that a programmatic approach will be used. This approach is intended to eliminate the need for EA's or CE's to be done on individual projects that are already described within the FMP EIS/EA. Individual EA's are done for projects outside of the FMP EIS/EA, or if controversies arise over any project, including those that were described in the FMP EIS/EA.

Timeframe for Planning.

Concern #12: The FMP/EIS should indicate how long the plan will be in effect.

Letter Number: 88

Comment: After watching many devastating fires this year; and having witnessed the destruction of the fires in and around Yosemite National Park, I know an updated fire management plan is sorely needed. The beauty of the park cannot be erased by fire because we did not act in time and in best faith. I would like to know how long this plan will be in effect; 10 years, or 20; and when will the next plan be started. Or is this the plan to end all plans?

Response: The short answer is ten to fifteen years, but this version of the YFMP/EIS was written to provide direction for as long as needed to accomplish program objectives. The last version of the FMP was written in 1990, and this version of the FMP could be in effect for a similar period of time, unless policy changes make it necessary to prepare a new revision. Policy changes were one reason for this new YFMP/EIS.

Clarity of Planning Documents:

Concern #13: The draft FMP/EIS is unclear and complicated.

Letters: 115, 123, 119, 116, 76, 74, 86, 70, 67, 90, 59, 100, 63, 65, 110,

Letter Number: 123

Comment: I have attempted to make some sense out of the Draft Plan after looking at it on your web site. I have experienced great difficulty in this, so I really feel I have been shut out of the process by the failure of the Park Service to present the issues in an intelligible manner. However, in talking with a few people who have been struggling with this, I believe some key issues have become evident. One, I believe it is necessary for the Park Service to start over again, and issue a new Draft which a citizen of reasonable intelligence could understand.

Letter Number: 76

Comment: I must say in reviewing the plan that it is mind-boggling, loaded with legal terminology that the average citizen can not grasp the intended repercussions there-in. For the future, I would suggest a detailed yet simple paraphrased format for the average citizen, whom can request the legal terminology format if they so desire.

Response: Concern #'s 13 and 14 both address clarity of the document, but from differing perspectives. These will be addressed together.

Fire management activities, including those described in the draft Yosemite Fire Management Plan/Environmental Impact Statement, are complex and they have risks. In Yosemite National Park, they are employed in a diverse set of plant communities, and in highly variable human communities. In addition, the fire management plan was written to be consistent with terminology adopted in the National Fire Policy and Plan and NPS Fire Management Policy, and for a target audience that includes fire and resource management professionals, local residents, representatives of special interest groups, government officials, and unaffiliated but interested publics.

Efforts to make descriptions "more general or simple" would, as such efforts have done in the past, lead some readers to assume that a limited set of solutions exist that solve all fire-related problems; there is no such universal solution, just as there is no one simple description for the role of fire in ecosystems. Ecosystems differ, and the effects of fire and fire management actions upon them vary. These differences are important considerations, not just for decision makers but for the public.

The complexity of these factors was considered at the onset of writing the draft YFMP/EIS. An editor was used to edit and refine the writing, to make it as reader-friendly as possible without losing important technical meaning needed by some target audiences. As we prepare the Final YFMP/EIS, we will do so with an eye to making the document easier to comprehend, but without losing technical meaning. The Executive Summary will include a short section on changes between the DEIS and FEIS.

Concern #14: The draft FMP/EIS is clear, comprehendible and user-friendly

Letters: 83, 135, 111, 112,

Letter Number: 135

Comment: As a general comment, this DEIS is one of the clearest written and most comprehensive FMPs we have ever read. Your staff should be credited with doing a superb job of writing.

Letter Number: 111

Comment: First I must comment on the excellence of the layout and clarity of the Draft. The text was clear and the use of maps and charts to support each alternative was outstanding. In addition the explanation of the supports which would be used for all alternatives help to clarify many of the questions as to how you would perform and support the alternatives you presented.

Letter Number: 112

Comment: EPA commends the Park Service for developing a thorough and user-friendly DEIS. We found the maps and other graphics included in the DEIS to be of particularly high quality. We also appreciate the extensive list of projects identified as part of the cumulative impacts analysis.

Response: Please see the response above under Concern #13

Concern #15: The draft FMP/EIS is too general and imposes too little constraints on management.

Letter: 63, 82, 66, 103,

Letter Number: 63

Comment: In our view, the proposed management plan is so general and imposes so little constraint on management activities as to require that separate environmental analyses be prepared for every fuels management project.

Letter Number: 103

Comment: This draft plan is not adequate and does not fulfill the disclosure provision of NEPA. Please, prepare a more detailed and specific plan so one might assess the impact of the actions outlined. More detail is needed regarding exactly which trees would be cut and where.

Response: Please see Mitigation Measures, in Chapter 2, *Alternatives*, under *Actions common to all Action Alternatives*. Additional mitigations—especially as they relate to fish and wildlife and their habitat—were added in the Final YFMP/EIS. With respect to treatment area boundaries, please see the map graphics at the end of Chapter 2. In the final YFMP/EIS, mechanical thinning projects for any fire or vegetation management activities outside the ¼-mile protection zone adjacent to the six wildland urban interface communities would require additional NEPA compliance (tiered from the EIS). The limits on locations and sizes of trees that can be cut in thinning projects were changed in the Final; these are now similar to the limits adopted in the Sierra Nevada Forest Plan Amendment (see Chapter 2, Alternatives). The location of treatments, the kinds of treatments that may be used (or cannot be used) in various treatments areas, objectives of treatments, and the effects of these treatments on various resources and issues of concern are described in the document, particularly in Chapter 4.

Concern #16: The FMP/EIS should be available in PDF format.

Letter Number: 25

Comment: Make the online documents, particularly the executive summary, available in PDF format so that we can download a document of interest and study it offline.

Response: Many of Yosemite's planning documents are made available on PDF formal. We will explore making the Final FMP/EIS available in that format as well.

Planning Goals:

Concern #17: The National Park Service should address its fire hazards.

Letter: 30, 104, 25,

Letter Number: 30

Comment: With big fires this year in California, Colorado, Oregon and Arizona; I'm glad that Yosemite National Park is finally going to address their fire problem.

Letter Number: 104

Comment: A Fire Management Plan should focus on this accumulation of tinder particularly near human habitation, historic structures, and maybe the giant sequoia groves.

Letter Number: 25

Comment: Since we live in a fire-prone area in the Sierra foothills seven mile south of the town of Mariposa, we can appreciate the need to reduce the fuel buildup that leads to catastrophic fires.

Response: A principal focus of the DEIS is on the identification and mitigation of wildland fire threats to public safety, communities, and park resources. Emphasis is placed on communities in the wildland urban interface and on special resources such as giant sequoia groves. The DEIS also proposes implementing the risk reduction program at a faster pace than has been done in the past.

Concern #17a: The National Park Service should include actions to support goals related to protecting helibases, heavy use areas and cultural resources.

Letter Number: 130

Comment: Firefighter and public safety are listed as the number one goal of the management plan and protection of cultural resources is listed as number two. The plan notes that three helibases have marginal safety clearances. There is no indication of the condition with respect to areas of heavy recreational use or cultural resources. It is unclear what if any treatment is being proposed to provide safety clearance surrounding these areas. RCRC would support the treatment of helibases, heavy use areas and cultural resource

Response: Helibase clearance will be maintained to meet requirements of both NPS policy and that of the Office of Aircraft Services to ensure safe aviation operations. The Fire Return Interval Departure (FRID) analysis done in the DEIS displays areas at significant risk of harm from wildland fire, principally in the frontcountry of the park. Such areas are also where heavy visitor use occurs. The DEIS proposes both treatment methods and treatment schedules to mitigate wildland fire risk in the next few years.

Concern #18: The National Park Service should not adopt goals that allow logging.

Letter: 6, 101,

Letter Number: 6

Comment: We are alarmed and frightened by the new Yosemite Fire Management plan

which proposes logging of large trees to protect the park's infrastructure of development. We think that logging is a heinous tool for fire prevention, and that it clashes basically with the park's mission which is to protect the "natural objects" in its aegis.

Response: See response to Concern #3.

Concern #19: The National Park Service should not attempt to target conditions at any particular point in time/prior to 1860/prior to fire suppression activities.

Or, The National Park Service should allow natural processes to prevail rather than focus on restoring 1860 conditions.

Letter: 71, 115, 80, 121, 19, 75, 125, 70, 77, 65, 66, 67, 40, 60, 59, 41, 103, 38, 43, 117, 113

Letter Number: 71

Comment: Any attempt to commingle this process with the idea of restoring Yosemite to someone's vision of what it looked like in 1860 (or any other year) would be immensely complicated, invalid, and probably illegal.

Letter Number: 125

Comment: It is totally illogical to select the year 1860 as a benchmark, with the assumption that many of the trees which started growing since then are "unnatural," and therefore subject to being cut. The Park Service picked 1860 because some attempts to suppress wildfires started at that time. In actuality, the suppression attempts would have been largely ineffective because of the primitive nature of communications and transportation, lack of mechanized equipment, lack of firefighters, etc.

And the Park boundaries have undergone massive changes since 1860, so the land base then isn't even the same as now. The use of the 1860 date as a basis for the calculations would result in the CUTTING OF TREES UP TO 31.5 INCHES IN DIAMETER, and EVEN LARGER on the more productive sites, which is totally unacceptable. See Point 2.(f.) above.

There should be no adoption of ANY year, or time frame, as a basis for determining what is "natural." Any date selected would be arbitrary, irrelevant, and contrary to the 1980 General Management Plan.

This is because the NPS is trying to pick a date that represents a time when "natural conditions" prevailed, and "natural conditions" is in the mind of the beholder. After thousands of years of human intervention, we have no idea of what a "natural condition" would look like now---meaning if humans had never affected the natural processes. And why should conditions created

by the setting of fires by Native Americans be considered any more natural than conditions BEFORE arrival of the Native Americans? To the extent that open, park-like forest stands did exist, how do we know it was the result of burning by Native Americans, and not lightning caused? In other words, whom are we trying to emulate, the Native Americans or God? Perhaps we should be attempting neither.

Letter Number: 63

Comment: Also, to accomplish the objectives of fuel and catastrophic fire reduction, there is no need to remove the larger fire-resistant trees. If the objective is to restore the natural forest structure that would exist today, had there been no human interference with natural processes; this requires an ability to determine accurately what the current structure would be. The DFMP does not include a rigorous analysis that will predict such a structure. We doubt seriously that such predictions can be made or that restoration to a predicted condition can be accomplished; because the human manipulations have probably altered irrevocably the trajectories of the forests (See Rapp, 2002, Attachment - E, file PNW_Sci_UPD-B).

Response: The DEIS does not propose the restoration of vegetative conditions to any specific point in time, nor does it propose to maintain such conditions perpetually. We agree that it is difficult to separate lightning ignitions from Native American burning in the fire history research done in the Sierra Nevada and elsewhere. However, there is ample scientific literature that links the accumulation of dead and down woody fuels, the escalating severity of wildland fires, and the increasing density of vegetation to the absence of fire. The mitigation of unnaturally severe wildland fires involves the thinning of vegetation, to levels more in line with those that existed prior to fire suppression. The DEIS proposes to thin vegetation, based on the best scientific information, to reflect a range of conditions which existed when wildland fires played a more benign and natural role. Thinning would be done with fire except in areas immediately near wildland urban interface communities or roadsides in the Suppression Unit. Following the thinning of fuels which contribute to unnaturally severe wildland fires, natural fire will be allowed to function as fully as possible. It is expected that the restoration of lightning fires, and prescribed fire where lightning fires cannot be allowed to burn, will result in a range of fire cycles and ecological conditions similar to those which existed prior to the onset of fire suppression.

Concern #20: The National Park Service should restore ecosystems to their pre-fire suppression conditions.

Letter Number: 7

Comment: This is a vote of confidence for being as aggressive as you can to restore the forest to its 150 year ago conditions.

Response: The DEIS proposes to restore and maintain the natural role of fire to the greatest degree which is feasible, within as short a timeframe as practical.

Concern #21: It is legitimate to thin trees to restore fire regime, but the ultimate goal of the Fire Management Plan should be to restore natural processes.

And: It is legitimate to thin trees/target some species for purposes of restoring the fire regime.

Letter: 86, 126, 123, 6, 140,

Letter Number: 86

Comment: Due to a history of not allowing this to happen in Yosemite, it is not possible to suddenly revert to the use of fire as a brush removal mechanism everywhere. Natural processes, though, should be the ultimate goal that the park service is working toward. Every plan, no matter where it focuses in the park, should aim toward restoring the natural processes.

Response: Response: thinning of trees, either by mechanical means near communities or with prescribed fire elsewhere in the park, is an important step in the restoration and maintenance of fire as an ecological process, which is a goal of the DEIS.

Concern #22: The National Park Service should employ the most aggressive approach to restoring forest health and reducing the potential for catastrophic fire.

Letter: 7, 79, 20, 17,

Letter Number: 20

Comment: I am impressed by the Draft Management Plan's option of rapidly reducing the fuel buildup which threatens large areas of the Park and the surrounding country. There's no time to waste. It would be a shame to see more large catastrophic fires like A-Rock do extensive damage to lower-elevation

Response: The DEIS recognizes that it is important to increase the pace at which wildland fire risk is mitigated and fire restored to a more natural ecological process. Alternatives B, C, and D were developed with this goal in mind. The preferred alternative, D, represents a blend of techniques which achieve this mitigation with mechanical means near communities and with prescribed fire elsewhere in the park within a shorter time than would occur under the current plan.

Concern #23: The National Park Service should use the least aggressive approach to implementing fire management treatments.

Letter: 70, 128, 117, 63,

Letter Number: 70

Comment: I take some comfort from your statement that Alternative D "would likely reverse trends toward vegetation type conversion and reduce the potential of returning large areas of the park to early seral stages of ecosystem development, as happened during the A-Rock Fire." At least we have some goals in common. As I recall, the A-Rock Fire was a managed wildland fire that went awry. What a price to pay for reintroducing fire suppression where season and risk demand it. Given that experience has shown some mistakes to be inevitable as you feel your way through the myriad conflicting demands made upon yourselves, I strongly urge moderation in your pursuit of successive panacea.

Letter Number: 117

Comment: First, aggressive treatments are not necessary. The fuels reduction and "restoration" objectives outlined in the draft EIS can be achieved by using passive treatments and prescribed fire alone. As the EIS clearly indicates, the only advantage to aggressive techniques is that they achieve fuels reduction objectives more quickly.

An equally effective way to accelerate reduction of fuel loads, therefore, may be to increase the number of days during which prescribed burning, other currently used techniques, and proposed passive techniques are used, rather than increasing the intensity of the practices used. This type of approach would provide the NPS with more opportunities to educate visitors about the role of fire, and would avoid the unnecessary impacts of aggressive fuels management. Second, the aggressive approaches are extremely damaging and ecologically disruptive. Even if they were necessary, the environmental harms would far outweigh any fuels reduction or "restoration" benefits. These aggressive techniques, which include cable shredders, would result in ecological impacts that would be significant, long-term, and detrimental. Numerous researchers have provided evidence of these impacts, demonstrating that aggressive mechanized silviculture, such as the practices proposed in the EIS, can spread exotic species, cause erosion, compacts soil, and reduce wildlife usage, among other harms.

Moreover, many scientists both inside and outside federal agencies agree that aggressive silvicultural techniques such as those proposed by the NPS for Yosemite can, in fact, create conditions that increase the risk of wildfire, by increasing exposure to winds and desiccation, changing microclimates, and increasing ignition sources. The Park Service's proposal, which involves in some cases to lop and scatter, and chip and broadcast woody, also risks increasing levels of slash and flashy fuels, which would exacerbate the fuels problem.

Response: See response to Concern #22. As a point of clarification, the A-Rock fire was an unwanted wildland fire, and a suppression response was taken towards it from the moment it was discovered. We agree that any mechanical treatment can have impacts on sensitive resources. The mitigation actions in the FEIS which were developed in consultation with the U.S. Fish and Wildlife Service are designed to address this concern. Fuels generated by mechanical thinning would generally be chipped on site, chipped and hauled off site, or burned in piles over the following winter.

Science/Resource-Based Decision-Making

Concern #24: The National Park Service should follow guidance from Scientific Research

Letter Number: 100

Comment: - FOLLOW GUIDANCE FROM SCIENTIFIC RESEARCH -- The US Forest Service Pacific Northwest Research branch recently published a "Science Update" to help policy-makers deal with fire risk. It should be reviewed and its findings and recommendations should be incorporated in this fire plan analysis. It constitutes some new information that should be considered, as required by NEPA. This "Science Update" is available at http://www.fs.fed.us/pnw/ or you can download it directly at: http://www.fs.fed.us/pnw/scienceupdate2.pdf .

Response: See response to Concern #8. We agree that objectives and procedures for the fire management program need to updated as new research is developed. The Yosemite fire program will also continue to sponsor research done in the park to provide guidance.

Concern #25: The National Park Service should not manage for conditions that existed prior to fire suppression activities, because they had no scientific significance whatsoever and/or there is no evidence to support them.

Letter: 86, 133

Letter Number: 86

Comment: The idea that the year 1860 be utilized as some sort of benchmark for fire management. I cannot imagine what on earth motivated the park service to select that particular point in time. Although it may be associated with a moment when there was a change in fire management philosophy, it has no scientific significance whatsoever, and given the limitation of technology at that time I cannot imagine that it actually marks a significant change in actual fire suppression.

Response: See response to Concern #19.

Concern #26: The draft FMP/EIS should be supported by rigorous analysis that has undergone peer-review.

Letter Number: 63

Comment: Most of the statement about "adverse or beneficial effects" appear to be conclusory and unsupported by rigorous analysis. The sections on the various affected resources should be submitted for peer-review to outside scientists in the various disciplines, who are uninfluenced by the effects of their conclusions on their careers.

Response: Even though a 'strict' peer review process was not followed, park and research professionals consulted with a variety of sources of information in the development of the document. Please see *Organizations and Agencies Consulted* in Chapter 6, *Consultation and Coordination*, and the *List of Preparers* in Chapter 7. The FEIS will contain a Biological Opinion written by the U.S. Fish and Wildlife Service on management requirements for the protection of sensitive species.

Concern #27: The National Park Service should allow its experts to carry out a science-based, active fuels management program.

Letter Number: 9

Comment: It is time to stop caving in to political pressure and threats of litigation and allow NPS experts to finally carry out the right resource management activities in YNP, including a science based, active management fuels program.

Response: The intent of the plan is to manage with a science-based program.

Concern #28: The National Park Service should conduct field trips for the public (like the ones held during the public comment period) to describe and discuss proposed treatments.

Letter Number: 115

Comment: * OBSERVATIONS REGARDING THE FIRE MANAGEMENT PLAN FIELD TRIP CONDUCTED BY THE YOSEMITE FIRE MANAGER IN YOSEMITE ON JULY 24, 2002. FoYV appreciates the Field Trip and marking of the demonstration plot at Happy Isles put together by the NPS Fire Manager. This kind of opportunity to see an actual plot and discuss it with the manager is the kind of experience the public needs in order to better be able to review plans, project and proposals and ask questions and discuss them with the managers. We hope that this is seen as a two-way dialogue in which we all learn from each-other in our mutual quest to preserve and restore Yosemite. However, the amount of manipulation explained to be part of the fire plan's preferred alternative to the area was alarming.

Response: We're glad that the field trips were useful and will continue to use them as tools to promote discussion and comment on plans.

Concern #29: The FMP has adequate scientific support.

Letter Number: 10

Comment: Very pleased with depth of scientific research done on background.

Response: See response to Concern #8.

Relationship to Other Park Plans/Planning

Concern #30: The National Park Service should identify the type of emergency/evacuation response plan it has developed, working with other regional and local agencies.

Letter Number: 15

Comment: What type of emergency/evacuation response plan has been develop between the Park Service, the Department and the regional and local emergency/evacuation response units (i.e. the California Department of Forestry, local fire and rescue units, etc.)?

Response: Evacuation and emergency plans have been developed by Visitor Protection Division staff. Copies of plans pertinent to the fire program will be placed into the final Fire Management Plan.

Concern: #31: The National Park Service should expand the scope of the FMP to include the full range of reasonable alternatives for vegetation management.

Letter Number: 70

Comment: You refer (on page 1-8) to the General Management Plan (1980), the Resources Management Plan (1993), and the Vegetation Management Plan (1997) as the basis for limiting the scope of the Fire Management Plan and EIS. As each of these plans postdates 1969, indicate here the EISs that were prepared for each of them (NEPA review is prerequisite to adopting a plan or policy). Since the Draft Fire Management EIS considers only the means and speed with which Vegetation Management Plan is implemented, it is obviously tiered off the latter. Should there have been no Vegetation Management Plan EIS, it is incumbent upon you to expand the scope of the present EIS to evaluate the impacts of the full range of reasonable alternatives for vegetation management, not just the aggressiveness with which they are implemented.

Response: The scope of a fire management plan is defined by NPS fire management policy (Director's Order 18). The DYFMP/EIS neither states nor indicates that the scope of the plan was limited by the GMP, RMP, or Vegetation Management Plan. Instead, it references these plans as part of the foundation for its goals and objectives (NPS fire management policy directs that fire management plans derive fire management objectives from other land, natural and cultural resource plans). Fire is a tool that can be used to accomplish certain vegetation management objectives but not all of them. Many needed vegetation management-related actions (for example, eradicating certain exotic plant species, re-vegetating disturbed sites, identifying issues related to the use of pack stock, campground restoration, or maintaining certain cultural landscapes) have no relationship to fire, thus, they would not fall under the scope of a fire management plan.

Concern #32: The draft FMP/EIS may be in conflict with other plans including the Merced River Plan, Yosemite General Management and other plans, and these conflicts should be discussed.

Letters: 76, 15,

Letter Number: 76

Comment: The aggressive method is too aggressive, and I'm not so sure it doesn't compete contradictory to the Merced Scenic + Wild River Plan or other facets of the Yosemite Valley Plan or General Management Plan, not to mention the heavy machinery diesel-spewing fumes will add to pollution.

Letter Number: 15

Comment: The potential conflicts between this plan and other Yosemite Park plans should also be discussed.

Response: Please see Relationship of the Yosemite Fire Management Plan to other Yosemite National Park Plans, on page 1-18, in Chapter 1 of the DYFMP/EIS.

General Management Plan

Concern #33: The draft FMP/EIS is in conflict with the GMP and its goal, to “Allow natural processes to prevail.”

Letters: 125, 123, 125, 58, 89, 38, 60, 110,

Letter Number: 125

Comment: One of the five broad goals in the 1980 General Management Plan is "Allow Natural Processes to Prevail." The only concession to "simulating" nature is in the case of "developed areas like the Valley." That paragraph concludes by saying, "In areas that have been disturbed by man's activity, natural processes will be allowed to restore the scene."

Letter Number: 123

Comment: I protest the presumption that a Park planner could be qualified to tell me what the Park ought to look like. I object to someone having decided that they will make the Park look like it did in 1860. It seems to me that your General Management Plan, which calls for allowing natural processes to prevail, should be adhered to. Some of us spent a lot of time and effort participating in the GMP process more than twenty years ago, and I object to the Park Service blithely ignoring it now.

Response: With respect to the Yosemite GMP’s goal to allow natural processes to prevail, it recognizes that “controlled burns or mechanical removal of vegetation” may be needed to simulate the natural role of fire. The draft and final YFMP/EIS was written by fire management specialists, in consultation with fire ecologists, resource management specialists, and research scientists; their intent was to allow natural processes to prevail in most of the park, and where that was not possible at this time (17% of the park), to propose steps to maintain the ecosystem (simulating the natural role of fire) or restore it to where natural processes could again prevail. The intent of the FMP/EIS is not to recreate and maintain a specific point in time.

Concern #34: The draft FMP/EIS's provision for helipads is inconsistent with the GMP direction of eliminating all man-made features.

Letter Number: 4

Comment: It seems the helipad project is inconsistent with the General Plan that is restoring Yosemite back to nature and eliminating all man-made features.

Response: Actually, the Yosemite GMP does not call for eliminating all man-made features. Even so, the helibase upgrades are not new development, but are improvements aimed at making the sites safer for helicopter use.

Yosemite Valley Plan

Concern #35: The FMP/EIS should not facilitate new development in Yosemite National Park

Letters: 116, 115,

Letter Number: 116

Comment: Our greatest fear is that THIS Fire Management Plan has been prepared to serve as a vehicle for clearing out Yosemite Valley to make way for proposed development. In the name of 'fire safety,' trees will be cut down so that roads can be widened and lodging and employee housing can be constructed. Activity can also occur with an eye toward future plans enabling the Park to claim areas have been 'already disturbed.' This is not fire management; this is site development.

Response: Please see Chapter 1, *Purpose and Need*. Facilitating new development is not a purpose of the Yosemite FMP/EIS. Under the FMP/EIS, no new roads will be constructed, no existing roads will be widened.

Concern #36: The draft FMP/EIS's restoration objective should be consistent and coordinated with other plans, including the Yosemite Valley Plan.

Letter Number: 117

Comment: Second, we question whether the "restoration" objective itself (to restore pre-suppression species composition percentages), which is the NPS's primary justification for large tree removal, is appropriate in the WUI areas and are concerned that, from our reading, this objective is neither part of a comprehensive plan for the entire park nor well-coordinated with the Yosemite Valley Plan (YVP). Rather than establish restoration objectives in a single-use plan such as this one, any such objectives should be derived from and consistent with the broader YVP. The YVP did not discuss forest "restoration" and additionally contains components (Black Oak removal to build dormitories, for

example) that are inconsistent with the proposed "restoration objectives" in the draft EIS.

Response: Both the YFMP/EIS and the Yosemite Valley Plan (YVP) are implementation plans that tier from the Yosemite General Management Plan. However, the YVP and other park plans were consulted, and will continue to be consulted, to assure consistency and to identify potential conflicts or areas of cooperation. In situations where tree thinning is already occurring, such as in the Yosemite Falls project and the Hazard Tree Removal program, restoration objectives under the EIS/FMP may already be at least partially met.

Resources Management Plan

Concern #37: The National Park Service should have a Forest Management Plan, for which the fire management plan is not a substitute.

Letter Number: 138

Comment: I believe you need a FOREST Management Plan in place and certainly should not use a Fire Management Plan as a substitute for that.

Response: The YFMP/EIS utilizes fire as a tool for accomplishing objectives derived from other land and natural and cultural resource management plans. Please see *Relationship of the Yosemite Fire Management Plan to Other Yosemite National Park Plans*, in Chapter 1.

Applicable Laws and Regulations

Concern #38: The draft FMP/EIS would subject public assets to fraud and abuse because of lack of transparency.

Letter Number: 40

Comment: Ambience sees red flags waving over your Fire Management Plan. As written, Yosemite's Fire Management Plan subjects public assets to fraud and abuse because of lack of transparency typical of the defamed accounting found in prominent recent cases such as Tyco, WorldCom and Enron.

Response: Oversight of the fire management program is conducted via audits done by the regional and national fire management offices. Specific contracts for fuels management are subject to review by park and regional contracting officials, as well as by the Superintendent. Contracts will be created and managed according to federal requirements and procedures.

NPS Legal Authority

Concern #39: The National Park Service should not allow logs to be removed from the park because it would violate its Organic Act.

Letter Number: 125

Comment: To haul large volumes of logs (former trees) out of the Park would probably a violation of your Organic Act, which calls for preserving the natural features unimpaired for the enjoyment of future generations.

Response: The NPS Organic Act and Yosemite National Park designating legislation preclude commercial timber harvest in the park, but do not preclude the use of tools needed to effectively manage natural and cultural resources consistent with the NPS mission (16 U.S.C. 54 allows for the removal of mature, dead or down timber, as deemed necessary or advisable for protection or improvement of the park). It should be noted that most of the trees cut under the plan would be left in place, but there will be situations where prescribed burn bosses cannot conduct prescribed burns until concentrations of down material can be reduced, because of the risks to plant communities and wildland urban interface. To remove this material would not be a violation of the Organic Act and in fact could help protect against fire-related impairment, such as damage to soils through extensive heat from pile burning, or scorching of overstory trees.

Land Management Laws, Executive Orders, Policies and Guidelines

Concern #40: The National Park Service should be commended for efforts to comply with Federal Fire Policy; it should clarify the ways in which the past plan was inconsistent, and ways in which interagency implement issues will be dealt in the new plan.

Letter Number: 135

Comment: The National Park Service and Yosemite National Park should be commended for your efforts to implement and abide by the 1995 and 2001 Federal Fire Policy. The NPS plays a vanguard role among other agencies in its implementation of the spirit and letter of the Fire Policy. Questions: How and why does the current FMP not comply with the National Fire Plan and Federal Fire Policy? Will the new FMP allow wildland fire use from human-caused ignitions, as the 2001 Fire Policy provides? Also, what provisions, if any, has the Yosemite FMP developed for interagency cooperative planning and management of wildland fires that may burn onto adjacent Forest Service land? Will the Park be forced to suppress wildland fires near its boundaries if the Forest Service does not wish to have fires burn onto its lands, as is implied on pg. 1-11? In Appendix 3 (pg. 3-7) it for prescribed fires or for wildland fire use, too? In our opinion, if an adjacent

agency does not have a current, approved FMP, or does not have the desire to manage fires cooperatively, it should not be the burden of the Park to suffer the adverse effects of suppression to try to confine fires within Park boundaries.

Response: Terminology has changed, and the 1990 Yosemite plan did not address the importance of WUI protection, or discuss tools by which this protection could be done. In the new plan, burn units were updated, and WUI areas where mechanical fuel treatments could be allowed were identified. Most importantly, a commitment to firefighter and public safety as the highest priority is made in the revised FMP/EIS. Current policy does not allow human-caused fires to be counted as wildland fires used for resource benefits, but human-caused fires can be managed with the most appropriate techniques. Joint wildland fire use and prescribed fire plans are being discussed and implemented with the neighboring USFS lands. The pages in question in Appendix three are concerned with prescribed fire.

Concern #41: The National Park Service should clarify whether the layers of protection for Yosemite justify the protection of buildings.

Letter Number: 138

Comment: Were the several layers of protection mandated for Yosemite Valley since Abraham Lincoln's time written to protect buildings?? Have you reviewed these mandates lately?

Response: The mandates relating to managing Yosemite National Park and fires on federal lands were consulted while preparing the draft and final YFMP/EIS. Yosemite designating legislation makes the Secretary of Interior responsible for the "management and care of the park and for the protection of the property therein..." For additional discussion of mandates, please see Chapter 1, *Purpose and Need*.

Concern #44: Per Director's Order 2, the FMP is General Management planning, which means that the National Park Service must do site specific analysis on each of its projects, and present that information to the public.

Letter Number: 63

Comment: Each project proposed to achieve the DFMP objectives must be analyzed in a site-specific manner and published for pubic review in accordance with NEPA. Attention is called to Director's Order # 2, SS 3.3.1.2:3.3.1.2 General Management planning will constitute the first phase of tiered planning and decision making. It will focus on why the park was established and what resource conditions and visitor experiences should be achieved and maintained over time. The general management plan will take the long view, which may be many years

> into the future when dealing with the time frames of natural and cultural processes. The plan will consider the park holistically (in its full ecological and cultural contexts) as a unit of the national park system and as a part of the surrounding region. It will identify the appropriate visitor services. The general management plan will also identify connections among the various park programs and park management districts. This will help avoid inadvertently creating new problems in one area, while attempting to solve problems in another. Decisions about site-specific actions will be deferred to implementation planning. More detailed, site-specific analyses of implementation plan alternatives will be required before any major federal action is undertaken. (Emphasis added.)
>
> The "general" nature of the DFMP is revealed on Maps 2-6 to 2-11, 2-14, & 2-15; in which approximately 160 "Burn Units" are identified. No detailed, site specific information on current or target conditions is provided for these project areas. At a minimum, an Environmental Assessment (EA) must be prepared for those units that will be treated within each year of implementation of the FMP. Each EA must contain all the pertinent existing and target data [treatment area, basal area, size distribution, height to base of crown, crown bulk density, canopy closure, fuel loading (< 3" & > 3"), elevation, slope and aspect, etc.] for each treatment unit encompassed by the EA.

Response: The comment suggests that the YFMP/EIS is a general management plan, per (NPS) Director's Order #2. It is not. The YFMP/EIS is an implementation plan that tiers from the Yosemite General Management Plan (please see page 1-8 and 1-18 in the draft YFMP/EIS). The burn unit maps referenced in the comment provide information as to the areas within which suites of fire management actions (described in Chapter 2, *Alternatives*) would be employed. Target conditions, by plant community type, are provided in Chapter 2. The draft and final YFMP/EIS indicate that the objective of the fire management program is to return forest stand conditions to, and maintain them within, the natural range of variability. These conditions will be achieved by using a standard suite of prescriptions for the application of prescribed fire, listed in Appendix three. The application of fire using these prescriptions is adjusted by the factors listed in the comment, such as fuel loading, to achieve a consistent result, with the expected environmental effects listed in Chapter 4. Each burn block will always require its own clearance for species of concern, cultural resources, and air quality burning permits.

National Environmental Policy Act and CEQ Regulations

Concern #42: The draft FMP/EIS violates the National Environmental Policy Act, in that it fails to present information in a way that can be understood by a reasonably informed and intelligent public.

Letters: 77, 125, 42, 71, 80, 38

Letter Number: 125

Comment: The present Draft violates the National Environmental Policy Act (NEPA). In a nutshell, it is incomprehensible. Failure to present the material in a way which can be understood by a reasonably informed and intelligent public constitutes a violation of NEPA, the most basic intent of which is to DISCLOSE the nature of the proposed action and its potential impacts. You have failed to disclose.

NEPA requires that there be an opportunity for the public to COMMENT, which the incomprehensibility of the present draft renders almost impossible. Failure to provide for public comment is another NEPA violation.

Response: Please see the response to Concerns #13 and #14.

Concern #42a: The National Park Service should not combine fire management and vegetation management activities under one FMP/EIS, because is it not legal under NEPA to use a fire management document to gain NEPA approval for activities that don't reduce fire risk.

Letter Number: 82

Comment: Removing large trees to get back to Pre-European conditions may or may not have ecological value or justification, but it is completely illegal and illogical to use a fire management document to gain NEPA approval for the removal of trees that have no significant effects on fire risk or fire suppression. A separate NEPA document and analysis is necessary in order to avoid misleading the public in this matter. Large trees do not create fire risk. As each of you fully realizes, the removal of trees larger than 20" (and probably larger than 12" dbh) would not significantly reduce rate of spread, flame lengths, fire intensity, or the likelihood of a stand replacing fire.

Response: We are not aware of any clause within the National Environmental Policy Act that makes it illegal to undertake fire management-related activities for any reason other than to reduce risks. The purpose and need for the YFMP/EIS is discussed in Chapter 1, *Purpose and Need*. NPS fire management policy directs that fire management objectives be derived from park land and natural and cultural resource management plans (see the *Yosemite General Management Plan*, for example). The reason that fire management activities are used in vegetation management, in general, is that fire is one of the most profound and important change and maintenance agents to influence the natural ecosystems in Yosemite (thus the proposal to continue managing wildland fire in most of the park). Because of past fire suppression activities, the distribution of tree sizes has changed in many areas, thus fire regimes, forest stand structure and species compositions are altered. Mechanical thinning may be used near developed areas of the park to facilitate the use of fire throughout the park. The maximum diameter of trees removed in the WUI areas has been reduced from 31.5" to 20."

Concern #43: The National Park Service should do site-specific planning, using fuel reduction only as its justification, and this information should be presented to the public prior to taking any actions under the FMP/EIS.

Letter: 86, 77, 63, 11, 82, 38,

Letter Number: 86

Comment: Yosemite is too large and too varied in both terrain and human presence for it not to be necessary to plan individually before taking action at a particular site. There must be site-specific planning to identify what would be the most appropriate fire management techniques to use. These specific plans should, of course, be presented to the public for their review. Not one very broad brush, not several broad brushes, not any pre-fabricated brush would provide a suitable way of addressing the complex variety of Yosemite's needs. Each site must receive individual assessment and the subsequent plans must be open to public

Letter Number: 77

Comment: Because of the highly contentious nature of tree-cutting within a national park, the SITE SPECIFIC ANALYSIS must be an open process, with notification to the public, and ample opportunity for public input to the process. And this is assuming that the analysis is only for the purpose of fuel/hazard reduction. Any attempt to commingle this purpose with the idea of restoring the Park to someone's speculative vision of what it looked like in 1860 (or any other year) would be immensely complicated, invalid, and probably illegal.

Response: In the Final YFMP/EIS, clarifications were made regarding project level compliance. Under the umbrella of this EIS, the NPS will manage wildland fires in the Fire Use Unit, conduct prescribed fires in the Suppression Unit, and carry out mechanical thinning work in the ¼-mile wide inner protection zone around six WUI communities and roadside thinning in the Suppression Zone. If mechanical thinning related to fuel and/or vegetation management is needed in the outer ¼-mile up to 1 ½ -mile wide WUI area following the initial use of prescribed fire, it will require additional NEPA compliance, including public review and comment. Even those activities undertaken under the umbrella of this EIS will require additional site specific documentation, review by subject matter experts, and, when needed, consultation on cultural resources and special status species. Regarding the interrelationship of fire and vegetation management, please see the response to Concern #42 above.

California State Agricultural and Prescribed Burning Regulations

Concern #45: The FMP/EIS should comply with federal, state and local air quality regulations.

Letter Number: 118

Comment: The Yosemite Fire Management Plan should comply with federal, state, and local air quality regulations.

Response: The NPS has addressed compliance with all local, state, and federal air quality regulations in the FMP/EIS. Prior to the writing of the draft YFMP/EIS, park staff consulted with county and state officials, and developed the analysis used in the draft and final in response. The Air Quality discussions disclose all necessary information required by law. In the draft

YFMP/EIS, see the discussion beginning on page 3-40, and the analyses on pages 4-88, 4-169, 4-238 and 4-303.

In Chapter Two, page 2-45 of the FMP/EIS, under the banner "Air Quality," it is written that "all proposed prescribed burns would adhere to requirements of Title 17 California Code of Regulations regarding Agricultural Burning Guidelines, as well as regulations developed by Tuolumne County Air Management District, Mariposa County Air Management District, and/or San Joaquin Unified Air Management District, all of which have jurisdictional boundaries within Yosemite National Park." On page 2-48, under the heading "Air Quality/Smoke Management," it further states that "with all actions in Yosemite National Park or the El Portal Administrative Site involving prescribed fire or managed wildland fire, there would be strict adherence to state and federal regulations. This process mandates consultation with California Air Resources Board (CARB) and local (county) air pollution control officers (APCO), and other federal and state agencies that are involved with similar land treatments." Actions taken under this FMP/EIS will comply with federal, state and local air quality regulations.

Concern #46: The FMP/EIS should consider the effects of fire on regional air quality, human health and scenic resources

Letter Number: 118

Comment: The Yosemite Fire Management Plan should consider the effects of fire on regional are quality. The District concurs with this statement. This statement is consistent with the SMP and Title 17 requirements which requires daily communication between air districts, fire protection agencies and other public agencies, including other states if conditions warrant. The National Park Service should consider smoke impacts on health, visual resources, and events. The District concurs with this statement. This statement is consistent with the District's SMP requirements and of Title 17 requirements. Minimizing smoke emissions and preventing smoke impacts are integral components of the Smoke Management Program. Yosemite's Smoke Communication Strategy implements notification, monitoring and talking points for a comprehensive program to alert the public of smoke impacts.

Response: As discussed in Concern #45, prescribed fire and managed fire use incidents in Yosemite National Park will comply with federal, state and local air quality regulations. These regulations are in place to protect human health and minimize pollutants that would degrade regional air quality. Projected air emissions for the four alternatives considered can be found in Chapter Four of the draft FMP/EIS, on pages 4-303 to 4-307. The cumulative impacts of the preferred alternative, Alternative D, would be major, adverse and short-term. However, it is important to understand that emissions from prescribed fires are approximately 2/3 of the amount of emissions that could be expected from a wildfire (according to FOFEM {First Order Fire Effects Modeling}). Thus, it is prudent to say that prescribed fire over the same piece of ground would result in less emission than a wildfire burning the same area.

As for scenic resources, smoke impacts obscuring scenic vistas are usually short-lived. Variable weather patterns tend to change the volume of smoke that is emitted, and winds tend to shift during the day, causing the smoke column to alter. Inversions can cause smoke to settle over an

area for several hours or days; prescribed burns are scheduled during times of adequate dispersal, in consultation with the California Air Resources Board. Wildland Fire Use fires from natural ignitions (usually lightning) can burn for several months and may be subject to periods of large growth followed by periods of near-dormancy, depending on weather and fuel conditions. Most Wildland Fire Use fires remain at less than 10 acres, but some in recent years have exceeded 1000 acres in size. The 2001 Hoover Fire, a lightning fire that started in early July, burned into December for a total of approximately 8500 acres. Smoke from the Hoover Fire, combined with smoke from several suppression wildland fires burning outside the Park (Creek, Highway 180, Star and North Fork fires), degraded regional air quality. While the fires outside the Park were being suppressed, Yosemite took action to limit the growth of the Hoover fire on 50% of its perimeter, causing significant reduction in smoke production.

Fires that are causing impacts to air quality will be evaluated for effective measures to curtail or significantly reduce smoke production (See page 2-45, *Air Quality,* in the Draft FMP/EIS).

Implementation Funding

Concern #47: The National Park Service should seek funding to treat fuels in ways that benefit the ecosystem, rather than spend greater amounts of money to suppression fires that are destroying resources.

Letter Number: 87

Comment: A thought that must have occurred to many is that it costs ten of millions of dollars to put out a large fire, after the resource is destroyed. Why not put the millions up front to cut pile and burn small problematic trees and brush that have built up after decades of fire suppression. The nutrient value of this burned vegetation would remain on sight and be recycled into the ecosystem, not hauled off to a mill.

Response: Congress has recognized that funding spent on fuels management can mitigate the occurrence, and high costs, of unwanted wildland fires. As a result, the park has received a significant increase in its fuels management funds. As stated in the DEIS, an important reason for fuels management is to mitigate the occurrence of large, damaging wildfires that have burned thousands of acres in the park in the last few years.

Concern #48: The National Park Service should use donated funds to increase fire management activities.

Letter Number: 122

Comment: Why don't you take some of that Yosemite Fund money, that 12 million dollars and spend it on preservation, by increasing managed fire program in the park, and start budgeting more money in that area, so that eventually Yosemite won't have areas that are so thick with combustible material?

Response: the park has submitted proposals to the Yosemite Fund seeking funding for both fire ecology research and public education of the fire program, and the Fund has approved funding for these activities.

Concern #49: The National Park Service should not offer commercial incentives or seek to recover costs through wood sales, because offering incentives to private operators is a slippery slope that could open Yosemite to tree harvesting.

Letter: 77, 58, 114, 68, 121, 113, 116, 135, 59, 67, 134, 42, 71, 38, 103, 125, 71, 75, 74, 87,

Letter Number: 77

Comment: Do not allow logging companies to remove any wood from Yosemite. As a business they have their own financial interests at heart and will be faced to take more than what is allocated in order to cover expenses.

Letter Number: 71

Comment: But calculations using the Park Service's own figures show that, under their Plan, more than FIVE HUNDRED logging truck loads per year would be hauled out of Yosemite to lumber mills!!

The only way to avoid Yosemite being subjected to commercial logging is to require that cut material remain in the Park, preferably as close to its point of origin as possible. The smaller material would have to be burned under controlled conditions to avoid excessive fuels build up. Trying to fund the fuel reduction program by offering commercial incentives to private operators is a slippery slope. It inevitably leads to biasing the process to permit larger trees to be cut in order to subsidize the operation. Oppose this funding mechanism.

Response: The DEIS does not propose commercial tree harvesting has a method of fuels management. Thinning and removal of smaller trees would result in piles of material which would be burned in place, sold as firewood, or utilized within the park such as for fencing. If material removed through mechanical means cannot be burned in place because of an inability to obtain burning permits from local air pollution control agencies, and cannot be utilized inside the park, the material would be disposed of in the same manner as that utilized for many years by the hazard tree removal program. Chipped material may be hauled away to be utilized by cogeneration plants. In any case, any funds received could not be used to subsidize the Yosemite fire management program.

Concern #50: The National Park Service should explore ways to support energy and wood products through thinning operations.

Letter Number: 136

Comment: The cost should be minimal, for a thinning operation produces sources of energy and wood products which cannot be duplicated by fire.

Response: See response to Concern #49.

Public Involvement

Concern #51: The FMP/EIS should include more synthesis of the group and agency consultations conducted during preparation of the plan.

Letter Number: 65

Comment: While the proposed Draft Plan purports to have consulted numerous groups and agencies, there does not seem to have been much synthesis and the resultant Plan is not clear enough for interested parties to understand.

Response: Please see *Organizations and Agencies Consulted* in Chapter 6, *Consultation and Coordination*. A synthesis of the issues of interest to each is included.

Concern #52: The NPS should aggressively educate visitors and interested public to the importance of fire.

Letter: 134, 132,

Letter Number: 134

Comment: We would ask that the Park aggressively educate visitors and interested public to the importance of fire to the Park's and the Sierra Nevada's ecosystem. Help visitors to learn that some smoke and charred trees and landscape are natural, and explain how fire is beneficial and necessary for natural processes and ecosystem elements.

Response: This is a good suggestion, considering the complexity of fire-related issues in a park as diverse as Yosemite. The Division of Interpretation makes frequent efforts to interpret fire in its established interpretive programs and in support of efforts to manage actual fire events. This past year, a fire information display was developed covering the topics suggested. It was in use in the Yosemite Valley Visitor Center for several months. This display will continue to be used periodically, and as needed. We are also considering the development of an educational video, working with our many partners in the scientific community.

The fire management program will step up the rate of public education as the rate of fuel management increases. Interpretive programs, media releases, coordination with U.C. Merced science staff, establishment of fire education staff positions and development of a fire management website are envisioned to meet public education needs.

Coordination With State Agencies

Concern #53: The FMP/EIS should indicate the role of Transportation Management Centers in any fire-related evacuation of Yosemite National Park

Letter Number: 15

Comment: Both District 6, Fresno and District 10, Stockton have Transportation Management Centers (TMC). The District 6 TMC would likely be the Department lead in coordinating any evacuation of Yosemite Park. These coordinated and planned efforts should be a part of any Yosemite Fire Management Plan and any park emergency/evacuation plan.

Response: Park evacuation plans are developed by the Visitor Protection Division. Information concerning evacuation of Yosemite due to fire activity will be in the final Fire Management Plan.

Concern #54: The FMP/EIS should assess the affect of smoke from Yosemite on the rates of evaporation and water level increase at Mono Lake (per the State Water Board's order).

Letter Number: 95

Comment: The State Water Board in 1994 amended L.A.'s water licenses by requiring the City to release enough water into the lake to raise it to 6392 feet above sea level. That rise is taking longer to unfold because possible flaws in the modeling used to project the rate of rise. A layer of smoke over the Mono Basin seems to create a type of mini-green house effect that actually raises the air temperature here. A warmer temperature here increases the rate of evaporation of water from Mono Lake. How will additional smoke from Yosemite affect the State Water Board's order to raise the lake?

Response: We have conducted a literature search and asked NPS and USFS subject matter experts if they were aware of any research indicating a relationship between smoke and evaporation rates on Mono Lake. We were unable to find substantiated information that could serve as a basis for conducting the analysis suggested. There is a possible effect, but smoke from prescribed fire activities is a very periodic event at Mono Lake, thus we were not able to substantiate an effect upon the lake's rate of filling. We would be interested in any scientific literature pertaining to this subject which the author of this comment could provide to us.

Concern #55: The FMP/EIS should more fully address interagency cooperation (with USFS, BLM and others) on fuel reduction projects and managed fires along boundary areas.

Concern #55a: The FMP/EIS should address the activities of other agencies, and their influence upon the annual constraints to burning for the NPS.

Letters: 111, 83, 130

Letter Number: 83

Comment: ·While the Plan addresses the various communities within the Park, it does not speak to cooperation between agencies such as USFS and BLM to reduce fire risk along Park boundaries. Because fire knows no political boundaries, what thought has been given to keeping fire out of the park from the National Forest and adjoining BLM land and keeping fire from within the Park from entering the National Forest and BLM land? We strongly suggest looking at an interagency Fire Plan that would reduce fuels along Park boundaries. Some of that is going on with the USFS, Groveland District already. Continuation of those efforts would be an exemplary project.

Letter Number: 130

Comment: We applaud the park for recognizing the need to provide special management at the park boundaries. Land owners have a responsibility to protect neighboring lands from damage extending over property lines. If both the Forest Service and the park service identified the boundaries as a priority, the two agencies could provide complementary management that provides protection to both incoming and exiting fires without either carrying the total burden. Consultation with the Forest Service would be especially timely as they evaluate the Sierra Nevada Forest Plan Amendment.

Response: On page 1-2 of the Draft FMP/EIS, it is written, "With this plan, Yosemite's fire management program would employ fire management activities to accomplish land and resource management objectives and to reduce the risk of unwanted fire in and adjacent to the park." This implies that there would need to be cooperation and collaboration with park neighbors. On page 1-4, the fifth bulleted item reads, "Fire management activities require collaboration with federal, state, county, tribal and local agencies, and a fire management plan provides a basis for communication, coordination, and project planning with partner agencies." On page 1-12, under the goal of "Conduct a fire management program based on existing policy and in compliance with federal and state regulations," it is intended that this FMP/EIS be consistent with National Park Service and federal wildland fire policy, which includes "coordination and communication with other agencies and jurisdictions." Finally, on page 1-14, in Table 1.1, the fourth bulleted statement reads "Promote an interagency approach to managing fires on an ecosystem basis across agency boundaries and in conformance with the natural ecological processes and conditions characteristic of the ecosystem."

On the western boundary of Yosemite National Park, 17 prescribed burn units have been identified that share common boundaries with the Stanislaus or Sierra National Forests (See Map 2-14; Parkwide Burn Units). These burn unit boundaries were designed for future cooperative project with adjacent agencies. Prescribed burn projects that straddle both sides of the boundary and have cooperator's support will receive high priority. An example of this is the proposed 2003 Moss Creek burn in PW-5 and 6, a Yosemite project that was pushed to a higher priority to complement the Stanislaus NF Larsen Project on the other side of the boundary line.

Yosemite has managed natural ignition fires (Wildland Fire Use; formerly Prescribed Natural Fire) since 1972. In the past few years, both the Stanislaus and Sierra National Forests have begun

to implement Wildland Fire Use. Agreements are in place with the Stanislaus to allow fires to cross the boundary line in the Fire Use Zone on the NW and north end of Yosemite National Park. An agreement with the Sierra National Forest will be developed in the near future to cover fire use incidents on the southern boundary of Yosemite. By "erasing" the boundary lines in permissible fire use zones, fire will be able to better fulfill its role as a factor in the ecosystem.

For suppression fires and fuels work (both mechanical and prescribed), mechanisms are in place to share resources (personnel and equipment) between the federal and state agencies. These have been used often in the past, and will continue to be used as long as all parties are agreeable.

Concern #56: The National Park Service should consult with local government bodies in the Mono Basin, regarding smoke effects of its fire management activities.

Letter Number: 95

Comment: The GBAPCD will be the agency that will be monitoring (like it or not) the smoke from managed burns in Yosemite. Their instrumentation was designed, built, and stationed in the Basin to monitor the air quality here, which has been impaired over the years as a result of uncontrolled water diversions from Mono Lake, by the City of L.A. As you may know, the lowering of the lake has exposed particulate matter that becomes airborne during windy periods (which is the majority of the afternoons spring through fall). We are trying to improve our air quality here in the Mono Basin. When I spoke with the GBAPCD people today, they told me no one from Yosemite had contacted them regarding how smoke from Yosemite burns may affect their work here in Mono Basin.

Response: As part of Title 17, Smoke Management Guidelines for Agricultural and Prescribed Burning, Yosemite is required to notify the Air District having jurisdiction, as well as neighboring air districts that may be affected by smoke from prescribed fires. This has been done in the past, and will continue to be done in the future. During the 2002 PW-3 Gin Flat Prescribed Fire, smoke impacts were noted on the east side of the Sierra, in the Mono Basin area. Prior to ignition of this unit, the Great Basin Air Pollution Control District, as well as the State of Nevada Air Quality Management District, were both contacted via telephone by Yosemite Fire Management. Additionally, all neighboring air districts, including the two above, received a fax each morning that ignitions were conducted. The fax included a contact telephone number in the park for questions or concerns. This procedure will be followed on future fires as well.

A scoping meeting for comments on the draft FMP/EIS was held in July of 2002 at Mammoth, CA. A presentation of all four alternatives and potential impacts was delivered by Yosemite Park staff, followed by a question and answer period. It was open to all local government agencies, as well as the general public.

Partnerships

Concern #57: The National Park Service should utilize stewardship partnerships, to allow wood removal consistent with restoring healthy forests.

Letter Number: 79

Comment: Establish a partnership. In exchange for logs, logging companies would thin the forest, clear out debris and assist in promoting a healthy, more diverse forest as established between the forest service and the logging companies.

Response: The NPS has been directed by the Department of the Interior to utilize contracts whenever possible to remove hazardous amounts of fuel, either via mechanical thinning or the use of prescribed fire. There is no program envisioned under the DEIS for trading fuel reduction work performed in exchange for logs. However, if prescribed fire cannot reduce hazardous amounts of fuel adjacent to the six WUI communities, contracts could be established to allow the removal and sale of hazardous fuel. Such a process would involve the preparation of a site-specific environmental compliance document, such as an Environmental Assessment, and provide an opportunity for public comment.

Concern #58: The National Park Service should utilize stewardship partnerships, to allow wood removal consistent with restoring healthy forests, but only within 300 feet of WUI and private property.

Letter Number: 82

Comment: Our Center does not object to the removal of large wood from the Park…even in some sort of trade for treatment exchange (such as a Stewardship Contract kind of agreement) IF AND ONLY IF such mechanical treatments are limited to the 300 ft. buffers around private property, utility lines, and structures. We do NOT agree that 300 ft or even 200 ft buffers alongside of roads should be treated aggressively, since many road areas can easily be maintained through periodic prescribed burning treatments. Road buffers should only be mechanically treated in those few situations where prescribed burning cannot possibly meet fuels objectives in a safe manner.

Response: See response to Concern #57. In addition, mechanical fuel removal as the initial fuel reduction treatment would be limited under the preferred alternative to within ¼ mile of the six wildland-urban interface communities (El Portal, Yosemite West, Wawona, Yosemite Valley, Hogdgon Meadow, and Foresta.) The selection of ¼ mile as a buffer was based on the minimum distance required for the safe utilization of prescribed fire; less than that distance would pose a significant risk to structures due to flying embers from prescribed fire. Mechanical work could be done between ¼ and 1 ½ miles of these communities if prescribed fire does not result in sufficient reduction of hazardous fuels or in the attainment of vegetation management targets. Such mechanical follow-up work would require an environmental compliance document and provide for public comment. Clearing of roadside buffers would not be done to meet vegetation management targets, but rather to facilitate the use of roads as fuelbreaks and evacuation corridors. Roadside thinning and brushing under utility line corridors would not employ aggressive techniques, but would use hand thinning and piling methods.

Concern #59: The National Park Service should not utilize stewardship partnerships, because there is no reliable monitoring, supervision or auditing in place to protect the park's natural resources.

Letter Number: 114

Comment: "Partnering with private enterprise" would open the door for Yosemite's NPS to harvest vast tracts of forest because there is no reliable monitoring, supervision or auditing processes to scrutinize NPS (and partner) activities to begin with, including the GAO. When the General Accounting Offices personnel have requested documents and data, Yosemite's upper brass has failed to produce requested documentation on numerous occasions, and for purposes of illustration, investigation into the use of 1997 flood-recovery monies more than qualifies. Yosemite's National Park Service has caved into political agendas, and promoted more than a few of their own, openly co-opting environmental organizations while teaming up with corporations to commercialize and develop Yosemite National Park – then posturing publicly as an agency that protects our nation's natural resources.

Response: There is no use of stewardship partnerships envisioned at this time, which would exchange fuel reduction work for logs. Fuel reduction contracts would be limited in scope to areas around wildland-urban interface communities, roadsides, and utility corridors in the Suppression Unit. All contracts would be managed and inspected by contract representatives and monitored to ensure that contract specifications are met. Mechanical fuel reduction work would be replaced by wildland and prescribed fire as often as practical throughout the park, following the initial treatment.

Development of the Proposed Alternatives

Concern #60: The National Park Service should consider adding criteria related to meadow enhancement, vegetative species conversion, cultural sites, heavy use areas, and wildlife areas, for purposes of guiding implementation of the alternatives.

Letter Number: 130

Comment: We concur with the Park that all alternatives achieve the goals and objectives, differing only in time and methods. We support the criteria established. As stated above, we recommend meadow enhancement, vegetative species conversion, cultural sites, heavy use areas and wildlife areas be added as criteria and Level 1 priority under Special Management Areas.

Response: All the criteria listed are considered in project planning for prescribed fire, wildland fire use and mechanical thinning. They are an important management emphasis for the park's natural resource management program. As high priority projects are identified by the Resource Management Division, within which fire can be used as a tool, prescribed fire projects will be developed to support these priorities.

Concern #61: The National Park Service should explain why past treatments were so limited in scale, and why in the future it will be different under the action alternatives.

Letter Number: 11

Comment: The document does not explain why past treatments were so limited in scale, nor why suddenly that will magically change if an aggressive action alternative is selected. Any alternative should be based upon an accurate assessment of both budgets, political limitations, and personnel limitations.

Letter Number: 11

Comment: How is it that the Park now expects that funding and staffing, burn windows, paperwork completion, and other factors will suddenly result in Alternative D (or B) burning considerably more acres per year?

Response: Since the last FMP was developed in 1990, several new factors have appeared. The fire management staff has added new prescribed fire specialists as well as a new fuels management crew to dedicate full time to the program. Contracting has been made a major emphasis by the Dept. of the Interior, so that the private sector can be hired to accomplish fuel projects; in support of this, Congress has made available millions of dollars for contracting. This commitment of funds and staffing is a result of the new importance the Executive and Legislative branches of the federal government, as well as the state and local governments, have placed on a proactive, rather than reactive, response to wildfires. The effect has been more aggressive fuel management programs, with extra emphasis placed on community involvement and protection. Another important factor has been that land managers are being held accountable for accomplishing the magnitude of fuels projects that they say they can do

Concern: #62: The FMP/EIS should give higher priority to protecting Sequoia groves than to protecting Wildland/Urban Interface.

Letter Number: 63

Comment: If human developments were to be destroyed by a catastrophic fire event, they could be replaced - probably within a decade -- although we would not recommend that replacement occur, since the destruction would be a consequence of a natural process. But replacement of the sequoia groves would take millennia and might not ever be possible. Therefore, we recommend that the groves be given a higher priority for protection than the urban/wildland interface. While the groves themselves represent a small number of acres, it is essential that the surrounding forest also be treated to assure protection

Response: As directed by the 2001 Federal Wildland Policy Review, natural and cultural resources are given the same priority as property. The only higher priority is given to firefighter and public safety. In 2003, prescribed fires will be conducted the sequoia groves while WUI work is being done around communities. Increased funding and staffing allows both programs to proceed concurrently.

Concern #63: The FMP/EIS should include additional discussion of the relationship between zone size (in the Fire Use Unit and Suppression Unit) and the fire return interval departure analysis.

Letter Number: 130

Comment: Additional discussion of the designation criteria for lands identified in the Fire Use Unit and the Suppression Unit would be beneficial. The plan categorizes 48% of the park as "significant deviation" to "highly compromised" from the natural range of variability. The plan also concludes the greater the deviation the greater the risk of catastrophic wildfire. It is therefore confusing to find only 17 percent of the park in the Suppression Unit. At a minimum, the 48,912 acres (6.5 percent of the park) in the Fire Use Unit that is identified as needing additional prescribed fire before wildland fire would be safe and appropriate, should be included in the Suppression Unit until it is safe and appropriate. The plan reports most prescribed burn units require multiple burns to meet resource objectives and 7 to 12 years typically pass between prescribed burns. Therefore, lands identified as needing additional prescribed fire could require decades before it is safe and appropriate to allow the use of wildland fire.

Response: In the discussion of the Fire Management Units in Chapter 2, it states that parts of the Fire Use Unit, 48,912 acres, are placed in prescribed burn units due to high fuel loads and resources of concern. The Fire Use boundary is not based on the Fire Return Interval Departure (FRID) analysis alone. It also considers natural fuel and topographic boundaries. Managed wildland fire is the primary tool in these units, but this does not exclude the use of prescribed fire as a tool in areas with unnaturally high fuel buildups. By being placed in the Fire Use Unit, wildland fire may be used to achieve resource management objectives. Wildland fires are much less likely to be allowed to burn to achieve fuel and resource objectives in the Suppression Unit, because of risk to communities, for example. Placing these areas in the Fire Use Unit indicates that they may be treated by either prescribed fire or wildland fire used for resource benefits.

Concern #64: The fire return interval analysis needs to be consistent between forest types.

Letter Number: 130

Comment: The comparison of fire return intervals is inconsistent between forest types. For example, the red fir forest analysis uses the maximum return interval of 92 years to declare the affect of fire departure has been minimal. Using the minimum fire return interval of 9 years or even the median interval of 30 years would paint a different picture. In fact it is similar to the western white pine/Jeffrey pine forest that has a maximum fire return interval of 96 years, minimum of 4 years and median of 12 years. Using the maximum return interval concludes the vegetation has not been altered by fire exclusion. Using the median of 12 years most of the forest has been significantly altered by missing up to five fires. There should be consistency in the comparisons.

Response: One of the ecological strengths of the fire return interval departure analysis (FRID) is that it has the ability to differentiate between fire regimes in different forest types. The discussion

of forest types and FRID in Chapter 3 use both the Maximum and Median Departure to look at how different vegetation types are reacting to fire suppression. All comparisons of Environmental Consequences in Chapter 4 used median departure, which is a moderate view of vegetation community departure.

Range of Alternatives

Concern #65: The FMP/EIS should not include alternatives that would remove trees up to 31.5 inches.

Letter Number: 117

Comment: The preferred alternative proposes to remove up to 31 inches d.b.h. to "restore" species composition to assumed pre-suppression percentages. We are extremely concerned that, in the name of “restoration," the agency has proposed a limit on tree size that is far too permissive. The agency's proposal, as it stands, will be ecologically damaging, will likely create significant public concerns, and will set a truly unacceptable precedent within the National Park System and potentially beyond. While we appreciate and respect individual NPS staff assurances that the 31-inch limit will be implemented judiciously and in good faith, our organizations will not support, and will publicly oppose, a fire plan that allows the NPS to remove trees up to 31 inches in diameter. We have four principal reasons for saying this.

Response: For the Final YFMP/EIS, the upper limit for size of tree that can be cut during thinning operations was revised from 31.5 inches to 20 inches in the proposed action. Furthermore, under the FEIS, this thinning for forest restoration would only occur within ¼ mile of the six WUI communities.

Concern #66: The FMP/EIS alternatives should include provisions to tailor the approach in WUI to the particular circumstances of each (this includes Yosemite Valley).

Letter Number: 117

Comment: Consideration of the option(s) recommended in the EIS would allow the NPS to tailor its approach in WUIs to the particular circumstances of each, as well as to determine whether in Yosemite Valley there is any need to depart from the current conservative approach. In fact we would expect this analysis to reveal that there is no need to depart from current policies in the Valley, because we understand from conversations with Park staff that fuels reduction objectives could be met in the Valley without any change in existing policies.

Response: Each WUI area was considered individually in designing its boundary, or area of concern. This was done taking into account fuel continuity on both a horizontal and vertical plane, topography, and probable routes a fire would travel into or out of that area. There has not been a blanket approach in designing the boundaries of each WUI area; nor would there be for

treatments. It is not a "one-size-fits-all" approach; each area is and will continue to be evaluated for the appropriate treatment for the specific area. In many instances throughout the WUI areas in the park, Yosemite Valley included, prescribed fire as a primary treatment next to structures would be too risky without some thinning of fuels and standing trees. Once the thinning has been completed much of the risk for prescribed burning will have descended to a more manageable level. The community of Wawona is an excellent example of a range of treatment methods. In some areas, because of distance from structures and the lay of the land, broadcast burning has been the primary treatment. In other areas, because of high fuel loads and topographic position, small diameter tree thinning and pile burn were necessary primary treatments. Once the areas were mechanically treated, prescribed fire was used as a follow-up treatment. The philosophy of the FEIS/FMP is to consider the use of fire first to reduce fuels and restore target conditions. In those areas where fire as the initial tool would be unsafe, mechanical thinning is done, followed by prescribed fire.

Concern #67: The range of alternatives is limited because the draft FMP/EIS should have considered alternatives that attempted to increase the frequency-of-use and period-of-use for existing policies and less intrusive techniques.

Letter Number: 117

Comment: The National Environmental Policy Act (NEPA) requires the agency to consider a full range of alternatives in its planning, yet all of the action alternatives in the draft EIS are a simple "variation on one single theme." They all consider differing mixes of "passive" and "aggressive" techniques--variations on the intensity of management. We are concerned that the NPS has not considered any alternatives that attempt to increase the frequency-of-use and period-of-use of existing policies and less intrusive techniques (e.g., increase the number of days per week that prescribed fire is used). Similarly, the agency has assumed it will operate under a 31-inch diameter limit across all action alternatives, and it has not yet examined alternatives that propose lower diameter limits along with less intensive methods. Because this is a National Park, we believe that the agency should not only consider, it should in fact adopt, the least intensive methods operating with the strictest logging limits.

Response: See response to comment #66. It should be noted that the National Park Service considered more alternatives than just those included in the range of alternatives and the list of alternatives considered but dismissed, but it would have been infeasible to include an all-inclusive list of "variation" alternatives. The requirement of NEPA is that the agencies consider a reasonable range of alternatives. The alternative suggested in the comment is very similar to No Action, an alternative that was considered. It should be noted, however, that some policies in the No Action alternative were inconsistent with the 2001 Federal Fire Policy, which said, "A full range of fire management activities should be used to achieve ecosystem sustainability, including its interrelated ecological, economic and social components." The No Action alternative failed to adequately address wildland/urban interface issues, as required by the 2001 Federal Fire Policy. Reasons for eliminating an alternative from further study (per NPS Director's Order 12 Handbook) include: "conflict with an up-to-date and valid park plan, statement of purpose and significance, or other policy, such that a major change in the plan or policy would be needed to implement." The suggested alternative could also be seen as a variation on, Disallow the use of

Mechanical Fuel Treatments, which was included in *Alternatives Considered and Dismissed,* in the Draft YFMP/EIS.

The 31-inch tree size referenced in the comment is from the restoration target condition, which is based upon the management objective, "Manage ecosystems within the natural range of variability for plant community structure and fuel loads." This tree size is not an action per se; it relates to the project purpose and need. All alternatives should attempt to accomplish this objective. It should be noted, however, that the maximum size of tree to be cut in thinning operations under Alternative D was reduced in the Final YFMP/EIS to 20 inches. However, it is still the objective of the fire management program to achieve the target condition, through a combination of prescribed fire and thinning. We agree that, in the past, certain administrative factors have precluded a fuller use of prescribed fire. Increased budgets have resulted in more personnel, which has resulted in the undertaking of more complex projects, as well as in the ability to conduct fuel reduction activities year round.

Concern #68: The range of alternatives is limited, because the draft FMP/EIS should have considered an alternative that focused on approaches to protecting WUI and structures without fuel treatment.

Letter Number: 115

Comment: * INADEQUATE RANGE OF ALTERNATIVES. An example of a potential alternative that was not presented nor analyzed. It has been reported to us that in the early 1990s' or late 80s, in lower Yosemite, there was much success with saving some historic building-cabin(s), with a type of tent that inflated and sprayed with fire-retardant foam. While it would be a large financial investment to buy all those tents and foam, money would be saved with less personnel and fire trucks. Was this method evaluated? It could be a better method than clearing, which has its own problems with erosion, weeds, etc.

Response: The alternative suggested does not represent an alternative per se for managing fire to accomplish park fire and resource management objectives. It could certainly remain a tactical option for protecting structures. Application of foam to prevent combustion of many homes in a community would still require engines and personnel to apply foam, and depending on the speed of the fire, it may not be possible to apply foam safely. The reduction of fuels around communities increases the survivability of the building, even if engines are not present.

Alternatives

Concern #69: The National Park Service should adopt Alternative C over Alternatives B or D, because it is less aggressive and could be more easily modified to be less obtrusive/damaging.

Letters: 28, 46, 11, 48, 52, 82, 44, 50, 51, 45, 63, 55, 99, 3, 27, 93, 98, 94, 53, 97, 34, 36,

Letter Number: 11

Comment: It may also be important to note that the table on page 2-17 shows that the selection of Alternative C would result in "ecosystem restoration in 25 years," while the selection of Alternative D would result in "ecosystem restoration in

17.5 years." First, ecosystem restoration is an imprecise, relatively ambiguous measurement, and it is extremely questionable as to whether or not any target goals will be reached uniformly across treated acres. Second, to somehow calculate that it would take 7.5 years longer to use more natural treatments methods (prescribed fire) instead of aggressive mechanical treatments may be a reasonable, although debatable, calculation, but the public would assuredly choose to take a little longer and forego the logging of large trees in the Park.

Letter Number: 82

Comment: CRERC strongly supports the selection of a modified Alternative C, where the increased level of prescribed burning and a moderate level of mechanical treatments could be increased within a 300 ft. strip of buffer along structures, development, and private property. We believe that a modified Alternative C will have the strongest public support, will withstand legal challenge more than Alternative B or D, and will be the most likely to achieve fire and fuel goals with likely levels of funding from Congress.

Letter Number: 63

Comment: Alternative C - with some minor modifications - is the only acceptable action Alternative. The "Preferred Alternative" (D), which attempts to compromise between Alternatives B and C, still includes "Commercial Logging," which is inappropriate for a national park. The DFMP makes a deliberate and systematic effort to create the impression that selection of Alternative C is a prescription for disaster.

Response: The decision on the Yosemite Fire Management Plan/Environmental Impact Statement will be based upon several factors, including the program's purpose and need, its goals, objectives and criteria, and public comment. Aggressiveness per se is not a goal in the purpose and need, but the potential effects of adopting a longer duration, less aggressive approach are more negative than positive. There is a greater potential for failing to achieve the intended goals of the project because of the increasing potential for large, catastrophic fires with time. In the Final YFMP/EIS, modifications were made in the Alternatives to address public concern over the sizes and locations for tree thinning operations, but the timeframe remains the same; a larger part of the workload will be undertaken by prescribed fire, rather than mechanical, operations. Commercial logging is not an action proposed in any alternative.

Concern #70: The National Park Service should adopt either Alternative B or D, because Alternatives A and C are not aggressive enough and because the risk of undesirable, high-intensity fire is too great.

Letters: 25, 47, 13,

Letter Number: 25

Comment: Under option A, no action, we probably would never catch up with the backlog of areas needing burning. Under Option C, passive, we would take ten or more years to catch up. Both of these options increase the risk of undesirable, high-intensity wildfires. Therefore, I think that we should reject options A and C, and

select either B or D.

Letter Number: 47

Comment: A more realistic approach would include as much prescribed burning as possible, combined with more aggressive treatments. I advocate adopting a Modified Alternative B which states that aggressive action would be used until you reach certain previously defined benchmarks which accomplish the primary objectives and return the Park to safe and sustainable conditions. Then you would shift (with great fanfare, public participation, etc.) to Alternative D.

Letter Number: 13

Comment: While I feel the more aggressive approach of Alt. B is highly desirable for the western front of Yosemite NP, Alt. D- Multiple Approaches is my recommendation for the Preferred Alternative.

Response: The decision on the Yosemite Fire Management/Environmental Impact Statement will be based upon several factors, including the project's purpose and need, its goals, objectives and criteria, and public comment. Aggressiveness per se is not a factor in the purpose and need, but the potential effects of an alternative with a shorter duration, more aggressive approach are considered positive, in that there is a greater potential for achieving the intended goals of the project before there are additional occurrences of large, catastrophic fires.

Concern #71: The National Park Service should adopt Alternative B, because aggressive action is needed to restore natural conditions and reduce risks of catastrophic fire near WUI.

Letters: 57, 39, 85, 106, 132, 9, 129, 83, 81, 9,

Letter Number: 57

Comment: After reviewing the four alternatives I have decided that Alternative (Aggressive Action) is what is needed for the park. I have based my decision on four main points. First, the FRID is quite substantial in some areas. Aggressive action is needed to get these areas back to natural conditions. Second, the twenty year goal of Alternative D is too long a time to bring the forest back in line. The risk of a catastrophic fire in that time period is too great. Third, hiking experiences and scenic vistas are diminished by a thick under story which needs to be addressed as soon as possible in order to comply with the original purpose of the park. Fourth, original habitat needs to be restored so that the area brings the flora and fauna back into balance, which will accelerate the healing of the ecosystem.

Letter Number: 39

Comment: I support Alternative B - Aggressive Action. But even this falls short of the need I see at Yosemite.

Letter Number: 129

Comment: The Wawona Town Planning Advisory Committee has concluded that it is imperative to reduce fuels in and near Wawona and the rest of Yosemite Park in

the timeliest manner possible. Consequently, the committee fully endorses Alternative B - Aggressive Action.

Letter Number: 129

Comment: After reviewing all five alternatives, the County has determined that Alternative B Aggressive Action would be the preferred treatment for reducing the vegetative fuels in Yosemite National Park. In addition, the Wawona Town Planning Advisory Committee after receiving both a presentation and copies of the DYFMP also supports Alternative B - Aggressive Action Plan. Under Alternative B, aggressive techniques would be ued to reduce fuels in and near developed areas within a period of 5 years. The County believes this alternative produces the most beneficial results by reducing fuels and protecting people, homes, developed areas, valued resources, facilities, and utilities. Further, the County supports the physical removal of fuels in addition to the use of prescribed fire methods that were also described in this alternative. The presence of these techniques and treatments in this alternative provides for the greatest opportunity to achieve sustainable forest land management.

We hope you will consider these comments carefully and urge you to select Alternative B - Aggressive Action.

Response: The decision on the Yosemite Fire Management/Environmental Impact Statement will be based upon several factors, including the project's purpose and need, its goals, objectives and criteria, and public comment. Aggressiveness per se is not a factor in the purpose and need, but the potential effects of being aggressive are considered positive. However, there are also negative consequences associated with Alternative B that can be reduced and/or avoided by being more selective in the application of various treatments, including thinning. The immediate focus of the initial stages of the alternatives will be on the protection from wildland fire of the six WUI communities; the period to achieve the restoration of target conditions for forest restoration will be longer under A, C, and D than under B.

Concern #72: The National Park Service should not adopt any of the alternatives, because of the approach taken in the document.

Letters: 69, 66, 33, 60, 115, 36,

Letter Number: 60

Comment: THE FOUR ALTERNATIVE ALL HAVE TOO LIMITED A SCOPE AND ALL USE TOO MUCH FUELS TO IGNITE FIRES.

Response: The scope of the document was developed using Federal Fire Policy, NPS Director's Order 18, and Reference Manual 18 as guidance. Please see Chapter 1, *Purpose and Need*.

Concern #73: The National Park Service should adopt Alternative A, No Action.

Letters: 72, 4, 54

Letter Number: 4

Comment: How does the EPA arrive at Alternative A choice? Certainly they have done their own extensive studies, and why does Yosemite disagree with the study done by the EPA? What assumptions is the EPA making about Yosemite?

Response: Much good has been done in Yosemite over the years under the No Action Alternative. However, through monitoring and evaluation, much has also been learned about what is needed to refine and improve the program. This, combined with the policy changes that came about as a result of the 2001 Federal Fire Policy and National Fire Plan, led to the decision to revise the Yosemite Fire Management Plan. There is a need to build on the successes of the 1990 FMP with methods and objectives not envisioned at time. [It should be noted that the Environmental Protection Agency did not recommend the No Action alternative; the commenter was misinformed on this matter.]

Concern #74: The National Park Service should adopt a preferred alternative that restores natural processes.

Letters: 68, 93, 60, 74, 28, 27, 80,

Letter Number: 68

Comment: ...restoration of natural processes must be the preferred alternative, not manipulation attempting to restore the land to a concept of the mid-19th century. Refer to the 1980 General Management Plan.

Letter Number: 93

Comment: Please select an alternative that mimics natural processes--not one that relies on heavy, invasive

Letter Number: 119

Comment: THERE MUST BE NO INTERFERENCE WITH NATURAL PROCESSES. The main thrust of any plan should be to restore natural processes, of which wildfire is one. In my 68 years of experience with the forest of the Sierra Nevada, I have never known of a fire in native closed-canopy old-growth forest that has not been beneficial in the long run (as well as inevitable). It's the logged, dried-out, bulldozed places that burn devastatingly hot.

Response: We agree that fire is an extremely effective process in maintaining the ecosystems of the Sierra Nevada. In much of Yosemite (83%), natural fire processes are being used to maintain ecosystems. However, some parts of Yosemite (especially those along the western edge of the park) have progressed through succession (because of past fire suppression activities) to the point where fires burn with more intensity and severity than they did under natural conditions and processes. In 17% of the park, prescribed burning is needed to prevent deleterious effects, on a landscape scale, and to allow the eventual return of natural processes to much of the area. In wildland/urban interface, thinning and prescribed burning are needed to reduce risks and mimic fire. The 1980 General Management Plan recognizes this need.

Concern #75: The National Park Service should not adopt any alternative that proposes to thin vegetation/mechanically remove large trees/scrubs or use aggressive treatments.

Letters: 92, 121, 63, 117, 124

Letter Number: 92

Comment: I have a big problem with your Preferred Alternative, Alternative D - Multiple Action. I don't like logging or killing trees 16" dbh - 31.5" dbh. I also don't like helicopter and mechanical logging in National Parks like Yosemite.

Letter Number: 63

Comment: Given that the probability of a catastrophic wildfire event during the 25 year period of Alternative C is only 0.03%; and given that numerous scientific studies (including the 1999 GAO Report, the Forest Service 2000 Cohesive Strategy, and the PNW 2002 Science Update) have shown that removal of large, fire-resistant trees does not contribute to fuel reduction; and given that such software programs as "Behave" and "Farsite" can effectively predict fire behavior and consequences, thereby enabling identification of high-risk areas for preventive treatment; there appears to be no reason to select the more aggressive Alternative D; unless this selection is motivated by an intent to initiate commercial logging in national parks. Alternative C can be made acceptable by inclusion of statements to the effect that: No materials will be removed from the Park for the purposes of commercial end products; No mechanical equipment will go beyond the wilderness boundary OR reach beyond the boundary for the purpose of removing vegetation.

Response: For the Final YFMP/EIS, the Alternatives will be modified to change the size and location limits used for tree thinning operations, to make them more similar to the treatments used by the USFS under the Sierra Nevada Forest Plan Amendment. However, the restoration and maintenance targets will continue to be used as a tool, because they are based on data that help the program move toward restoring a more natural range of variability. It should be noted that BEHAVE and FARSITE are fire behavior and spread models; they do not model fire effects or ecosystem benefits. The FRID analysis used in the Draft and Final YFMP/EIS is a tool that can be used to identify high risk areas. [the draft YFMP/EIS neither intended nor stated a goal of supporting commercial logging. Nor did it state or imply that helicopter or heavy mechanical equipment would be used in wilderness for purposes of removing vegetation; in fact, the draft and final YFMP/EIS state that aggressive treatments would not be used in wilderness. Reaching over into the wilderness is also not allowed in the FEIS/FMP.]

Concern #76: The National Park Service should adopt Alternative D, the preferred alternative.

Letters: 24, 22, 37, 18, 16, 127, 135, 130, 13, 118, 141, 56, 91, 88,

Letter Number: 5

Comment: …please adjust the preferred alternative (Alternative D) so that only trees directly adjacent to development will be logged, and in no case (except for reasons of immediate hazard) any trees be removed that are larger than 20 inches in

diameter. Also, please make expanded use of prescribed burning as a management tool. This use of natural processes can provide a healthy forest without the use of heavy equipment to crush brush, chip fuels, or skid cut logs out of to the nearest roads, heavy equipment that causes damage to trees and terrain.

Letter Number: 24

Comment: Yosemite needs the flexibility to use each action and would be the best judge of which technique to use. Alternative D fills this requirement.

Letter Number: 18

Comment: After reviewing the draft of the new park fire management plan, I would like to add my support for it. It is long overdue that land owned by the government be managed in a responsible way, minimizing the damage to people and property that is caused by fires, while allowing the natural processed caused by fire to proceed. The reason that we have seen so many serious fires on federal property during the past few years is because the federal government did not properly manage their land and sometimes even prevented private property owners sometimes even prevented private property owners from properly protecting their land.

Letter Number: 135

Comment: We are concerned about the mechanical thinning and possible commercial uses of those trees, and suspect that the Park has been receiving similar comments from other members of the public. However, knowing some of the Park fire management staff and feeling confident in their competence and commitment to the values of the National Park Service, we are willing to support Alternative D, Multiple Action. This would be the best compromise between aggressive and passive actions, and would help achieve the goal of allowing the maximum use of wildland fire use for ecological restoration.

Letter Number: 118

Comment: The District is in agreement with the DFMP in providing an alternative that would encompass a multiple action scenario (Alternative D - Multiple Action). This alternative is consistent with the Smoke Management Program (SMP) adopted by the District on September 25, 2001, and the Smoke Management Guidelines for Agricultural and Prescribed Burning (title 17), which was amended and adopted on March 14, 2001, by the California Air Resources Board. These regulations are intended to "provide increased opportunities for prescribed burning and agricultural burning, while minimizing smoke impacts on the public." Title 17 and the District's SMP require that alternatives to burning be considered when developing smoke management plans for prescribed burns.

Letter Number: 141

Comment: Your proposals exhibit clear concern for the welfare of visitors, residents and the communities that are within and adjacent to Yosemite National Park. The proposals clearly establish a program to deal with the increasing problem of excessive fuel loading in the park and should be expanded to other wilderness

areas as well. By specifically identifying areas that would be thinned and treated to provide protection for recognized values (villages, sequoia groves, historic and cultural sites) you clearly show that very little land base would be subjected to the use of aggressive fuel reduction techniques. The Wildland Urban Interface maps make this very clear and it appears that these treatments only apply to developed areas as opposed to truly wild areas. It is my understanding that these truly wild areas would be left to natural process utilizing wildland fire and some prescribed fire where burn units have been identified. By using all of the tools, you can correctly apply the treatment to the location where work needs to be expedited to meet protection objectives. I fully support your preferred Alternative which allows for use of all treatments where the need is warranted.

Response: No response necessary.

Concern #77: The National Park Service should adopt Alternative D, the preferred alternative, but modified to reduce reliance on aggressive treatments over time.

Letters: 2, 78,

Letter Number: 2

Comment: Alternative D includes some of the more aggressive proposed fuel reduction techniques on a limited basis. The plan seems to suggest that these more aggressive techniques are included in Alternative D due to the urgency of the situation. Alternative D should include the clearly stated goal of bringing the areas subject to aggressive reduction techniques towards the natural fire regime condition and that upon achieving this status the subject areas will be treated with a much less aggressive fuels treatment

Response: The proposed action, Alternative D, was modified to limit aggressive treatments under the FEIS to the areas that are within ¼ mile of the six wildland/urban interface communities. It is the intent to use prescribed fire perpetually for ecosystem maintenance, following the initial mechanical thinning operation. Elsewhere in the park, and in particular the wilderness areas, prescribed and wildland fire are the only techniques used for ecosystem restoration and maintenance.

Concern #78: The National Park Service should not adopt Alternative D, the preferred alternative, because it is too aggressive or because its proposed treatments are unnecessary.

Letters: 48, 11, 133, 3, 34, 27, 128, 44, 97, 98, 94, 50,

Letter Number: 48

Comment: we realize the need for action to prevent the devastating fires we've seen over the past 15 years, (and still mourn the destruction of Foresta), but your Plan D is just too heavy-handed, ESPECIALLY the cutting of BIG TREES, and clearing closer than 300 feet from structures.

Letter Number: 11

Comment: The preferred alternative's polarizing approach to fire management is both unnecessary and unproductive. A more moderate approach that minimizes the most controversial treatments is far more likely to be successful in both achieving fuel reduction and in building public support for fuel management within the park.

Letter Number: 133

Comment: The language describing Alt. D is extremely broad, and opens the door to widespread logging in Yosemite. For example, in the Wildland/Urban Interface area of the Suppression Unit, "in areas close to development, feller-bunchers might be used to remove large and small trees…" DEIS, p. 2-39. Aside from the obvious horror of loggers operating feller-bunchers in Yosemite National Park, the text does not explain what "close to development" means. The purpose of this language is clearly geared toward protecting structures, but no limits are articulated. Is "close" 200 feet? 200 meter? 1 mile? The DEIS is totally open-ended in this regard, which opens the door to massive abuse. As fire scientist Jack Cohen's research has shown, the only way to protect structures is to reduce the flammability of those structures themselves and reduce brush within at most 100 to 200 feet from those structures. See "Reducing the Wildland Fire Threat to Homes: where and how much?", Jack D. Cohen, U.S. Forest Service, Research Physical Scientist, Fire Sciences Lab Rocky Mtn. Research Station (1999). There is NO scientific basis for hazardous fuels treatments more than 200 feet from structures ostensibly to protect those structures. Likewise, in the Non-Wildland/Urban Interface, Non-Wilderness area of the Suppression Unit, logging of large trees could occur supposedly to meet "Restoration Target conditions: or for "hazard tree removal. Timber sales would be used as the tool if it was deemed to be the most economical means - even if it wasn't the most effective means to reduce severe fire behavior. See DEIS, p. 2-40. Again, this language is fatally overboard and opens the door wide to abuse. In the Wildland/Urban Interface area of the Fire Use Unit, "aggressive actions" (i.e. logging) would be used "in limited instances along roads and utility corridors". DEIS, p 2-40. Again, what is "limited" and how close to roads does "along roads" mean? The same problem exists for the Non-Wildland/Urban Interface, Non-Wilderness area of the Fire Use Area. DEIS, p. 2-40 (i.e., logging could occur along roads and utility corridors, but there are no specific limits or standards).

Response: see response to Comment #77. Roadside thinning would be limited to 200' from the centerline along roads in the Suppression Unit. Thinning around the six WUI communities would be restricted to within ¼ mile of these communities, and in situations in this area where prescribed fire cannot be safely used as the initial tool for fuel reduction or restoration of target conditions.

Concern #79: The National Park Service should not adopt Alternative D, the preferred alternative, because it is not aggressive enough.

Letter Number: 47

Comment: I think Environmentally Preferred Alternative D is not aggressive enough, in

addition to being unrealistic in the predictions of how soon it will accomplish its goals

Response: Alternative D allows more time to achieve program objectives than does Alternative B, while allowing more aggressive techniques within ¼ mile of the six WUI communities than does Alternative C. We believe that Alternative D represents a good compromise between the immediate need to mitigate risk to WUI communities from wildland fire and the selection of several techniques to do this.

Concern #80: The National Park Service should not adopt Alternative D, the preferred alternative, because the risk of catastrophic fire is greatly over emphasized.

Letter Number: 63

Comment: In the 70 year period from 1930 to 200, there have been three catastrophic fires in the Park (A-Rock,
Steamboat, and Ackerson Complex). A-Rock and Steamboat should possibly be considered one fire event because they occurred simultaneously on the north and south sides of the Merced River respectively. It is conceivable that -- if these fires had occurred at different times -- sufficient resources could have been mobilized in each case, to reduce the acreage burned in either fire. The total number of fires in the Park in the 70 year period (including A-Rock, Steamboat, and Ackerson) was 4,034; of which 482 were prescribed burns, leaving 3,542 that were lightning or human caused. (See Table D-1, Attachment -- D.) Of these 3,542, 575 were Managed Natural Fires and 3 were unmanageable (catastrophic), leaving 2,964 that - without management activities - did not become catastrophic. These would be considered conforming to the Natural Fire Regime along with the Managed Natural Fires would have accomplished desired ecological objectives. The probability of a catastrophic fire during the 25-year period of Alternative C (Pcc) is:

$$Pcc = 3 X25/(3,543X70) = 0.000303 \text{ or } 0.0303 \text{ percent}$$

If A-Rock and Steamboat are considered a single event, Pcc becomes 0.0202%.

For the "Preferred Alternative" (D), the probability of catastrophic fire is:

$$Pcd = 3X15/(3,542X70) = 0.000181 \text{ or } 0.0181\%.$$

And the predicted size of such fires - for either Alternative - is the ratio of the acres burned in the three catastrophic fires (approximately 47000 +22,000 = 69,000) to the total acres burned in this interval (69,000 = 160,104) times the ratio of years these catastrophic fires burned (2) to the total period (70) times the potentially-burnable area of the park (forested = 626,383 acres). Thus the probability under Alternative C -- is:

Acat = 69,000X2X628,383/(229,104X70) = 5,407 acres.

Given the randomness of lightning or human ignitionss, there is no assurance that any of the Alternative will prevent a catastrophic wildland fire over the Alternative's periods; or even that such events will be prevented after completion of the terms. An ignition situation -- such as the Ackerson - where six lightning ignitions occurred within a 13 kilometer distance and almost simultaneously (when measured as fractions of the fire's duration), will not be manageable with the available resources, regardless of which Alternative is selected.

One may argue that the probabilities are higher than the above estimates because the fuel loads have increased over the period under consideration. This argument is not persuasive because increased fuel loads do not increase the probability of an unmanagable wildland fire. They only increase the severity if such an event occurs. However, a review of the fuel loads in Table D.1, Attachment D (file Attxl_D*/xls), indicates that the current fuel loads - except for the Whitebark pine/mountain hemlock and Giant sequoia/mixed conifer forests - do not exceed significantly the proposed target ranges Presumably, the Giant sequoia/mixed conifer forests (that are considered a highly valuable resource of the Park) will be scheduled for early treatment with prescribed fire; especially since these comprise such a small fraction (0.03%) of the Park area.

The small difference in probabilities of catastrophic fires (0.12%) between the Preferred and Passive Alternatives -- makes the arguments against Alternative C appear to border on hysteria.

Letter Number: 63

Comment: Furthermore, we believe the DFMP exaggerates vastly the risk catastrophic fires; in order to justify unnecessary and excessive mechanical thinning operations. We base this conclusion on data presented in the Draft Plan itself, information provided at the various workshops, and many scientific articles and reports. The DFMP also lacks essential data and analysis that would enable the reader to form a quantitatively accurate picture of current and proposed conditions and their associated risks. The DFMP fails to demonstrate that there is a high risk for catastrophic wildfire events. In fact, much of the substantive information in the document leads, to a conclusion that the majority of the Park displays a negligible risk. The document presumes the risk to be high as if it were a given--as self-evident as heliocentrism.

Response: An assessment of the probability for catastrophic fire would necessarily be multi-variate in nature, although the analysis above is an interesting exercise. We ask the respondent to recognize the fact that large, catastrophic fires have occurred only in the recent period, rather than scattered over the history of the park. This is not a coincidence. Conditions that now contribute to the increases in fire severity, spread and extreme behavior have changed over time,

and are less variable than they were under natural conditions. Increased fuel loads and changes in forest structure do increase the probability of a fire becoming unmanageable. Real time factors (weather, fuel moisture, availability of suppression resources, number of ignitions, and others) contribute to the complexity of managing fires, and when combined with the changes in fuel and forest conditions that have occurred over time, the potential for catastrophic fire has increased. To aid in responding to this need, the NPS and USGS completed the FRID analysis. Although not an analysis of the probability for catastrophic fire, it does help us target the areas where, potentially, the greatest changes have occurred, and wildfires would produce the most severe changes. We do not believe we are exaggerating the risks associated with these changes, and we believe that residents of WUI communities would agree with our assessment.

Concern #81: The FMP/EIS should include additional discussion of implementing Alternative D, the preferred alternative, under existing air quality constraints.

Letter Number: 130

Comment: The No Action alternative identifies past staffing levels and air quality issues as limiting constraints. The past program has averaged 1,472 acres of prescribed fire and 2,567 acres of managed wildland fire annually. The preferred Alternative D proposes to burn 1,817 acres through prescribed fire and 9,194 acres through managed wildfire. These are significant increases. The preferred alternative expects to increase air emissions by over 50%, yet the plan provides no discussion as to the removal of the currently limiting constraints. Air constraints may be the single most limiting factor that prevents enactment of this alternative. It warrants a thorough analysis.

Response: While it is true that in the past there have been significantly limiting constraints of budget and staffing, recent initiatives, direction and appropriations from Congress have removed many of these barriers. Staffing levels have increased, as has our ability to bring in outside resources from federal, state, local and private sources to assist with projects. As long as the staffing and budget support continues, there will be adequate personnel and equipment to do the work.

Air quality and the potential impacts to the airshed remain a concern. The local air districts, as well as the California Air Resources Board, have recognized the potential of these impacts as government agencies begin to increase their prescribed burn acreages. In response, Title 17, Smoke Management Guidelines for Agricultural and Prescribed Burning were revised to address this issue. Part of Title 17 requires communication between the burners and with air regulators to share airsheds and avoid impacts from simultaneous projects. It also has provided for more sophisticated forecasting of atmospheric conditions conducive to smoke dispersal, which will also help mitigate impacts. Better forecasting is expected to lead to the identification of more burn days.

In the past, most of the prescribed burning in Yosemite was largely concentrated in the fall, after the peak of fire season and before winter snows and rain. This was largely due to a reliance on seasonal staffing. With an increased permanent staff and the potential to share resources with other agencies or hire private contractors, it is now possible for burning to be conducted throughout the entire year. During the winter of 2002-2003, approximately 400 acres of piles were burned in the park. Much more burning will take place in the spring, when atmospheric

conditions for smoke dispersal are most favorable. Also, with an increased federal fire workforce, it will now be possible to conduct prescribed burns during the summer fire season. In summary, previously Yosemite was only able to conduct prescribed burning during the fall, or 25% of the year. Now, because of increases in staffing and better communication with other burners and air quality regulators, Yosemite may be able to utilize the entire 12 months in a year to accomplish treatment objectives.

Concern #82: Alternative D should use tree thinning only within the 300 foot buffer around structures and private property, and use more natural methods such as prescribed burning beyond the 300 ft. buffer.

Letter: 82, 45,

Letter Number: 82

Comment: Under the current preferred alternative, the Park would treat up to roughly 3,750 acres with the logging or removal of large trees. CSERC believes that the tree removal (20" dbh and less) should be tried on a limited acreage area in the 300' buffer around structures and private property, including also utility line corridors, and that once that work is completed, that a reassessment and reevaluation look to see if there is truly any need to expand the work. It is likely that alternative, more natural methods such as prescribed burning can easily be used to achieve fuel goals beyond the 300 feet buffer area.

Letter Number: 45

Comment: Although I know fire is an ever present danger and fuels need reducing, I can't see that logging the biggest trees and going on a rampage with heavy equipment to smash down smaller growth is the way to do it. The problem with Alternative D is that it could be mostly a "foot-in-the-door" for loggers to just get the nice big trees, and leave a mess of the rest. Also men on bulldozers are known in many landscapes to become all carried away with pushing down trees, scraping etc. which gets to be in excess of what is necessary and our parks, if nowhere else should be places to see natural areas not all torn up. I'm not sure about chainsaw use. I feel that would be acceptable as a temporary measure to quickly get small trees out of the urban interface if it were a temporary measure. And [let?] big, more fire-resistant trees more opened-up and widely spaced. But again, I'd have to suspect the proposed chainsaw use within Yosemite Park is part of a suspicious-looking proposal (D) which looks like it would open the door to a lot of landscape destruction in the name of fire fuel reduction

Response: The following revisions were made for the Final YFMP/EIS: Tree thinning activities will be restricted to six wildland urban interface communities and along roadside and utility corridors in the Suppression Unit. Within the ¼-mile inner defense zone around the edge of WUI, vegetation and fuels will be mechanically treated and then burned; prescribed fire may be the initial treatment method where safe and practical. The figure of 300’ may be workable in some

situations, but not in others, due to fuels and topography. In the outer defense zone, from ¼-mile up to 1-1/2-mile, vegetation and fuels will be burned, and thinned only if needed to accomplish objectives (forest target conditions), but only after subsequent NEPA analysis, public review, and compliance.

Concern #83: The FMP/EIS should include cost/benefit analysis for mechanical thinning operations.

Letters: 33, 34

Letter Number: 34

Comment: NEPA requires an objective economic analysis of alternatives considered. When an honest valuation of the cost of the impacts of mechanical manipulation of the National Park forest lands is weighed against the benefits in terms of wood fiber recovery and expedited achievement of the target stand conditions the decision will not be in favor of this alternative.

Response: Generally, costs for fire management activities in Yosemite are as follows:

Mechanical thinning; small diameter trees/dead and down	$650-$2800 acre*
Mechanical thin large diameter logs	$1000 per acre
Pile burning (from mechanical thinning)	$100 per acre
Chipping small diameter trees/dead and down	$200 per acre
Small (less than 100 acres) WUI prescribed burns	$350-$700 per acre
Small non-WUI prescribed burns	$250 per acre
Large non-WUI prescribed burns	$100-$200 per acre
Large WUI prescribed burns (over 100 acres)	$200-$500 per acre
Wildland Fire Use	$50-$600 per acre**
Fire Suppression	$400-$6000/ acre**

*Cost is dependent on density of fuels; accessibility; and workforce being utilized. For an average, figure $1500 per acre for mechanical thinning. Note this does not include disposal (either by pile burning or chipping).

**Cost varies by location and size of fire. Generally, the more acres of a given fire, the lower the cost.

Anecdotally, during the 2002 Yosemite Fire Season, the following cost figures were recorded for projects and fire incidents:

Mechanical Thinning	Yosemite West	40 acres@$2800/acre= $112,000
Small WUI Prescribed Burn	Studhorse 11	28 acres @$450/acre = $12,600
Large non-WUI Prescribed Burn	Gin Flat	3517 acres@$145/acre = $511,000
Wildland Fire Use	Wolf Fire	1814 acres @$112/acre = $203,168
Fire Suppression	Liberty Fire	101 acres @ $990/acre = $100,000

Cost of Implementation

Concern #84: The National Park Service should not consider commercial incentives as a funding mechanism.

Letters: 43, 41, 87,

Letter Number: 87

Comment: Controlled burns and selective cutting and burning of very small trees and brush in the highest risk areas will be expensive but in the long run may cost less than putting out a major fire. Using a park resource (medium size and old growth trees) as a funding source to resolve this problem is simply unacceptable. A solution must be found without involving commercial timber interests or other methods requiring product removal from national park lands.

Response: The DEIS does not envision selling or exchanging wood products or logs for fuel management funding or services. The DEIS does propose using contractors to assist in fuel removal through mechanical thinning or prescribed fire, but woody material would not be sold to provide funding for the fuel management program, or any NPS program.

Concern #85: The National Park Service should include more information on the cost of implementing each of the alternatives.

Letter Number: 4

Comment: In reviewing the first few chapters in depth, and then skimming the rest and the Table of Contents I do not see any financial or fiscal impact in the report for the various alternatives A-D. This is a crucial element missing from the various choices. I can surmise on my own that Alternative A, the least costly, Alternative B, the most costly, Alternative C, a little more than Alternative A in cost and Alternative D, a little less costly in compared to Alternative B. Is this correct? However the actual numbers could be preferable. Also knowing where the money comes from would help as well.

Response: See response to Concern #83 for additional information regarding treatment costs. In general, the following per acre estimates* are used for fire management activities:

Mechanical Thinning	$1500 per acre
Mechanical thin of hazard trees/logs	$1000 per acre
Small WUI Prescribed Burn	$500 per acre
Large WUI Prescribed Burn	$350 per acre
Large non-WUI Prescribed Burn	$200 per acre

Wildland Fire Use	$150 per acre
Fire Suppression	$1000 per acre

*Estimates are derived from average costs of Yosemite fire management and forestry projects during the last three years and are used for budget submission purposes. Actual costs of individual projects may vary substantially either positive or negative from estimates.

Using the above estimates and Table 2.5 from the Draft FMP/EIS, the costs for each alternative is as follows:

Alternative A (Will not accomplish Park Objectives)

Prescribed Burning	1472 acres x $350 =	$515,200
Mechanical Thinning	150 acres x $1500 =	$225,000
Wildland Fire Use	2567 acres x $200 =	$513,400
Fire Suppression	5760 acres x $1000 =	$5,760,000
	TOTAL PER YEAR	$6,811,100

Alternative B (Accomplish objectives in 12.5 years)

Prescribed Burning	7696 acres x $350 =	$2,693,600
Mechanical Thinning	1533 acres x $1500 =	$2,329,500
Wildland Fire Use	2567 acres x $200 =	$513,400
Fire Suppression	5760 acres x $1000 =	$5,760,000
	TOTAL PER YEAR	$11,296,500

Alternative C (Accomplish objectives in 25 years)

Prescribed Burning	3848 acres x $350 =	$1,346,800
Mechanical Thinning	766 acres x $1500 =	$1,149,000
Wildland Fire Use	2567 acres x $200 =	$513,400
Fire Suppression	5760 acres x $1000 =	$5,760,000
	TOTAL PER YEAR	$8,769,200

Alternative D (Accomplish objectives in 17.5 years)

Prescribed Burning	5505 acres x $350 =	$1,926,750
Mechanical Thinning	1095 acres x $1500 =	$1,642,500
Wildland Fire Use	2567 acres x $200 =	$513,400
Fire Suppression	5760 acres x $1000 =	$5,760,000
	TOTAL PER YEAR	$9,842,650

The costs and acreage for Wildland Fire Use and Fire Suppression were kept constant through all four alternatives due to the uncertainty and unpredictability of these events. Acreage estimates for prescribed burning were derived from taking an average of the maximum and median FRID values on Table 2.5. Mechanical thinning acreages were taken directly from Table 2.5.

Funding for fire management activities is received from the National Park Service Fire Management Program Center in Boise, ID. Annual funding for each category is largely dependent

on Congressional appropriations and can fluctuate. Current emphasis within the federal government is on proactive treatment of fuels rather than reactive fire suppression, especially around wildland urban interface (WUI) areas. This emphasis reflects an increased understanding among researchers and fire managers that fuels treatment will greatly assist in reducing losses due to large, unplanned, catastrophic fires.

The funding Yosemite receives for fire management activities is separate from the normal Park operations funding; an increase or decrease in fire management funding would not impact normal park operations, though it would effect attainment of Park fire-related resource objectives, human safety, property (both public and private), and overall health of the forests.

Mitigations

Concern #86: The National Park Service should employ cool fires and wood harvest to mitigate air quality impacts.

Letter Number: 70

Comment: Cool fires may offer the greatest mitigation potential. You've stated that cooler fires emit less NOx and I presume also less methane (which is 21 times more potent than CO2). Cooler fires mean mostly prescribed burns in shoulder seasons when vegetation is not too dry. Repeated prescribed burns might then be required to achieve your objectives, but the likelihood of inadvertent stand-kills would likewise be reduced. Far more acres would be treated by prescribed burns, far fewer burned by managed wildland fire. Small and slow managed wildland fires would be tolerable; vigorous ones would not.

Letter Number::70

Comment: The next greatest mitigation in terms of potential significance may be harvesting, sequestering carbon by using wood for lumber or pulp, or burning wood productively in lieu of fossil fuel. Alternatives B and D contemplate some cutting, but usually for controlling incineration - not for sequestration or for offsetting fossil fuel use. Harvesting can be controlled; most desired trees can be saved; roadside vegetation can be protected. Harvesting won't be pretty, but I don't believe you offer a fully thought-out alternative. Prescribed burns are generally less selective; one roadside is inevitably marred if the roadbed serves as a fuel break. Some of your early prescribed burns along the Big Oak Flat Road disfigured the roadside, but they must have been too cautious as they failed to protect even the largest trees from the subsequent A-Rock Fire. In some areas, a single carefully-controlled harvest could set the stage for subsequent prescribed burns. In some of the most productive forest, repeated harvesting for fuel load maintenance may be environmentally superior. Would that too greatly compromise NPS values? Quite possibly. Perhaps it was naïve to include within YNP its western fringe; fuel accumulation and global warming were not then issues. These areas were included primarily to protect scenery, wintering wildlife and some magnificent trees. These objectives could be achieved outside the Park with greater flexibility and a less compromised NPS ethic. Perhaps a different administrative designation would better suit the South Fork Merced watershed as well as much of the lower montane forest and lands to the west that lie well back

from the Tuolumne and Merced Gorges.

Response: Cool fires and hand thinning have accomplished some of the Park's objectives of hazard fuel reduction and ecosystem restoration and will continue to be used where appropriate. In some cases, such as Sequoia regeneration, a hot fire may be needed to open the canopy and prepare a proper seedbed conducive to seedling germination. In other situations, too much moisture in the litter layer and live fuels will not support flaming combustion, and result in a fire that smolders and smokes for days on end. The fuel and weather prescriptions under which prescribed burns are conducted have a wide range to give fire managers the opportunity to meet the project objectives while still retaining control of the fire.

Concern #87: The FMP/EIS should include the costs and impacts of mitigations measures to control non-native plants.

Letter Number: 70

Comment: 2-47: Since you propose to create widespread opportunities for non-native plants to colonize, please describe in some detail the "mitigation measures" you allude to, their impacts and cost, and the likelihood of their being implemented on the scale of the groundcover removal you propose to undertake.

Response: Potential impacts of non-native plants are considered in pre-burn planning. Costs for control of fire related exotic species are developed on a burn unit by burn unit basis, following a post-fire evaluation. At this time, many of the prescribed fires at Yosemite are in areas with relatively small invasive species issues. Plots will be placed in areas that are mechanically treated to provide early detection of invasive plants. Mitigation measures proposed by the U.S. Fish and Wildland Service will also be included in the FEIS.

Concern #88: The FMP/EIS should recognize the need for debris flow retention structures and other mitigation, following catastrophic fires like the A-Rock.

Letter Number: 1

Comment: …issue that should be raised in this Environmental Impact Statement is the feasibility of mitigation measures that can be utilized to minimize potential damage from debris flows following fires. For example, following the August 1990 Arch Rock (A-Rock) fire, debris-flow retention structures were constructed and successfully employed to protect housing areas in El Portal at the base of the severely burned watersheds. Assessments of the potential for fire-induced debris flows and plans for mitigation measures against debris flows are becoming a more common action following many fires on Federal lands. In addition, the USGS has recently identified the subject of fire-related debris flows as a topic of increased research priority in its Landslide Hazards Reduction Program.

Response: This is a very good comment. In the Final YVP/EIS, a discussion will be added to Chapter 2, under *Actions Common to all Action Alternatives, Mitigation Measures*, to describe Burned Area Emergency Rehabilitation (BAER) work that may be needed following catastrophic fires. BAER team objectives are to: 1) Determine if an emergency condition exists after a fire; 2) Alleviate emergency conditions to help stabilize soil; control water, sediment and debris movement; prevent impairment of ecosystems; mitigate significant threats to health, safety, life, property and downstream values at risk; and 3) Monitor the implementation and effectiveness of emergency treatments. The added discussion will indicate that assessments of the potential for fire-induced debris flows will be completed and, as needed, debris-flow retention structures will be constructed to protect watershed values and structures.

Park Resources

Concern #89: The draft FMP/EIS should describe direct and cumulative impacts of the proposal.

Letter Number: 15

Comment: The potential direct and cumulative impacts of this proposal should be discussed.

Response: Please see Chapter IV, *Environmental Consequences*.

Concern #90: The National Park Service should adopt a management option that does not result in landscape devastation and risk unintended ecosystem consequences.

Letter: 45, 115, 72,

Letter Number: 45

Comment: Our parks are the only places left where natural landscapes may still be maintained. Although fire safety is a difficult issue for everyone, if at all possible a management option must be chosen that does not give [?] [?] to unnecessary levels of landscape devastation.

Letter Number: 115

Comment: Any fire management actions or treatments taken now in Yosemite will affect the forests, the meadows and the ecology for decades and in many cases centuries. These actions can drastically change the ecosystem trajectory of the areas. This plan calls for major manipulation of the ecosystems in Yosemite carrying with it major risks of unintended consequences. The Park Service's Fire Management Plan for Yosemite could lead to more, not less "catastrophic" fires. It could lead to a shorter, rather than a longer "fire return time."

Response: This concern mirrors the ecological intent of the plan. During the process of developing alternatives and evaluating their environmental consequences, this idea was used. We believe that the modified Alternative D is the best balance to achieve program objectives while avoiding undesirable environmental consequences.

Concern #91: The National Park Service should use the impact analyses (in Chapter 3 and 4) as a focus for improving and correcting the management plan, and identifying priorities for protecting species.

Letter Number: 130

Comment: The Alternatives should be developed to correct the areas identified that under the current management program will have a major impact. Those areas include wildlife in general, the California spotted owl, the pacific fisher, air quality, archaeology, cultural landscape resources and noise. The effects on old growth are not evaluated but should be added. It is interesting that old growth and wildlife, specifically the spotted owl, has been used as the principle reason to change forest management practices over the last decade, yet the park management plan does not acknowledge these species as a priority to protect. Apparently it is only important enough to protect wildlife from people who could harass, but not from wildfire that could kill. We believe if these species are important enough to devastate communities they are important enough to include as a priority to protect from wildfire.

Response: This is a constructive suggestion, and, indeed, the process of writing the draft YFMP/EIS was an iterative one that led to many modifications (prior to the plan's release). It should also be noted that spotted owl and other special status species were addressed individually in the draft and final YFMP/EIS. However, in the Final YFMP/EIS, mitigations specific to special status species will be emphasized in *Mitigation Measures*, under *Actions Common to All Action Alternatives*, in Chapter 2, and in support of a Biological Opinion issued by the U.S. Fish and Wildlife Service involving sensitive species.

Concern #92: The Bibliography repeats and/or wrongly attributes one piece of research.

Letter: 135, 70

Letter Number: 70

Comment: 3-2: I couldn't find a list of references that included U.C. Davis, 1996b. Nor could I find other "Affected Environment" references.

Letter Number: 135

Comment: James Agee[1]s "Fire Ecology of Pacific Northwest Forests" was inadvertently repeated and wrongly attributed to Kat Anderson in the References section in Appendix One.

Response: There are several errors in the Bibliography of the DEIS that will be corrected in the final EIS.

Concern #93: The FMP/EIS should include more analysis as to why large trees would need to be logged.

Letter: 11, 133, 114, 117,

Letter Number: 11

Comment: There also needs to be a far greater analysis as to why any medium to large trees would be logged at all for fuel reduction purposes.

Letter Number: 133

Comment: G) The DEIS (p. 2-25) uses the 31"dbh size because it states that these are tree likely to have been established in the "era of fire exclusion:. This, again, is historically weak. To equate any fire exclusion activities in the 19th century with the post-WWII era of modern fire suppression is ludicrous. Indeed, it is even a stretch to equate the extent and magnitude of fire suppression in the early 20th century with the era of modern fire suppression after WWII. Many areas of the Park may never have been affected by fire suppression. And, most of the areas that have been affected significantly are more likely to have been thus affected in the more recent ear, producing a more dense undergrowth as opposed to a more dense overstory. Further, the reference to trees 31" dbh tacitly, and incorrectly, assumes that fires would have generally killed most of these trees AND that fire suppression efforts were generally successful in stopping fires - both of which are likely to be faulty assumptions, at least in a substantial part.

Response: The DEIS describes the process by which the influence of fire suppression has affected forest demography. While the degree to which fire suppression affected forest demography around the park is debatable, the influence and effectiveness of fire suppression is logically more pronounced near the wildland urban interface communities of Yosemite. Trees in the smaller size classes (less than 20” in diameter) are overrepresented relative to more natural conditions, and should be thinned to restore and maintain these conditions. In most areas of the park, this thinning will be accomplished through the use of natural and prescribed fire. In a few areas adjacent to wildland urban interface communities, in which the use of fire is impractical because of safety issues, mechanical thinning will be employed initially as a surrogate for fire. Following this thinning, prescribed and natural fire will be used to maintain forest demographic characteristics within target conditions as much as possible.

Concern #94: The FMP/EIS should address how climate change will affect park ecosystems, ecotypes, climate, etc.

Letter: 70, 8,

Letter Number: 70

Comment: Climate changes over the centuries. The pre-1850 climate was significantly cooler than at present. Peak snowpack and runoff now come nearly a month earlier. Mid-elevation snowfed forests (lower and upper montane forests) now experience a ~1 month longer (and probably hotter) summer drought. This alone would make late-season fires more intense. It should also lead ecotypes to migrate to elevations more than a thousand feet higher. How much of Yosemite's snowfed forests is now relic, still hanging on, but likely to be replaced by chaparral once burned severely?

Response: The effects of climate change on the Sierra Nevada forests and fire is poorly understood. The park is participating in ongoing research through the Sierra Nevada global change research program to better understand potential changes in vegetation, climate and fire. When more results come from this work it will be incorporated to our plan through the adaptive management process. Nonetheless, unnaturally severe wildfires due to unnaturally high amounts of fuel would likely worsen the effects of global warming on park ecosystems.

Concern #95: The draft FMP/EIS may underestimate tree density under pre-1860 conditions.

Letter Number: 70

Comment: I suspect that your 31.5" diameter breast height criterion is both flawed and biased. First, only a fraction of the pre-1860 trees remain in place, for trees die, fall, and rot. Second, did not both Indians and European settlers down trees for lumber and firewood? Describe how your criterion accounts for these processes. If it doesn't, it probably underestimates tree density under pre-1860 Indian influence. As for natural density, I submit that we have no basis.

Response: The tree densities come from a combination of actual plot data and discussions among several research scientists. It is possible that target densities for trees could be underestimates, and as a result, thinning will be done to achieve only the higher end of the range of target densities. The park has funding for two different research studies that will give even better estimates. One of the studies will reexamine forest plots installed in 1911. However, it is likely that the combination of soil disturbance caused by historic logging in the Valley, changes in meadow hydrology, and the suppression of fires has resulted in a dense, second growth forest without precedent.

Concern #96: The draft FMP/EIS may overemphasize areas that have missed more than 3 fire events. The draft FMP/EIS may overemphasize the significance of missed fire return intervals.

Letter: 70, 82

Letter Number: 70

Comment: Map 2-4 Median Fire Return Interval Departure (MFRID): If you depict separately the 0-1 MFRID, it will become readily apparent that much (~1/2) of the fire suppression zone has burned more recently than 1 fire return interval. This is the dominant situation in western YNP north of Yosemite West. Distinctly less acreage has avoided fire for more than 3 intervals. Were it not for your predisposition to eradicate all environments that have survived more than 3 MFRIs, the immediate needs for vegetation management would be rather local.

Letter Number: 82

Comment: The assessment of risk in the DEIS is based on the departure from the natural fire return interval - the number of fires mixed. This makes no sense, because one stand-replacing fire, such as the A-Rock fire, may have altered fuels and ecological character of the site far more than numerous lower intensity fires. Risk should be based on existing conditions… not how many natural fires "might" have burned through based on extrapolating past fire return interval patterns.

Response: See the response to Concern #80. We agree that resetting FRID to 1 after an areas burns in simplistic, and is only one step in determining the need, if any, for additional hazard reduction treatments, or if the area can be moved from the Suppression Unit to the Fire Use Unit. On the ground monitoring of postfire fuels and vegetation recovery will determine the postfire FRID, and the need, if any for further application of prescribed fire to mitigate fire risk. Much of the A-Rock fire area was converted from forest to brush, which presents a new fire management issue. In this area, fire suppression may be needed, rather than prescribed fire, to allow an opportunity for the chaparral to succeed to forest. The fire cycle for a FRID = 1 in grass ecosystems is much shorter than a FRID = 1 in mixed conifer; too short a fire cycle may eliminate more natural vegetation types in favor of exotic ones. Therefore, the FRID is only one consideration in fire management decisions.

Concern #97: The FMP/EIS should explain how the FRID analysis was ascertained, and how anthropogenic influences are considered.

Letter Number: 70

Comment: Though fire return intervals (FRIs) are central to your proposal, you don't explain how they were ascertained. Those for redwood groves in the Southern Sierra seem credible for ground-level fires, for they are based on tree-ring correlations of repeated cycles of burning and re-growth into open fire scars. Such scaring is common for redwood and incense cedar, but less prevalent among other species. This leaves me skeptical. How were FRIs established for the other vegetation types? How credible are they? Are the maximum FRIs real or do they span a data gap where no trace of fire has been found? If the latter, both the maximum and median FRIs are too large. Why don't your FRIs reflect Anthropogenic influence? Why, for example, is the median FRI for foothill chaparral (which has evolved to recover quickly from fire) roughly an order of magnitude longer than the FRIs montane meadows or ponderosa pine forests? If natural fires are from lightning, why have montane meadows burned more frequently than the surrounding forest (where lightning should have struck)?

Response: A description of Fire Return Interval Departure (FRID) and all of the fire return intervals chosen for the analysis is found in Chapter 2, pages 2-5 thru 2-14. The fire return interval (FRI) chosen for the analysis is derived from published literature, fire histories, and the best estimates available for the park. Additional fire history research efforts are underway.

Anthropogenic influences are considered in some of the FRI chosen, such as for Montane meadows. This range represents the amount of time between burns conducted by the Miwok as well as other tribes. The relative contribution, by vegetation type, of ignitions from lightning vs. ignitions by Native Americans, is difficult to ascertain, but information on this issue will be applied to calculation of FRI as it is made available through research. The target vegetation conditions were produced by a range of fire histories and mixtures of Native American and lightning ignitions; the prescribed fire program does not attempt to restore one ignition type vs. another, but rather re-establish a range of forest target conditions.

Concern #98: The National Park Service should use satellite maps in its annual planning and interagency coordination activities.

Letter Number: 111

Comment: The use of satellite maps both of the park and the surrounding forests taken annually in the spring and fall of each year should become part of your over all plan. These map can easily be layer into the GIS format that you are using to show you damage from the preceding winter, to help layout plans for both fire and maintenance project for the coming summer and to inventory the vegetation types and growth. The late fall photos will show you the back wilderness areas that have burned and the progress of your controlled burns in these areas. These maps can also be used to help support agreements with other agencies and coordinate cooperative work projects.

Response: satellite imagery is a vital part of the fire management program. Fire behavior models use vegetation maps and fuel maps to enable managers to predict the direction and characteristics of fire. Relative Greenness images show managers whether areas are relatively more moist or more dry compared with surrounding areas, and therefore assists in the development of fire management decisions and tactics. The FRID maps were developed from satellite imagery.

Concern #99: The FMP/EIS should include more analysis of the potential for debris flow and rockfall related hazards following high-intensity fires.

Letter: 1, 70

Letter Number: 1

Comment: …debris flows can result from severe rainfall events after highly intense fires, particularly where hydrophobic soil conditions have developed from the burning of organic compounds. This subject is briefly mentioned in this document on pages 3-37 and 3-38. However, the relative degree of hazard and potential impacts from debris flows subsequent to high intensity fires is not adequately addressed. For example, the statement (p. 3-37) High-intensity fire may also create the conditions for shallow debris flows by itself does not adequately address the hazards posed by the possible cumulative effect of many of these shallow debris flows coalescing within a channel to form a rapidly moving, high debris-flow front.

Letter Number: 70

Comment: On talus slopes (such as the Rockslides), the visual impact will be severe for several years. Loss of cover will facilitate a washing of soil particles deeper into the talus. Surface seedbed will be lost, but subsurface moisture retention capacity will rise. Where fire significantly reduces oak cover, there may be a small increase in rockfall hazard (by greater speed and travel farther beyond the talus base).

Response: We agree; the intent was to describe the general influence of fires of unnaturally high severity on soil stability. Burned Area Emergency Rehabilitation work, such as that done after the 1990 A-Rock wildfire, included a significant amount of erosion control measures. The cost of such work has also contributed to the rising cost of fire suppression nationally.

Concern #100: The National Park Service should not set any more fires until more research is done.

Letter Number: 138

Comment: I do not believe any more fires should be set in Yosemite until more research comes in.

Letter Number: 138

Comment: I stand by my Scoping Comments of April 30, 2001. You have not addressed the natural fire frequency in Yosemite National Park, nor answered the question of whether there was ever a natural fire in Yosemite Valley.

Recent articles and even you have claimed that there is much to learn about the use of fire. Will you continue to lay waste to Yosemite's forests and destroy the habitat of even rarer birds and animals while you learn if this is the right thing to do? Your map, though the detail is vague as usual, shows that you have burned virtually the entire Yosemite Valley since 1970. Shame on you.

Response: Yosemite National Park has been doing research on the effects of fire and fire exclusion since the late 1950s. There has been ongoing research and monitoring since the early 1970s. All of this data are used to help modify and refine the current program; the common term for this type of learning is Adaptive Management. We will never have 'all' the answers, but by using current and past research and monitoring, we move forward with the best science based program possible.

Adaptive management is now widely practiced. It is a common sense approach to learning by doing. Organizations or programs can take a conservative approach to filling information gaps through study and hypothesis testing on a limited scale. The lessons learned are then adopted and refined. Adaptive management can be a useful tool to an organization that wants to learn and respond to evolving needs and issues. The prescribed fire program is also supported by a fire effects monitoring program, which has been tracking the effects of the fires since the 1970's. Data is examined by scientists, ecologists, and biologists; no reasons have emerged to suggest that the effects of the program are not meeting the overall goal of the restoration of the natural ecological influence of fire on fire-dependent park ecosystems.

Concern #101: The FMP/EIS should write the equation for FRID in the simplest form.

Letter Number: 63

Comment: What is the purpose for writing the equation for the FRID using absolute value notation:

"FRID = Fire Return Interval -- (Current Year -- Year Last Burned)"

Fire Return Interval

instead of the simpler form:

FRID = Current Year -- Year Last Burned -- Fire Return Interval ?

Fire Return Interval

Response: The narrative describing the formula has been clarified to note that absolute value notation is used.

Concern #102: The Fire Management Plan does not adequately address the influence of Native American burning on Yosemite.

Letter: 130, 113, 61, 115,

Letter Number: 130

Comment: Fire, ignited by Native Americans, is acknowledged throughout the report but does not appear to be seriously factored into the restoration goals. The consistent message is to return fire to its natural role. It is unclear whether the Park Service includes Native American ignited fires in its analysis of "natural" role although it is included in its definition in Chapter 1. Numerous subsequent statements question its inclusion. For example: the first sentence under Need for the Plan appears to exclude Native American fire by stating, "Since 1968, National Park Service policy has been to allow natural processes to occur" but obviously have not replicated the Native American use of fire. The Goals and Objectives section includes, "a crucial goal of Yosemite's is to restore or maintain natural fire regimes so the ecosystems can function essentially unimpaired by human interference." "Naturally ignited fire is a process that is part of many of the natural systems that are being sustained in parks. Human-ignited fires often cause the unnatural destruction of park natural resources." Finally, an objective of the Park General Plan is to "restore altered ecosystems as nearly as possible to conditions they would be in today had natural ecological processes not been disturbed." The forests in California have not been without human interference for 12,000 years. Unless it is included, there will continue to be a disconnect between the condition that existed prior to European settlement and the natural forest controlled only by forces of nature. As indicated in the report, Native Americans were partners with nature in the management of the Park for 12,000 years. The combination of natural fire occurrences and Native American ignited fires created the baseline for Yosemite. Failure to include the role of Native Americans in the restoration of Yosemite will prevent a recreation and maintenance of the historical condition. Elimination of fire suppression will allow natural fires to fully perform its historic contribution but only partially achieve the desired condition. As indicated in Chapter 3, natural fire occurrences over the last 70 years will not produce the historical fire return interval. The restoration of the partnership of natural fires and active management is necessary

and must be acknowledged as the "natural" condition.

Much of the fire plan is based upon historical burning cycles. Studies in the Klamath indicate that cool fires frequently do not leave evidence on tree rings. Archeology studies in the Sierra indicate fires ignited by Native American were an annual occasion. The light fuels may have limited the extent of the fires and only occasionally produced enough heat to char trees. The possibility of more frequent fires should be factored into the historical perspective that serves as the foundation for this plan.

Response: We agree that certain areas of the park, and in particular Yosemite Valley, were influenced by Native American ignitions. In other portions of the park, there appears to be ample lightning activity to account for historic fire frequencies. It is not an objective per se to replicate Native American burning practices, results, or purposes. However, to the degree that the historic range of target conditions which the FMP/DEIS seeks to recreate was maintained by Native American burning practices, then the use of prescribed fire captures some of this influence.

Concern #103: The FRID analysis in the draft FMP/EIS should be revised and/or clarified.

Letter: 63, 70,

Letter Number: 63

Comment: We agree that the FRID can be a useful criterion for determining priority of treatments, particularly when the maximum FRID is used as in Map 2-5. Based on the FRI values provided on Map 2-2 and the acreages in Table 3.1, the Parkwide Average Median FRI is 60.3 and the Average Maximum FRI is 144.2. [See Revised Table 3.1 and subsequent calculations -- Attachment -- B (file Attxl_B.xls.)]

FRI (max)/FRI (med) = 2.39

Thus, FRID, for the areas shown in red on Map 2-5, would be >=5x2.39 >=12 when referred to the Median FRI. However, we are not persuaded that the probability for catastrophic fire events is solely dependent on the "Median" or "Maximum Fire Return Interval Departures" nor are these departures solely dependent on "Vegetation Type," without consideration for elevation, slope and aspect, lightning strike density, -- as implied by the data on Map 2-2.

We disagree completely with the assignment of "0 years" to areas of rock and water. This implies that these areas burn almost continuously -- or at less than at 6 month intervals -- as well as resulting in a mathematically unacceptable condition -- division by zero. For consistency, the appropriate figures would be very large numbers -- something like >10 (to the 7th) or >10 (to the 8th) years.

Who knows? There may have been forests that burned in these areas before the Sierra Nevada uplifted.

Letter Number: 70

Comment: 3-14: The last two paragraphs under Ponderosa pine/mixed conifer forest have been made confusing by inclusion of much non-comparable data and exclusion of critical data. Of 33,998 acres, 19,626 acres have burned since xxxx (not 1930, for 10,976 acres are ascribed to prescribed burns)? So you are anxious to "treat" the ~14,400 acres (42%) that have not burned since xxxx. If xxxx is 1972, the de facto fire rotation since then has been 52 years. 3-15: 12,169 acres (36%) haven't burned since 1930. Incidentally, "12,169 acres have missed up to 11 maximum return intervals" is incorrect, for "up to" means "less than". All 33, 846 acres have missed 0 – 11 intervals.

Letter Number: 70

Comment: To reduce the propensity for catastrophic fire, you generally propose to burn all areas that have missed more than three FRIs. If pursued vigorously, this would reduce diversity by eliminating long unburned, very late succession forests. Why is it important to eradicate succession? Leaving some stands unburned would not greatly compromise your overall objective.

Response: See response to Concerns #96 and #97. The fire return interval for water and rock is listed at zero since these areas won't burn. While the concern expressed about removal of late successional forests is noted, it is unlikely that this would happen. Fires rarely burn everything, prescribed fire and wildland fire use in particular leave a patchy mosaic of burned and unburned patches. The late successional forests are more at risk from catastrophic wildfire, which will totally change their forest structure and character. Forests which have a naturally long fire cycle still have a low FRID, which is the case in forests in the Fire Use Unit. The high FRID merely indicates which areas in the park have missed several natural fire cycles, and are therefore most at risk from an unnaturally intense wildfire. It does not mean that forests that have naturally long fire-free intervals need to be artificially burned on shorter rotations.

Concern #104: The NPS should clarify the basis for the assertion that .2.4% of the park burned yearly, on average.

Letter Number: 70

Comment: 1-4: What is basis for assertion that 2.4% of Parks burnable vegetation have burned yearly, on average?

Response: This percentage was calculated by taking the acreage of each vegetation type and dividing it by the maximum fire return interval for the type. This calculation gives us the most conservative estimate of how many acres burned annually. It is likely in most years before fire exclusion a larger percentage of the park would have burned. It is also possible that in some years less would have burned, depending on annual precipitation patterns, for example.

Concern #105: The FMP/EIS should provide information on the annual accumulation of fuel, and the affects of forecasted removal on same.

Letter Number: 81

Comment: 1) It is incomprehensible that a fire management plan can be designed for removal of fuels in the Park without first quantifying the magnitude of the problem. Nowhere in the plan is there any quantification of the tonnage of cellulose (fuel) that is being added to Yosemite's forestlands on an annual basis. Without that sort of inventory it is incomprehensible how anyone can determine whether the proposed plan is adding or subtracting fuel on an annual basis. Given the sophistication of modern forest inventory techniques this would not be incredibly difficult numbers to generate. It needs to be done.

2) The same criticism can be made regarding estimated quantities of fuel (cellulose) that are being forecasted for removal on an annual basis under each alternative. Subtracting this number from the annual increase number in "1" above would quickly determine whether each proposed alternative would actually be reducing the total tonnage of fuel or not.

Response: The fuel loads by burn unit are found in Appendix 6. Estimates of removal are compared in the air quality environmental consequences section, Chapter 4. In general, it is logical to assume that the higher the FRID, the greater the amount of wildland fuel due to missed fire cycles.

Concern #106: The National Park Service should take quick action to reduce fuel accumulation and the density of tree stands, to make fires and their air quality affects manageable.

Letter Number: 141

Comment: As we have seen in the past few years, nowhere is immune from the affects of large fires when the area is drought stricken. Quick action to reduce fuel accumulation and thin out tree stands near values is needed before another drought occurs in the Central Sierra. Regardless of where the fires occur, when drought conditions exist these fires are behaving in ways not often seen in the past. It has been documented in several post fire evaluations and articles that intense fires slow down and cause much less damage once they encounter a thinned area or recently burned area. Several cases of this were documented in the past few fire seasons and your own Ackerson Complex is an example as well in the North Mountain area. It is also true regarding air quality that the worst smoke events occur from large out-of-control wildland fires as opposed to short prescribed fire events.

Response: Yosemite Fire mangers concur. Some experts have stated it may take 30 years to reverse the effects of 80-150 years of fire suppression. The preferred alternative would accomplish target restoration goals in 15-20 years. Park staff are already working to thin and burn around the major developed areas of the park, as well as carrying out a series of prescribed burns

along the western slope, and managing lightning ignitions in the fire use zone to restore and maintain the ecosystems found there.

Concern #107: The restoration target conditions in the FMP/EIS should not be so broad.

Letter Number: 63

Comment: The tolerances in the "Restoration Target Conditions" (Gap Distributions, Tree Density and Frequency, and Fuel Load) are so broad that any prescribed (Rx) treatment would be permitted.

Response: The restoration targets represent the current best estimate based on research, monitoring, and the expert opinions of research scientist working in these areas. They are broad, but we believe this represents the range of natural variability that would have been seen across the landscape before fire exclusion. The adaptive management process is in place to refine these as we learn more from research and monitoring. The broadness also is reflective of the fact that the EIS/FMP does not intend to recreate the ecosystems back to some specific year in the past.

Concern #107a: The restoration target conditions in the FMP/EIS are questionable:

Letter Number: 117

Comment: The "restoration" objective is, as indicated, also questionable. Many interventions and modifications have occurred in the WUIs since the onset of fire suppression (for example the development of trails and structures), and will remain unchanged. In this sense, true "restoration" is not being sought at Yosemite and will never be achievable in WUIs.

Response: WUI areas contain many developments, and will not be restored to a pristine condition so long as the developments exist. This does not negate the importance of restoring as fully as possible a non-degraded ecosystem. Such degraded systems may contain large quantities of understory trees, which pose not only a wildland fire risk but also cause stress to larger overstory trees, which will then often succumb to insects and diseases. The 1963 Leopold Report, which is a cornerstone of NPS natural resource management policy, also touched on another important issue. The authors noted that dense thickets of trees, or “doghair thickets,” formed a scene that was depressing rather than uplifting, and not representative of a “vignette of primitive America” that visitors to national parks seek.

Concern #107b: The National Park Service may not know enough about pre-settlement conditions to develop restoration target conditions.

Letter Number: 133

Comment: Second, we do not know what presettlement conditions were. At best, we can make rough guesses.

A) To the extent that forest conditions in certain parts of Yosemite were more "open" when white settlers arrived, it may well have been a result of recent fire events that thinned forest stands - stands that may have been much more dense just a few decades earlier.

B) It may also have been the case that some areas were more open and may other were more dense, including backcountry areas that may not have been photographed in the late 19th century (i.e., it may well be that the only areas we have early photos of were areas that were a bit more open at that time, but may not have been representative of the lager area).

C) Also, it may well be that the 19th century photos that have been relied upon to demonstrate that Yosemite forests were more "open" were actually taken AFTER significant human-related removal of trees had already occurred. This is certainly true of early pictures of Yosemite Valley, which were invariably taken after whites had been felling trees for firewood, corrals, cabins, and bridges in the Valley for at least 15 years already.

D) In additions, populations of Native Americans were probably more likely to be more concentrated in the Valley than in other areas of Yosemite and, thus, the Valley may have been more open due to Native Americans' use of timber even before white settlers arrived.

E) Further, to the extent that some areas were more open historically, it is more likely that they were more open in the UNDERSTORY - i.e., beneath the canopy. In other words, they may have had closed canopy conditions from dominant and codominant trees, but still had open understories. In this regard, removing large trees up to 31 dbh would not restore historic conditions.

F) Those who have claimed that Sierra forests were generally more "open" historically (as a justification for removing medium and large trees) have badly misrepresented the historical record. As the Sierra Nevada Ecosystem Project Report (Vol. 1, p. 63, 1996) points out: "J. Godsborough Bruff, a forty-niner who traveled the western slopes of the Feather River drainage between 1849 and 1851, kept a detailed diary. He clearly distinguished between open and dense conditions and recorded the dense condition six times more frequently than the open. Many other accounts of early explorers (e.g., John C. Freemont, Peter Decker, William Brewer), identify dark or impenetrable forest; the presettlement forest was far from a continuum of open, parklike stands."

Response: See response to Concerns #95 and #100. There are many theories about the presettlement forest, as noted in the comment. Some evidence of how fire is thought to have behaved under presettlement conditions can be seen in the pattern of burning left behind by a low intensity prescribed fire, and by higher intensity wildland use fires in the Fire Use Unit. Both types of fires leave thickets of trees in some areas or aspects, while burning away understory, and occasionally overstory, trees in other areas. It is this mosaic of fire effects that is believed to have been the hallmark of historic fires, and the type of pattern the EIS/FMP seeks to restore or maintain. Conversely, it is the widespread, uniform destruction seen in modern wildfires that the EIS/FMP seeks to prevent.

Concern #108: The FMP/EIS exaggerates the risk of catastrophic fire and should justify why some fires are considered catastrophic and why action is needed to reduce their potential for their occurrence.

Letter: 63, 115,

Letter Number: 63

Comment: Although the alleged purpose of the FMP is to reduce the potential for catastrophic or stand-replacing fires; the document does not report the history of such fires as the A-Rock--16,700 acres (1990), Steamboat--5,700 acres (1990), or the Ackerson Complex--46,000 acres (1996). Except for acres burned (which are not easily located in the document), no data are provided on these or other "unwanted wildland fires" (areas of low, medium, and high intensities, mortality, fireline intensity, fuel loadings, previous fires, or "management" activities). There is only the statement:

"The three large wildland fires that burned in the park (A-Rock, Steamboat, and Ackerson) were excluded from this analysis because they are believed to have been outside of the natural range of variability for fire." This means that those fires could not be "managed" and thereby utilized to accomplish desired objectives. Nevertheless, absent such information, a reviewer cannot assess meaningfully the potential for catastrophic or stand-replacing fires in other potential treatment areas, or the probability that the proposed treatments will reduce this potential. In our view, the document not only exaggerates the risks, but also exaggerates the potential for risk reduction achievable through the proposed treatments.

Response: Please see additional discussion under *Wildland Fire Management Situation*, on page 3/3 of the DYFMP/EIS and *Vegetation and Fire Ecology*, beginning on page 3-4. Fires that are considered catastrophic result in loss of life, personal property, and/or threatened or rare resources; or fires that result in long-term detrimental changes to the ecosystem. Usually these fires are large stand-replacing type fires. Potentially, stand-replacing type fires could occur anywhere within Yosemite's forested areas. Prior to fire suppression, unabated lightning fires and aboriginal burning practices maintained forest fuels and tree stocking levels at a low level. Fires burned frequently, and with low intensities, because of the lack of available fuels. After 80 years of intense fire suppression in and around Yosemite, there are many more trees and fuels to burn. With more fuels, fires burn hotter and with more intensity. In the past, fires would move mostly on the ground, through the needles and branches. Now, with plenty of fuel ladders to climb, and trees more densely packed together, the potential for a fire to burn through the crowns and take out an entire stand of trees is much more increased.

Researchers at Yosemite believe there have never been similar fires to the three large fire events occurring in the 1990's (A-Rock, Steamboat and Ackerson). These fires certainly would be considered catastrophic. During the A-Rock and Steamboat fires, the park was closed for 11 days and 45 structures and homes were burned in Foresta. California spotted owl habitat and nesting sites were destroyed and will probably take 80 years to recover, according to Steve Thompson, the Yosemite Park Wildlife Biologist. Certainly there was a threat to life, as some of the Foresta residents were evacuated at the last moment. The fire scars from those fires have been and will be visible for years to come.

The potential for more catastrophic fires remains. Threatened resources include the Hetch Hetchy watershed, Hodgdon developed area, Merced, Tuolumne and Mariposa groves of Giant Sequoias, Yosemite West subdivision (which was almost overrun by the 1990 Steamboat Fire), Wawona, and portions of Yosemite Valley. A large fire in any of these areas could result in a loss of life, property, cultural and natural resources, and/or a disruption to the local economy. The potential for catastrophic fire is not exaggerated.

Concern #109: The FMP/EIS should define a healthy forest as one that fosters wide plant and animal diversity.

Letter Number: 79

Comment: I suggest we start defining a healthy forest as one that fosters wide plant and animal diversity.

Response: We agree, and fire is one agent of change that leads to diversity. It is also why the FMP/EIS does not attempt to recreate or maintain a specific point in time or ecological phase, but rather a range of conditions.

Concern #110: The FMP/EIS may not be able to accomplish meadow restoration objectives with fire and thinning alone.

Letter: 135, 101, 109, 138, 116,

Letter Number: 135

Comment: Our understanding is that tree encroachment of meadows is not solely due to fire exclusion, but also due to changes in hydrological processes caused by the system of roads and other development in the valley floor that has lowered the water table. Thus, simply thinning trees back to historic species composition and stand density, and then reintroducing prescribed fire may not be effective in restoring the spatial extent of meadows. Questions: is the Park willing to consider road removal and un-development along with its proposed large tree removal (mainly incense cedars and white firs) as a more comprehensive restoration strategy? How will meadow restoration be successful with just mechanical thinning and prescribed fire alone?

Response: It is true that the meadows of Yosemite Valley have been effected by alteration of many natural processes including fire and ground and surface water dynamics. According to the Yosemite Vegetation Management Plan (1997 – page 19), "historic uses including grazing, farming, ditching, and present visitor use levels and patterns have degraded meadow functioning to unacceptable levels."

In response to these changes and the gradual loss of meadow acreage in Yosemite Valley, the NPS has developed a comprehensive approach to ecological restoration of meadows using fire and thinning as two tools in a larger set of management options. For example, recent specially funded projects have facilitated restoration of more natural surface water flows through Cook's and

Sentinel meadows, re-established connections with the Merced River through installation of road culverts, and established boardwalks and pathways that allow for public use while protecting the soils and plants within the wet areas of each meadow. In Cook's meadow a historic road was removed, historic ditches were filled, and original oxbow contours were re-established to encourage increased surface water inundation of the entire meadow.

The Yosemite Valley Plan (2000 – page 2-50) calls for the removal of the road through Stoneman Meadow and the southern end of Ahwahnee Meadow. The roads and utilities through Bridalveil, El Capitan, and Cook's meadows would be evaluated and, if needed, realigned or reconstructed to restore critical surface water and shallow subsurface water flows that sustain the native meadow vegetation and wildlife and discourage conifer invasion.

Reintroduction and use of prescribed burning, and thinning of trees can help restore and maintain meadow systems, but will not be used exclusive of the other tools of water table manipulations, removal/modification of deterrents to natural water flows, and removal of non-native species.

Concern #111: The Fire Management Plan should recognize that fire has resource-related benefits that biomass removal and/or logging do not.

Letter: 122, 2, 11,

Letter Number: 122

Comment: Fires kill bark beetles, while logging does not.

Letter Number: 2

Comment: I am concerned about the plans to sell or give away the chips generated by the "Cutting/Chipping" and "Chip and Haul" processes (page 2.26). It seems intuitive that the biomass of the vegetation identified for chipping contain nutrients taken from the soil and that the loss of these nutrients from the ecosystem would be detrimental. An analogy would be whether it is better to leave my lawn clippings on the lawn versus bagging and taking them to the landfill. Is there research to support or refute this assertion? What is gained by removing the clippings as opposed to leaving them on site for prescribed burning?

Response: The goal of the DEIS is to restore fire as a critically important component of park ecosystems. Areas that are thinned will be treated with prescribed fire; the thinning near communities would be done to facilitate the use of prescribed fire near them. While most piles of woody debris would be burned on site, some may be removed or hauled off site, particularly in situations where smoke from burning piles would pose a health hazard. Air regulators have requested that woody fuels be chipped when feasible to avoid smoke impacts on nearby communities. Prescribed fires would generally be used perpetually after the heavy amounts of fuel are reduced through chipping, so the benefits of fire would still occur over time.

Concern #112: The National Park Service should recognize that prescribed fire may not prevent catastrophic fires.

Letter Number: 8

Comment: You assume that a pre-emptive strike (prescribed fire) will prevent a catastrophic fire in the foreseeable future. In the 1930's, the Tillamook Burn in Oregon was followed by three more huge fires at seven-year intervals.

Response: Many large fires in the Pacific Northwest and Lake States in the latter part of the 19th and first part of the 20th century were caused by extensive areas of untreated slash. Such intense fires killed enormous numbers of trees, setting the stage for subsequent large fires. The DEIS does not guarantee that large fires will not occur, but rather reduces the chance for such fires to occur by reducing fuel loads and restoring a mosaic pattern of burns of many ages. The potential for large fires to occur is reduced as the continuous layers of wildland fuels that have accumulated due to fire suppression are broken up.

Concern #113: Off-season prescribed burns and re-ignitions may not result in the same effects as wildland fires that are allowed to burn.

Letter Number: 4

Comment: the plan discusses prescribed burns in the fire off-season and or re-igniting wildfire burns in the fire off season! Have any studies been done to determine the effectiveness of a fire in the off season and regrowth of the forest and vegetation? It seems to me, that since most fires occur in the summer there is also a reason for this, that we may yet not know about similar to the one about letting wildfires burn. In the past we put them out for decades, now we know we shouldn't have. Can we really correct the mistakes we have made? Maybe there could be more erosion of the soil or the inability for seedlings to replant and the forest floor would remain barren longer.

Response: It is the goal of the FMP to allow wildland fires to burn as naturally as possible. Where this is not feasible, prescribed fires will be ignited as close to the natural fire season as possible. For re-ignition, fire behavior computer models are used to assess what the movement of the natural fire might have been, to guide the ignition pattern of the prescribed fire operation. The development of a prescribed burn plan will include consideration for the sensitivity to fire of plant and animal species, especially to early season fires. The program also utilizes a fire effects monitoring system to gather data to ensure that unplanned or unwanted effects on natural resources are not undetected.

Concern #114: The National Park Service should focus only on the removal of small trees, to reduce fire risks, rather than thin larger trees to restore the natural range of variability for forest stand structure.

Letter: 11, 43, 41, 71, 125, 67, 92, 68, 117, 48, 38, 100, 33,

Letter Number: 11

Comment: Medium large trees, including trees 20" and larger, are almost always not the problem when it comes to high fire risk. They do not form a fuel ladder because

they seldom have foliage (low branches) that will provide a flashy fuel low to the ground. Trees in the 20-31" range are inappropriate to remove for fuel reduction purposes, especially given the mandated mission of Yosemite National Park.

Letter Number: 11

Comment: CSERC urges that there be a reduction in the size limit that the Park proposes for fuels reduction treatments from the current proposed limit 31.5"dbh to a maximum of 20" dbh. At most.

Letter Number: 117

Comment: In sum, the Park Service should establish strict, scientifically based diameter limits on the size of tree that can be removed, that is based upon desired fire behavior. We believe there is good scientific justification and precedent for a limit of about 10-12 inches d.b.h. in most WUIs.

Response: The maximum size for thinning has been reduced from 31.5" as proposed in the DEIS to 20." The area of forest restoration thinning under this EIS has also been reduced to no more than ¼ mile in and around the six WUI communities. This has been done to focus more on smaller trees that contribute to fire behavior, as well as to increase the probability that trees selected for thinning, and are in, or adjacent to, wildland urban interface communities, will be trees that originated following the onset of fire suppression in the latter part of the 19th century.

Concern #115: The National Park Service should leave all cut material on site, to provide for nutrient cycling and other natural processes.

Letter: 125, 77, 38, 66, 84, 86, 100, 63, 75, 119, 80,

Letter Number: 125

Comment: All cut material should be recycled (natural decay, mechanical treatment, burning) within the Park as close to its point of origin as possible, in order that habitat and nutrients would be available for numerous species, including future trees. (Some material would need to be removed to a safer location within the Park if leaving it where it lies would result in unacceptable fire risk.)

Response: This is the goal of the fuel reduction and forest restoration programs. In an effort to reduce hazardous fuels and potential for catastrophic fire, some fuels will have to be removed. In the Wildland Urban Interface (WUI) areas, where all of the thinning to restore forest target conditions will be done, the goal is to decrease the fire hazard. Leaving cut fuels in place will increase the fire hazard, by adding even more fuels in the critical areas. However, some nutrient cycling will occur when cut material is piled and burned on site. Not all cut materials will be removed. Some areas will be chipped, and some of these chips will be spread on-site to decompose. However, resource managers at the Park have requested that the chips be spread no deeper than one inch. They have found that deeper than one-inch chip piles promote the invasion and spread of non-native plant species. Excess chips will be used elsewhere in the Park, or disposed by other means.

Removal of fuels for fire protection is a priority which will be accomplished quickly, as noted in the alternatives. These are trees less than 12" dbh. The removal of trees for forest restoration purposes (20" dbh and smaller) in and within ¼ mile of the six WUI communities is a lower priority. Consequently, the removal of trees for the latter purpose can be done at a slower rate, at least partially avoiding an accumulation of fuel that cannot be burned safely on site and must be removed offsite. A slower removal of trees for forest restoration purposes also permits a greater opportunity to utilize the wood internally within the park, such as for firewood. The sale of the trees, such as is done currently for the Hazard Tree program, would be the least preferred method for removal of the trees, under the fire management plan.

Concern #116: Site-specific analysis should be completed before actions are taken by the National Park Service.

Letter: 38, 123, 114, 71, 74, 124, 115, 67, 101, 65, 66, 77, 58, 59, 60, 43, 41, 116, 109, 80,

Letter Number: 38

Comment: To the extent that the cutting of some trees may be warranted for fuel/hazard reduction purposes, there is no magic number for all situations to determine the maximum diameter tree which would be permissible to cut. There are simply too many variables. In addition to fuels build up, density and size of living materials, etc., many other factors affect the risk of fire becoming catastrophic. Some of those factors are slope, aspect, elevation, average temperatures and moisture content, typical prevailing winds, latitude, geographic location, etc. Some of this would fall under the headings of "macro" and "micro climate." Additional major factors are proximity and condition of surrounding forests (especially downslope, and including degree of canopy closure), proximity to valuable and/or historic structures, and recovery time if something were destroyed (e.g. thousands of years in the case of a sequoia grove). Given the possibly endless combinations of variables, each different site--or grouping of sites with somewhat similar conditions--requires a site specific analysis to determine which trees must be cut to achieve the necessary fuel/hazard reduction.

Response: Yes, a tactical, site-specific analysis would be completed prior to the initiation of individual projects. Planning procedures and requirements are discussed in Appendix 3, *Wildland Fire Response, Planning, and Implementation Procedures*. These kinds of procedures and requirements have been in place even before this revision of the YFMP. Under the 1990 YFMP (which is the basis for the No Action Alternative), individual plans (commonly referred to as burn plans, even when they include a thinning component) were completed and then reviewed and refined by subject matter experts (fire, safety, and natural and cultural resource management specialists) prior to project approval and implementation. This requirement would continue. The purpose of the EIS/FMP is to analyze and describe the strategies that may be employed, upon which the tactical documents are based and written.

Concern #117: The Fire Management Plan may overemphasize fire risks and/or the potential for catastrophic fire.

Letter: 11, 63,

Letter Number: 63

Comment: Also notable are the locations for treatments in the Wildland/Urban Interface (WUI) areas shown in the maps for Wawona, Foresta, and Yosemite West (Map 2-6,2-10, and 2-11 respectively). In Table 2-9, these areas are identified for "Aggressive: and "Fire Use" Units. Large portions of these proposed treatment areas are upslope from the communities they are intended to protect. Fire administrators have informed us that - as a rule of thumb - upslope fire will burn 16 times faster than downslope fires. We recognize that this figure has a reference range of variability depending on the slope steepness, fuel load, and atmospheric conditions. Nevertheless, a fire backing down a slope - which by itself will generate an updraft condition - will not race towards the communities as would a fire burning upslope from the Sierra National Forest toward Yosemite West.

Certainly, if the surface fuel load and live fuels (ladder trees) are sufficient to sustain a crown fire, they must be reduced. However, the DFMP does not contain analysis sufficient to convince us that live trees in the 15 - 31.5 inch DBH range represent a hazard. These would be 75 feet to 150+ feet in height and the bases of the crowns would be well above the flame lengths expected when the surface and ladder fuels are reduced to acceptable levels. In our view these data make it abundantly clear that the DFMP grossly exaggerates the potential for catastrophic wildland fires. Given SNEP's "Critical Finding" regarding timber harvest; the proposed aggressive thinning may exacerbate the problem by altering the stand structures and microclimates.

Response: See response to Concern #108. It is true that some of the Wildland Urban Interface (WUI) zones contain land that is upslope from the community. Part of the intent of a protection zone around a developed area is to not only protect from fires which may burn into it, but also to be able to control a fire that may be burning away from it. Certainly a high density of visitor or resident use increases the risk of a fire start in those developed areas. Also, potential spot fires from trees torching out or logs rolling downhill are a concern. A one-quarter mile (1200 feet) zone of reduced fuels will significantly diminish ember showers raining down on communities (with many wood shake roofs). And, while a fire will respond to topography and burn upslope several times faster than downslope, the primary influence of fire direction and spread is the wind. A downslope wind, or a microburst from a thundercell does send fire downslope quite rapidly and unexpectedly. The key to successful defensible space is to provide a buffer zone all around a community, as well as provide ingress and egress routes for safe passage/evacuation.

The WUI areas where thinning will be conducted represent less than 1% of the Park's total acreage. Trees up to 20 inches diameter breast height (DBH) in and within ¼ mile of the six WUI communities will be considered for removal to meet forest restoration and hazard fuel reduction targets. Some trees up to 20 inch DBH on main roads within the Suppression Unit will be removed to meet hazard fuel reduction objectives, which are concerned with breaking up the continuous layer of canopy often caused by trees originating on the disturbed soils of road cuts. Fire can easily be carried from crown to crown under dry, windy conditions, and spread embers up to a mile away, as well as burn intensely enough to close the road for evacuation purposes. Once those objectives have been achieved mechanically, prescribed fire will be considered the main tool for their maintenance.

Concern #118: The FMP/EIS should increase the use of prescribed fire and managed wildland fires to accomplish fire and resource management objectives.

Letters: 134, 36, 98, 23, 51, 11, 110,

Letter Number: 134

Comment: We applaud the efforts the Park has made to reintroduce fire into its ecosystem and to reduce fuels using prescribed burns. This program needs to be greatly expanded as the primary tool for reducing the risk of catastrophic fire. Let prescribed fire, and natural ignition fires w/in prescription, reestablish a new, "natural" mosaic appropriate to this (the current) period of time, remembering that it is most critical to treat the surface fuels to lower the risk of catastrophic fire.

Response: All Alternatives, with the exception of Alternative A, propose to increase the use of prescribed fire over the levels generally reached in the recent past.

Concern #119: The FMP/EIS should NOT increase the use of prescribed fire and managed wildland fires to accomplish fire and resource management objectives.

Letters: 138, 30, 61, 32,

Letter Number: 138

Comment: And that 7/8 of the Park, virtually the entire "high country" is for "Wildland Fire Use". Fire USE?? You are using this precious land for fire?? I do not trust you to do this. Again, I stand by my scoping comments of April 30, 2001

Letter Number: 30

Comment: I don't think that the concept of prescribed burns is viable. They require that the forest be not too dry or too wet. They are limited by temperatures/humidity and wind velocity/acceptable direction. According to the meeting on the Plan held in Sonora by the Yosemite Park team; most prescribed burns require two consecutive burn-days which limits their use, and they are not used on Fridays or weekends when the Park is crowded with tourists. Since the plan states that prescribed burns shall conform to California's air quality requirements, there won't be very many days that allow prescribed burns.

Letter Number: 138

Comment: I resent that you have divided the ethereal Yosemite into what you call " burn units" as though there is not a complex, interactive symphony of life taking place there.

Response: All Alternatives, with the exception of Alternative A, propose to increase the use of prescribed fire over the levels generally reached in the past. This is because we are not treating enough acres with fire to prevent serious environmental degradation and the increased threat of catastrophic wildfire. The full terminology of “fire use” is wildland fire used for resource benefits,

which underscores that fire is an important ecological factor for Yosemite ecosystems. We agree that burn units should be as large as possible to capture the many nuances of a fire mosaic.

Concern #120: The National Park Service should increase prescribed fire and managed wildland fire rather than rely heavily on thinning activities.

Letters: 11, 77,

Letter Number: 11

Comment: The document does not fairly assess the value of increasing prescribed burning rather than relying heavily upon mechanical treatments in interface areas.

Response: See Concern #118. The thinning which is proposed in areas adjacent to wildland urban interface communities is designed to facilitate the restoration of fire to areas where the use of prescribed fire is neither safe nor practical because of existing fuel characteristics. In the FEIS, the size of trees to be thinned was reduced from 31.5" to 20", and it was clarified that such thinning would only occur along road corridors and WUI communities in the Suppression Unit. The intent to use prescribed fire and wildland fire as the main tools for ecosystem restoration and maintenance, as well as wildland fuel reduction, remains.

Concern #121: The FMP/EIS should clarify how much of the proposed project work would be for fire management and how much would be for vegetation management.

Letter Number: 115

Comment: How much of the Rx and the M in the WUI and the Wilderness and wildlands areas, Project by Project as per Table A-6-2 and Table A-6-3, are for fire management? How much of the Rx and the M in the WUI and the Wilderness and wildlands areas, project area by project area as per Table A-6-2 and Table A-6-3, are for vegetation restoration?

Response: There are no acres in wilderness that are being managed with mechanical means to restore vegetation management conditions. Prescribed and wildland fire are used to accomplish both vegetation and fire management objectives in wilderness. Outside of wilderness (i.e., generally, the Suppression Unit), prescribed fire is the only tool which will be used to accomplish both vegetation and fire management objectives. Mechanical means to achieve vegetation management target objectives will only used in those projects which fall within ¼ mile of the six WUI communities of Yosemite Valley, Hodgdon Meadow, Wawona, El Portal, Yosemite West, and Foresta. Hazard reduction thinning will also occur along roads in the Suppression Unit, Mechanical means to achieve vegetation management objectives in any project area anywhere else in the park will require a separate EA, subject to public review and comment.

Concern #122: The FMP/EIS should propose to cut trees only for purposes of protecting wildland urban interface, and under a limited set of conditions.

Letters: 82, 11, 110, 99, 93, 104, 101, 27, 115, 43, 122, 50, 44, 101, 100, 36, 123, 41

Letter Number: 82

Comment: It is NOT necessary to remove all snags within the buffer area that encompasses the vegetation within 30 ft of structures or private property. Maintaining the appropriate level of large snags and down logs is important for ecological purposes. We ask that clear standards and guidelines be established that specify minimum snag and down log retention levels.

Letter Number: 11

Comment: CSERC strongly supports aggressive fuels treatment in Yosemite's urban interface areas where high fire risk truly exists. We recognize the need, and we understand the desire by Park staff to reduce the existing fuel load near areas of development, as well as in areas of unnatural fuel build-up. Our Center also supports a far more intensive program of fuel reduction than has occurred in recent years.

Letter Number: 93

Comment: I believe there should be no cutting of any large trees more than 300 feet away from buildings or private property. No trees large than 20" in diameter should be cut for fuel treatment purposes in the Park.

Letter Number: 101

Comment: Crews hired to cut trees and brush need to be supervised by knowledgeable, trained NPS supervisors.

Letter Number: 115

Comment: The plan proposes to cut trees up to 31.5" in diameter. The plan hypothesizes that this is the minimum diameter the trees would be today that started growing before fire suppression began in 1860. While the plan does not call for selling the trees outright, it allows private companies to sell the logs -- that is commercial logging. The commercial incentive for saleable size trees to be cut, be it by the National Park Service or commercial enterprises, must be completely eliminated.

Response: The language in the DEIS has been modified. The maximum diameter of tree that will be thinned to meet target conditions for forest restoration objectives has been reduced from 31.5" to 20" dbh." Such thinning will be limited to the community itself plus a radius of ¼ mile from the edge of the wildland urban interface communities (Wawona, El Portal, Yosemite Valley, Hodgdon Meadow, Foresta, and Yosemite West). Roadsides in the Suppression Unit would be thinned for hazard reduction objectives. All these areas will be thinned to meet fuel reduction objectives, followed by pile and prescribed burns. From ¼ mile to 1 ½ mile radius around these communities, prescribed fire will be used first; if target conditions are not reached, thinning of trees up to 20" dbh may be done following preparation of site specific environmental compliance documents subject to public comment. Target conditions for vegetation restoration and maintenance will be achieved by prescribed and wildland fire throughout the rest of the park. Material generated by thinning operations will be burned, chipped, or utilized for in-park projects. Some may be sold following the same process used by the Hazard Tree program, but under the fire management plan, this would be a last resort.

Concern #122a: The FMP/EIS should propose to cut trees only for purposes of creating a 300 feet buffer zone around and protecting the inner core of wildland urban interface, and under a limited set of conditions.

Letters: 63, 82, 128, 126, 33, 130, 94, 134

Letter Number: 63

Comment: Although YAA disagrees with pollicies that permit high-value, high-risk developments within the Park (or elsewhere on the range); we concur that the existence of such developments demands more intense protective measures than would be appropriate in undeveloped areas. Thus, we support the concept of the 300 feet (100 meter) buffer zone around such developments, when there are excessive accumulations of surface and live (fire ladder) fuels. However, some smaller diameter, fire-susceptible tress must be retained to provide recruitment for the large trees when they become decadent and die. In developed area the distribution function (number of trees v. diameter) must be widely divergent from that used in the undeveloped areas.

Letter Number: 82

Comment: The Wildland Urban Interface zones should be divided into distinct areas for action purposes. The area within a certain distance of structures and private property, where the greatest potential for harm exists, should be approximately 300 ft. wide. That inner core fuel treatment "needs" area may, indeed, be appropriate for extremely aggressive mechanical treatments, whereas the rest of the WUI area may be more appropriately managed through less intensive management strategies.

Response: the size limit for thinning, and the radius around communities to which these thinning standards are applied, are consistent with those developed by the Forest Service Forest Plan Amendment EIS. While a 300' buffer zone does provide protection from wildland fires, especially if reinforced by an engine, it may be too narrow to allow firefighters to safely conduct prescribed fires, such as to prevent the ignition of buildings from flying embers. This is especially true since in the FEIS prescribed fire is to be used as the initial thinning agent in the ¼ to 1 ½ mile radius outer WUI zone around the six wildland urban interface communities, in lieu of mechanical thinning. The inner WUI zone when implemented may be less than ¼ mile in specific areas where fuels and topography allow, but the zone will not be wider than ¼ mile. Thinning for forest restoration purposes near WUI communities would take into account forest demography to ensure that young trees are available to replace older trees when they die.

Concern #123: The FMP/EIS should utilize cutting and piling of small trees, in addition to prescribed fire, to achieve resource management objectives.

Letters: 87, 88, 63, 79, 133, 13, 82, 29,

Letter Number: 87

Comment: Semi natural processes (controlled burns) should be used whenever possible to

correct this problem. In areas where controlled burns would present an unreasonable risk of catastrophic fire, cutting and piling very small trees and brush for burning under suitable conditions should be considered.

Letter Number: 79

Comment: There are huge areas in Yosemite that desperately need thinning and ongoing maintenance, some areas need light thinning other areas need heavy thinning. Fire breaks need to be established and maintained for access in case of fire. This does not mean wholesale logging. If well intentioned people would only compare the damage from careful thinning to the results of catastrophic fire they would embrace a managed forest.

Response: We agree with these comments.

Concern #124: The FMP/EIS should utilize thinning and/or logging activities as needed to achieve resource management objectives.

Letter: 136, 83, 32, 135, 141, 47, 39, 35, 121, 81, 13, 131,

Letter Number: 141

Comment: The issue of removing trees from the park forests will surely be controversial. It is a basic change in past practice for parks. It is a sign of dealing with changing times and changing conditions however, and it must be done to reduce stem density which has been shown to contribute to crown fire. I support this concept of dealing with the problem and also think that the limited amount of tree removal will not lead to widespread "logging" as some people think. I applaud you for proposing these measures for protection and yet preserving the park ethic of allowing natural process to prevail for the rest of the park. Widely publicized and interpreted experimental sites would show these groups that it can be done right.

Response: Thinning of trees up to 20” for forest restoration objectives would be done around six wildland urban interface communities. Core samples from trees would be collected to identify those trees which likely became established after the onset of fire suppression, approximately 90 to 130 years ago. A portion of these trees would be removed to meet restoration targets, bringing the density of these trees more in line with that present prior to the onset of fire suppression activities. Following the removal of these trees, the area would be treated with prescribed fire perpetually to mimic the natural influences of fire, to the maximum extent possible.

Concern #125: The FMP/EIS should indicate that prescribed burns would follow fuel removal and thinning activities. The FMP/EIS should indicate that prescribed fire is the predominant treatment, even in areas treated with fuel removal and thinning activities.

Letters: 117, 58, 110, 136,

Letter Number: 58

Comment: To avoid excessive fuel build up, require that cut material remain in the Park where it can be burned under controlled conditions.

Letter Number: 117

Comment: We also request that the final plan state clearly that fuel removal, either by prescribed burns or some other silvicultural method, will always be used following mechanical treatment. In addition, we would like the plan to direct that no new roads will be built to support forest thinning.

Response: Prescribed fire and pile burns will be used as a part of all mechanical fuel treatments, with prescribed fire used wherever practical to do so. Fuels will be treated as they are cut, such as chipped or piled and burned when dry, to avoid a buildup of even more hazard fuels. Prescribed fire and wildland fire are the primary ecosystem management treatment methods. No new roads will be constructed in support of any forest thinning operations, nor will any existing roads be widened.

Concern #126: The National Park Service should employ prescribed burning in non-wilderness areas, and only managed wildland fires should be used in wilderness.

Letters: 75, 135,

Letter Number: 75

Comment: NPS must implement a prescribed burning program in the parts of YNP that are not Wilderness or managed as Wilderness that mimics the natural seasonality, duration, frequency, intensity, rate, evenness of burn, start locations, vegetation mosaic/patchiness, and regime of fire. This will require research on the different ecosystems in YNP. No prescribed burning should be allowed in the part of YNP that is Wilderness or managed as Wilderness. Allow Nature to determine the ecosystems in a manner similar to how fire reacted in Yellowstone National Park. In Yellowstone National Park, after all the media who-ha, scientists found that the fires created healthier ecosystems.

Letter Number: 135

Comment: In table 2.9 on page 2-41, it appears that managed wildland fire will not be used within the suppression unit, even within designated wilderness. This does not appear to comply with the Federal Fire Policy that mandates the full range of possible responses to wildland fires. Even a "suppression" incident could involve simple monitoring on a portion of the fire, or confinement strategies that resemble monitoring. Question: will the suppression unit be a fire exclusion zone?

Response: The intent of the FMP/EIS is to fulfill one of Yosemite National Park's management goals " to allow natural processes to prevail." As much as possible, managed fires from natural ignitions occurring in the wilderness will be allowed to burn and maintain the ecosystem. However, there are concerns along the western portion of the Park, where developed areas are in close proximity to the wilderness boundary, where wilderness was excluded from the Fire Use

zone. In these areas, prescribed fires will be used to reduce hazard fuels and restore the ecosystem to conditions similar to pre-suppression era. Once the restoration is completed and the fire hazard risk has been abated or significantly reduced, these areas will have potential to be included in the Fire Use Unit.

On page 1-12 of the draft FMP/EIS, the management objective on the bottom of the page reads: "Implement a fire management program that is compliant with National Park Service and federal wildland fire policy and applicable regulations." Both NPS and federal fire policy state that a fire must be managed with an appropriate management response, based on resources at risk, cost/benefit, firefighter safety, and available staff to mange the incident. Appropriate management response can be a full suppression effort, or a modified response that includes containing, confining, or monitoring the fire. Yosemite Fire Management intends to utilize the full suite of management options for fires occurring within the suppression zone.

One constraint that remains is air quality impacts. While it is recognized that fire is a natural agent maintaining the ecosystem, smoke from fires inside Yosemite travels outside to communities all around the Park. When health concerns exist for residents in and around Yosemite, actions will needed to be taken to suppress or limit fire growth and spread.

Concern #127: The National Park Service should not allow any commercial logging or removal of cut materials

Letters: 100, 110, 113, 105, 108, 109, 84, 103, 115, 101, 114, 11, 90, 63, 67, 143, 138, 43, 45, 77, 123,

Letter Number: 110

Comment: 3. Prohibit the removal of any wood from the park resulting from the proposed actions. None of the material from trees thinned/hazard trees cut, etc. should be permitted to wind up on store shelves somewhere. Why? Simply because the calculus used to determine which trees should be thinned and what sizes of trees are to be thinned should not be allowed to become a proxy for making the operations commercially profitable. NO EXCEPTIONS. Yosemite National Park should not suddenly become a store of sawlogs simply because some of the park's vegetated areas suffer from the effects of fire

Letter Number: 115

Comment: A conservative estimate based on the plan is that 5 - 6 million board feet of timber per year would be logged for the next 6 - 8 years. Approximately 500 logging trucks per year heading from Yosemite to lumber mills. That does not include "hazard tree" cutting, nor set-backs from roads.

Response: In many lower montane coniferous forest stands the trees are so dense that crews have to cut openings just to pile the cut vegetation. Lopping, shredding, or crushing alone will not be practicable for some forest stands at Yosemite, where the great accumulations of fuel would result in extremely long residence times and high fire severity, killing roots of large overstory trees. In these situations, removal of logs may be necessary, but only after attempts to burn at least some of the material on site, or to use it internally for firewood, for example, have failed. The removal of

logs may be especially needed where the use of fire would heavily damage or kill the crowns of the remaining overstory trees.

National Park Service Management Policies direct that natural landscape and vegetation conditions altered by human activity may be manipulated where the park management plan provides for restoring the lands to a natural condition. Management activities to restore human-altered landscapes may include restoring natural processes and conditions to areas disturbed by human activities such as fire suppression. U.S.C. 16 Section 3 allows the Secretary of the Interior...upon terms and conditions to be fixed by him, to sell or dispose of timber in those cases where in his judgement the cutting of such timber is required in order to control the attacks of insects or diseases or otherwise conserve the scenery or the natural or historic objects in any...park... The terms and conditions define timber that is designated for removal from the land as personal property, and require that it be disposed of in accordance with property regulations.

Utilization of excess dead and down timber has continued in Yosemite at least since John Muir skidded windfalls to the sawmill he operated in Yosemite Valley several decades after Native American burning in Yosemite Valley had been disrupted. Contracts with private licensed timber operators have been used with excellent results to remove routine tree hazards and tree failures since the 1970's. Extensive timber sales were completed with good results after the Steamboat and A-Rock fires of 1990, and the Happy Isles Rockfall and Ackerson Fire of 1996. Work accomplished greatly exceeded National Park Service capacity and has allowed the National Park Service to avoid hundreds of thousands of dollars of equipment and personnel costs.

Concern #128: The National Park Service should recognize that the removal of mature trees actually increases fire danger.

Letters: 115, 98, 8, 63, 71,

Letter Number: 98

Comment: Logging of big trees is not necessary for the reduction of fire risk. In fact, I am concerned that logging of big trees could increase the fire risk if the trees are co-dominant and dominant trees in the canopy - reducing the canopy can result in drying out of the land. Trees that are in co-dominant and dominant positions in the canopy should not be removed at all. Only smaller understory trees that are part of the ladder fuels to the canopy should be removed as this will help keep fire out of the canopy. Trees should only be removed in areas close to development -- buildings and private property.

Letter Number: 63

Comment: A Critical Finding of the Report to Congress of the Sierra Nevada Ecosystem Project (SNEP), states (p. 1-62): Timber harvest, with its effects on forest structure, local microclimate, and fuel accumulation, has increased fire severity more than any other recent human activity.

Response: Only a subset of trees less than 20"dbh will be thinned in areas adjacent to six wildland urban interface communities, and fuels generated from this process will generally be burned or chipped on site, followed by the use of prescribed fire on a regular rotation. As a result, fire will

play a more natural role in these ecosystems while mitigating the risk of high intensity wildland fires and preventing an accumulation of unnaturally heavy fuels. Thinning of trees would not occur over extensive portions of the landscape, but rather be limited to areas near the six WUI communities and roadsides in the Suppression Unit.

Concern #129: The NPS should recognize that skidders and other motorized equipment cause substantial disturbance, and allows the introduction of non-native plants and other impacts.

Letters: 101, 116, 115, 122, 113,

Letter Number: 101

Comment: The use of large motorized equipment and skidding to remove trees brings a substantial disturbance to the soils. It prepares openings for new or additional incursions of non-native plants into all the areas of the Park where this equipment would be used. If thinning is done, it should be non-motorized.

Concern #129a: The NPS should not restrict equipment use if they can be used with limited impacts.

Letter Number: 120

Comment: Please do not artificially restrict appropriate equipment that may be used for mechanical reduction. Consider the impacts, not the nomenclature.

Response: Soil disturbance and erosion concerns are currently addressed by a Registered Professional Forester monitoring day-to-day operations and implementing best management practices, in-lieu practices, or remedial mitigation as needed

Non-native plants are a major staff concern, since logging contractors mitigating tree hazards in Foresta after the 1990 A-Rock fire spread noxious weeds. A new contract clause already requires contractors with off-road equipment to certify that their equipment is weed-free before entering Yosemite National Park, and monitoring plots are used to identify vegetation at work locations before and after fire hazard reduction contracts are implemented. Identified non-native plants are classified, prioritized, and managed by park staff in accordance with ecological restoration protocols.

Sensitive plants and vegetation communities are considered during detailed individual project planning. A records check identifies sensitive species present or likely to be in the work area. Pre-implementation surveillance and monitoring confirms presence and determines whether avoidance or more active mitigation is required. In extreme cases, individual plants are salvaged for replanting during site rehabilitation.

Habitats for plants and animals will be affected, but generally returned to conditions closer to the range of natural variation. Prescriptions will generally meet best management practices for preservation of California spotted owl habitat: live conifer trees greater than 20 inches in diameter

and all montane hardwood trees would be retained. Snags and the largest two logs per acre are also prescribed to be retained

The U.S. Forest Service has been burning crushed and shredded fuels in demonstration and production projects for several years with very good results. Even without removing fuels from the site, rearranging and compacting fuels and breaking the vertical continuity of ladder fuels reduces probabilities of catastrophic fires and crown fires, and greatly reduces resistance to control.

Concern #130: The National Park Service should not cut large trees (over 20 (or over 15) inches and up to 31.5 inches).

Letters: 33, 28, 64, 23, 128, 55, 46, 63, 36, 72, 128, 117, 133, 21,

Letter Number: 63

Comment: Also, to accomplish the objectives of fuel and catastrophic fire reduction, there is no need to remove the larger fire-resistant trees. If the objective is to restore the natural forest structure that would exist today, had there been no human interference with natural processes; this requires an ability to determine accurately what the current structure would be. The DFMP does not include a rigorous analysis that will predict such a structure. We doubt seriously that such predictions can be made or that restoration to a predicted condition can be accomplished; because the human manipulations have probably altered irrevocably the trajectories of the forests (See Rapp, 2002, Attachment - E, file PNW_Sci_UPD-B).

Response: The maximum size of 31.5” proposed in the DEIS has been reduced to 20” dbh. Research indicates that trees less than 20” tended to originate in the period when fire suppression activities began, approximately 90 to 130 years ago. Such trees are also the size class most likely to be thinned out through the use of prescribed fire. Mechanical thinning is a surrogate for prescribed fire in areas adjacent to wildland urban interface communities in which it is not practical to use fire at an intensity sufficient to thin this size class. Following this thinning activity, prescribed fire will be used to maintain fuel and vegetation characteristics within target conditions.

Concern #131: The National Park Service should utilize hand thinning and passive treatments only.

Letters: 14, 33, 137,

Letter Number: 137

Comment: To decrease fuel build up with passive reduction and to support the practice of hand cutting.

Letter Number: 33

Comment: I would prefer the use of horses and ATVs to remove smaller trees and shrubbery or non-heavy equipment to remove larger limbs and trees.

Response: These treatments will be utilized where they are effective; where they cannot be effective when used alone, other treatments are considered, consistent with NPS and Federal Fire Policy.

Concern #132: The National Park Service should employ the stand thinning standards identified by the USFS in the Sierra Nevada Forest Plan Amendment.

Letter Number: 117

Comment: We endorse that these Standards and Guidelines are designed to create conditions that allow fires to burn less severely. They are appropriately not driven by objectives to "restore" forest structural conditions (see below).

The Forest Service's current fuels reduction policy is based upon a wealth of research conducted over the past decade, which clearly demonstrates the need to retain and recruit large trees across the Sierra Nevada, and which underscores the significant impacts of removing them. Their Standards and Guidelines reflect the fact that any opportunity cost of retaining large trees (for example, the creation of future hazardous snags) are far outweighed by the ecological costs of cutting them. Moreover, the opportunity costs of retaining trees may be an important consideration in the Park Service's planning, but they are largely speculative, while the environmental costs of removing large trees are real, significant, and well-documented.

Response: The standards for thinning from the Forest Plan Amendment EIS have been incorporated into the FMP/EIS. Guidelines for snag retention for wildlife habitat will also be incorporated into the final FMP document. Thinning will be limited to areas in or adjacent to the six WUI communities, and along roadsides in the Suppression Unit. We agree with the ecological importance the Forest Service has placed on large trees.

Concern #133: The National Park Service should not allow managed wildland fires to become too intense and destructive

Letter Number: 64

Comment: I have reviewed subject plan and concur that the risk of catastrophic fire must be reduced. However I feel that some of the past managed wildland fires were allowed to become too intense particularly the Walker Fire which was allowed to burn during a hot and windy period when most of the adjacent Stanislaus National Forest was closed to public entry. Hundreds of acres of old growth conifers in the upper Tamarack Creek drainage were killed and replaced with highly flammable brush fields. The NPS informed me that the fire was burning within "prescription". How are more brush fields going to reduce the

risk of catastrophic fire. More Walker Fire situations should not be accepted under Alternative D.

Response: The intent of Yosemite in the Fire Use zone is to allow for natural processes to prevail. A fire that is threatening structures, or will not accomplish resource management objectives, or is causing health concerns because of smoke production, will receive some degree of management action to mitigate the problem. The managed wildland fire this comment refers to, the 1988 Walker Fire, was actually controlled when it exhibited extreme fire behavior, and in fact was the first recorded crown fire in red fir. Its spread was stopped at the Tioga Road at 3450 acres. Future managed wildland fires will continue to receive an appropriate management response, dependent on both internal and external influences. Wildland fires allowed to burn are monitored regularly, and management plans are developed by fire staff and approved by the Superintendent for implementation.

Concern #134: The National Park Service should clearly articulate where it proposes to utilize mechanical thinning.

Letter: 117, 63,

Letter Number: 63

Comment: There are approximately 110 miles of paved road and 49 miles of unpaved roads (shown in Table 2.11). Assuming a road width of 40 feet, the 200 feet -- from each side of the centerline to the wilderness boundary - leaves 360 feet eligible for treatment activities. The 159 miles amounts to 6,938 acres in which the only prohibition is that "all mechanical equipment [must remain] outside the wilderness boundary." The additional acreage represented by the 360 feet on the total length of the paved roads and those in Table 11.2, makes an absurdity of the statement that the treated area "will be less than one half of 1% of the Park;" particularly when these corridors are identified in Table 2.9 as eligible for "Aggressive

Letter Number: 117

Comment: 1. MANAGEMENT OUTSIDE OF WILDLAND URBAN INTERFACE AREAS Our greatest concern with the preferred alternative is the language in the draft EIS that indicates, suggests, or otherwise reveals that mechanized treatments have been proposed outside Wildland Urban Interface (WUI) areas. It is our understanding, based upon recent discussions with National Park Service (NPS) staff, that the agency will rely only on prescribed burning and managed wildland fire outside of these areas. We appreciate that agency's verbal assurance that no mechanized treatment will occur outside of WUIs, and we wish to memorialize this point in writing. We urge the NPS to articulate this policy clearly and in no uncertain terms in the final EIS.

Response: The WUI zone is a belt up to 1 ½ miles wide around the six WUI communities in and near the park: El Portal, Yosemite West, Foresta, Hodgdon Meadow, Wawona, and Yosemite Valley. Under the FEIS, mechanical thinning of trees less than 20”dbh to achieve target vegetation management conditions will only be done within ¼ miles or less of the six wildland urban

interface communities. This inner ¼ mile will involve thinning followed by prescribed fire (unless fire can be used initially safely). The ¼ to 1 ½- mile wide outer portion of the radius will be treated with prescribed fire initially. If unsuccessful in achieving forest restoration target conditions, project-specific environmental compliance documents will be prepared in support of mechanical thinning operations to achieve these conditions in the outer area. Thinning of some trees less than 20" dbh for hazard reduction will be done along road corridors in the Suppression Unit only, in support of the management of prescribed or wildland fires by establishing fuelbreaks This material will be chipped or burned, generally on site. Some thinning will also be done under utility corridors.

Concern #135: The National Park Service should not consider all of Yosemite Valley to be a Wildland Urban Interface area.

Letter Number: 117

Comment: Adopting this suggestion (--I.e., considering at least one alternative that increased the days of the week on which burning can occur, and a lower diameter limit--) will allow the Park Service to recognize the unique status of Yosemite Valley in finalizing this plan. In our view, the Valley is not a "real" urban wildland interface; it is the heart of one of the nation's crown jewel parks, and a place of sublime beauty, notwithstanding the extensive development that has occurred there. Accordingly, it should not be treated like an "ordinary" WUI, but rather should be treated separately and more conservatively, under the circumstances.

Response: Only the eastern half of the Valley is a wildland urban interface. Prescribed fire has been, and will continue to be, used in the western half of the Valley, and in some areas in the eastern half where safe and practical to do so. The proximity of businesses, homes, schools, medical facilities, and other developments in the eastern half of the Valley will require careful use of mechanical techniques as well as prescribed fire, particularly in regard to smoke management, to restore a more natural forest density and composition.

Concern #136: The National Park Service should thin trees along roads, so that they can serve as fuel breaks.

Letters: 62, 88, 130, 142,

Letter Number: 62

Comment: The Park Service should aggressively clear and maintain a fuel break along the major Highways through the park. One of the stated goals of the Yosemite Fire Management Plan (FMP) is to "reduce the risk of catastrophic fire…" By maintaining clear, defensible open forest with canopy separation along these highway corridors, a wildfire which would be otherwise unstoppable, might be contained. For example the road between the South Entrance and Chinquapin is almost entirely hemmed-in with thick accumulations of dead and dying small

trees, brush, and downed fuel. A defensible buffer zone may prevent a catastrophic fire from spreading into Wawona. Another example would be a wildfire in the lower elevations of the western portion of Yosemite which might be halted along highways 120 and 41.

Letter Number: 130

Comment: Roads and trails used for fire protection should be treated to the same standard as the urban interface. Fire fighter and public safety is the number one goal. Treatment of areas adjacent to roads and trails will protect against entrapment of firefighters and public users.

Response: We agree with these comments. The thinning of trees along 200' of either side of road centerlines in the Suppression Unit is an important part of the fire management program, since road corridors often define the boundaries of prescribed fire units. The use of prescribed fire in such units reduces the risk of catastrophic wildland fire burning through them, and towards communities at risk. The preparation of road corridors also provides safer locations for firefighters to ignite backfires and suppress unwanted wildland fires, and for evacuation of the public.

Concern #137: The National Park Service should not allow logging roads in wilderness.

Letters: 115, 114,

Letter Number: 115

Comment:: * NO LOGGING ROADS. No logging or other roads should be cut into Yosemite Wilderness or wild areas to accommodate tree thinning (logging) nor in developed areas. Any new logging roads in the Sierra and in Yosemite would be detrimental to ecosystem health. Each new road creates serious impacts (See the report on Roads in the Sierra).

Response: No new roads, or road widening, are proposed in the DEIS.

Concern #137a: The National Park Service should not allow construction of logging roads.

Letters: 113, 109,

Response: See #137.

Concern #138: The National Park Service should not allow thinning in wilderness.

Letters: 8, 82, 11, 10, 51, 114, 14,

Letter Number: 82

Comment: Other than within the 300' buffer zone, CSERC strongly opposed the use of any chainsaws or other mechanical treatments within wilderness areas. The use of chainsaws is not necessary --- only convenient, in such areas.

Response: No mechanical thinning to meet forest restoration target conditions is proposed for any wilderness area in Yosemite. Some mechanical fuel removal, done with chainsaws for fire protection, may be done in the Wawona area where designated wilderness is immediately adjacent to homes. Chainsaw use in wilderness with regard to fire management is limited to preparation of firelines for the management of prescribed and wildland fires.

Concern #138a: The National Park Service should modify the Wawona WUI boundary so that it includes no wilderness.

Letter Number: 117

Comment: Based upon our review of the maps presented in the draft EIS, it is our understanding that five out of six WUIs delineated by the Park Service hold no existing wilderness within their boundaries (El Portal, Yosemite Valley, Hogdgon Meadow, Yosemite West, and Foresta). In the remaining area, Wawona, the map depicts approximately one-half of a square kilometer of existing wilderness falling within the WUI boundary. How was the WUI boundary determined in Wawona and why did the agency choose to delineate the WUI so that it includes wilderness? We recommended that the agency avoid the controversy of logging within wilderness by re-delineating in Wawona WUI so that its boundary coincides.

Response: Response: the WUI boundaries were selected as logical places where fire managers could modify fuels in locations where such modifications could be expected to mitigate wildland fire behavior. The DEIS has been modified to clarify that mechanical thinning for the restoration of target conditions will not be done in the wilderness next to Wawona, although thinning of small trees followed by pile and prescribed burning may be used to meet fire hazard clearance requirements next to homes. Under the FEIS, no mechanized vehicles will be used in wilderness for mechanical fuel reduction, nor will equipment "reach over" along the boundary from non-wilderness into wilderness areas for fuel removal.

Concern #138b: The McCauley Ranch area should not be included in wilderness because of the need to respond to fires

Letter Number: 131

Comment: Recent proposals to add more Wilderness areas on the Western boundary of the Park would complicate dealing with fire danger. The McCauley Ranch and Crocker Ridge lands are separated from the present Wilderness area in the Park and designating them as Wilderness would only add complexity to fire management. In my opinion, these areas do no meet the minimum requirements for designations. The Board of Supervisors took action recently to strongly oppose the designation of more Wilderness areas in Mariposa County. I would hope that your recommendation of the suitability assessment of these areas was to not designate them as Wilderness.

Response: McCauley Ranch wilderness suitability will be assessed in a separate process; it is not within the scope of the YFMP/EIS. This comment, however, will be shared with the team responsible for initiating the wilderness suitability study.

Concern #139: The National Park Service should better explain why some upper montane forest is within the Fire Use Unit and some is within the Suppression Unit, and why different treatments are proposed.

Letter Number: 70

Comment: Much of the upper montane forest lies within the proposed managed wildland fire unit. Why should a naturally-ignited fire yield a "natural" result if a century of fire suppression really has created an unnaturally large accumulation of fuel? Has the EIS been alarmist?...misleading...blind to the stand-killing potential of al the alternatives considered? Would not low-intensity prescribed burns better cope with an unprecedented fuel buildup? Consider Lost Valley. Their hearts gutted by repeated ground fires, many of the largest cedar in Lost Valley now stand precariously on mere legs of bark and phloem. Is this what Alternative D seeks to achieve? If not, how is it to be avoided?

Response: See response to Concern #63. In some cases, more remote stands of chaparral have burned without significant influence from fire suppression, especially prior to the use of aircraft in the 1960's. Chaparral below or near communities will be managed differently than chaparral stands in more remote locations. All alternatives seek to avoid damage caused by unwanted wildland fires; to the extent that Lost Valley cedars have been burnt by unnaturally intense wildfires, or by groundfires set through human carelessness, the alternatives propose methods to mitigate the damage caused by such fires.

Concern #140: The National Park Service should utilize thinning to protect the Sequoia groves.

Letters: 82, 33, 84, 71, 134, 123, 67,

Letter Number: 82

Comment: CSERC strongly supports doing thinning logging, biomass removal, or similar treatments around/outside the Sequoia groves if it is deemed essential to protect the groves, but that should NOT include mechanical treatments within the groves themselves.

Response: The NPS agrees that thinning outside the groves could help mitigate some of the fire potential within the groves, but not all of it. Prescribed fire will be the tool for managing fuels and performing ecosystem restoration within and surrounding the groves. No mechanical work to restore forest target conditions is proposed for the groves. If prescribed fire does not achieve target condition objectives, an environmental assessment would be provided for public review before any mechanical thinning was done in the groves.

Concern #140a: The National Park Service should utilize hand thinning only in Sequoia groves.

Letters: 113, 98

Letter Number: 98

Comment: In wilderness areas clearing of ladder fuels (primarily brush and duff - lateral fuels - so as to reduce the risk of fire getting in the canopy) should only be done by hand removal to protect the soil and wilderness characteristics.

Response: See response to Concern #140. Also, the letter of concern addressed thinning in the wilderness, where hand thinning of lateral fuels should be the only mechanical method utilized, and this generally in support of prescribed or wildland fire management activities. This FMP/EIS states that under the preferred alternative (D), wildland fire would be the primary treatment used in wilderness. Hand cutting, pile burning, and the use of prescribed fire would be the secondary tools to accomplish fuel reduction work in the designated wilderness, generally to protect backcountry developments and to check fire spread when needed, such as for smoke management. Limited passive reduction techniques would be used along roads and utility corridors, but all heavy mechanical equipment would remain outside the wilderness boundary. Use of equipment would have to meet the minimum tool requirements for wilderness." (page 2-39, FMP/DEIS). Passive reduction techniques (from Table 2.6) would include Yarding; Hand cutting/piling; Cutting/chipping; Low-impact skidding (single person, horses or ATV's with a fetching arch); Girdling; and Limb removal. These activities would be mostly concentrated along WUI communities, WUI/Wilderness boundaries, and Park boundaries.

Concern #141: The National Park Service should insist that structures be built/maintained according to firesafe standards.

Letters: 6, 116,

Letter Number: 6

Comment: Protecting developments, sacrificing grand-old trees, seems to be a ludicrous goal. Structures must be first designed to withstand low-intensity natural fires, and we see no fire management plan addressing this goal. For example: CDF urges home-owners to "seal the undereaves and make the attics airtight" (the video "Firesafe: in and out). Does the Fire management Plan address this simple prerequisite well-known to 100's of home-owners in California? No, it doesn't. The plan is fatally flawed. Making developments firesafe should be the nation's and park's first priority. The second priority is to control the fire's intensity by removing dense ground brush.

Given fire-intensity levels of 1,2, & 3, Yosemite should require all structures in its domain to withstand first and second degree fire-intensity wildfires. Yosemite should reduce fuel-loading to prevent third degree burns.

Logging will not make structures firesafe, and logging of large trees will not reduce fuel-loading on the ground. What does logging do, then, for fire control?

Response: We agree that maintaining buildings in a firesafe condition greatly enhances their chances of surviving a wildfire. Many buildings in Yosemite, including historic buildings, have shake roofs and other features that pose a problem to their defense. The fire management staff is working with project planners to ensure they are aware of code and design features which should be included. The retrofitting of existing buildings requires the prioritization and availability of construction funding which is outside of the fire management program. Nonetheless, the removal in the vicinity of buildings of vegetation which can carry a flaming fire front has also been shown to be a critical component in the protection of any building.

Concern #142: The National Park Service allows wood collection as a means of reducing fuel loads.

Letters: 31, 19, 4,

Letter Number: 31

Comment: It would seem obvious that if you wish to clear an area of most fuel you could post conspicuously signs such as : "FREE WOOD GATHERING AREA; TAKE DEAD WOOD ONLY DO NOT USE POWER TOOLS". Yellow danger tape could be used to mark those areas which are off limits. Dead trees could be removed prior to the posting to avoid that hazard. Areas not adjacent to campgrounds could also be posted and information on their locations could be given to campers. This program would both get rid of the fire hazard and be good public relations as the campers would thank you for the source of wood. This could be the MOST inexpensive solution to your problem and could easily be "spin doctored" to thank the public for helping with your program to reduce the fire danger. This wold be much more popular than any other program which might remove the wood rather than make it available the visiting public. After this measure had been in effect for a time you could attempt to use managed fire to remove any small twigs which remain.

Response: Wood collection of dead and downed material for firewood is allowed in Yosemite National Park in all areas except Yosemite Valley, giant sequoia groves, and elevations above 9600 feet. This information is published in the Yosemite Official Map and Guide, which are distributed to visitors at the entrance stations. Chainsaws are not permitted for wood collection outside the established woodyards. The effectiveness of the public gathering firewood is evident around the perimeter of many of the campgrounds. By mid-summer, a useable fuelbreak around the campgrounds has been created by campers gathering wood. This FMP/EIS does nothing to change the existing policy.

Concern #143: The National Park Service should burn the debris piles that currently exist in some wildland urban interface areas.

Letters: 113, 88, 129, 116,

Response: Agreed. Over the past two years, approximately 8000 debris piles have been burned in Yosemite. Some piles, because they were constructed of green vegetation late in the fall, must cure out during the winter and following summer because they simply are not flammable until they dry

out. Lighting "green" or wet piles requires more fuel (a gasoline and diesel fuel mixture) and creates more smoke, as well as an inefficient use of personnel time.

Concern: #143a: The National Park Service should factor in the risk associated with leaving debris piles unburned or using equipment in WUI.

Letters: 113, 8,

Letter Number: 113

Comment: Since NPS lacks personnel to manage prescribed burns for existing debris piles, the conclusion that there is a lower potential for catastrophic fire in the treated areas is erroneous because it does not factor in the potential timeframe (years) in which debris piles could stand untreated, and the plan does not accurately forecast the risk or danger created by these activities.

Letter Number: 113

Comment: Wildland/Urban Interface areas with human populations should be protected. Currently, there are hundreds of debris piles that ring Wawona from Spelt Road to an area locally known as the Grotto, to Chilnualna Falls, across the bridge and to the end of the road. These piles have been on the ground for two summers, and if they were to catch fire, it is obvious catastrophic conditions could occur rapidly and wipe out this community. The wood and debris are dry, and the piles are within feet of one another on a carpet of forest litter. The National Park Service does not have fire personnel or equipment to handle a massive wildfire in Wawona, especially a fire created by a heavy fuel load of debris piles. Before NPS creates any more ground debris it should take care of the piles it has already created, and reduce the risk for catastrophic fires.

Response: See response to Concern #143 concerning timeframes for pile burning. The piles referred to in letter #113 were burned during the fall and winter 2002-2003, after they had sufficiently dried out and when 2002 fire season had ended.

Burn piles are usually located under openings in the forest canopy to minimize scorch on remaining trees. This technique will also help to avoid fire traveling into the upper canopy, which is one of the main objectives of the hazard fuel reduction program. While it is true that piles may be accidentally ignited at an unscheduled time, the NPS believes the risk from the piles burning is less than if the fuels were left in place. After a thinning operation has taken place, and before the piles are burned, there are islands of concentrated fuels (piles) in a sea of much sparser, lighter fuels. A fire occurring in the sparse fuels would spread slower and have smaller flame intensities, making it easier to control.

It is the intention of the NPS to have piles disposed of within 18 months of their construction. The reduced fuels in the areas surrounding the piles mitigate the added risk posed by piles remaining intact for this period.

Concern #144: The National Park Service should utilize outside resources in the suppression of fires in Yosemite, before they become uncontrollable.

Letter Number: 113

Comment: These three wildland fires demonstrate the range of potential devastation that has occurred, and can occur in the future, given Yosemite's short supply of trained fire personnel, NPS's current fire management policies, and limited fire management resources in California and nationwide. While fire personnel from the National Forest Service and the California Department of Forestry can respond to major wildland fires in Yosemite, they must have an invitation first from Yosemite's National Park Service. The current practice is for Yosemite's NPS fire personnel to attempt to assess/address the situation with their resources first. However, fire units outside Yosemite's borders cannot "come to the party" without their invite. An exception occurs when the threat is to structures; Mariposa County Fire Personnel can come into the Park to assist NPS.

This NPS "we got it handled" machismo mentality does not work and should be abandoned in favor of fire policies that require Yosemite National Park Service to engage all available resources before wildland fires become uncontrollable. Given projected debris fields and slash piles to be created by mechanized timber extraction activities alone, as proposed by this plan, the potential for future catastrophic fires will increase exponentially each year.

Response: The Yosemite fire management program is part of the interagency fire community and is able to utilize suppression resources as the need arises. Almost all unwanted wildland fires are contained at the initial attack stage, generally within 48 hours of detection. Fires which are not contained at this stage are analyzed using the Wildland Fire Situation Analysis used by federal agencies. Additional resources, and if warranted, an Incident Management Team, are ordered. As experienced by all fire agencies, a specific combination of weather, fuels, and topography will result in a very few fires in Yosemite becoming very large and resistant to control in spite of the best efforts by firefighters.

Concern #145: The National Park Service should add or modify prescribed burn units in Wawona Section 35, to include previously unidentified areas.

Letters: 106, 85, 129,

Letter Number: 106

Comment: The NPS has acquired numerous lots in the Wawona area Section 35. Some lots are vacant and some have uninhabitable structures. Many of these lots are overgrown with trees and covered with burnable fuels (needles, trees, etc). Many are next to fire-safe private homes. These lots need to be included in an appropriate burn unit. Particular areas I know of that desperately need cleanup include the area below Forest Drive near the SDA camp (Mariposa County Map Bk 10-pg 280) and your lot on Koon Hollar Road Bk 10-pg 270 lot 7 that is enclosed by the Telaro, Thompson, Ortiz and Wood lots.

Response: The NPS-owned areas within Section 35 of Wawona are mostly small-sized lots adjacent to structures. Each lot will/has been assessed for fire hazards and will receive an appropriate treatment, either mechanical or prescribed fire. The number of NPS-owned lots and checkerboard pattern in Section 35 makes it difficult and redundant to identify each individual lot as a burn unit, so the entire collection is lumped under the general project title "Wawona WUI."

Concern #146: The FMP/EIS should clearly state where the impacts of mechanical equipment would occur.

Letter Number: 113

Comment: Based on the description of the machinery, the destruction will be extensive and the impacted areas will take years, if not decades, to recover. To be clear, the plan should state that these machines will destroy over 4,000 of the proposed 7,664 acres to be treated. As it reads now, plan working is deceptive as heavy machinery will be used extensively in wildland areas where timber harvests are less likely to be witnessed by the public.

Response: the impacts of mechanical treatment to achieve vegetation management targets would principally occur within ¼ mile of the six wildland urban interface communities in the park. Mechanical work may be done in the ¼ up to 1 ½ mile outer WUI area around these communities, but only after prescribed fire has been shown to be unable to attain target objectives, and only after the preparation of environmental compliance documents. No such work would be done in wilderness, but would be done near developments, with access provided by existing roads.

Concern #147: The FMP/EIS should include more explanation of the 3 large fires that have occurred in the park's history.

Letter Number: 113

Comment: In the draft Fire Plan, NPS Fire Plan writers excluded an historical analysis of three major wildfires fires. It is worth noting that decisions made by the National Park Service based on "let it burn" fire management policies contributed to the vast devastation of these fires. This analysis should be provided to the public. In particular, the Arch Rock fire was mismanaged in its earliest stages as several aircraft loaded with fire retardant were turned away by Yosemite's Superintendent instead of being allowed to extinguish this fire. The Arch Rock fire destroyed the Foresta community and thousands of acres of Yosemite National Park.

Response: The three fires in question, Steamboat, Arch Rock, and Ackerson, were classified as unwanted wildland fires from the moment they were detected. None of these fires received consideration to be, or were ever treated as, wildland fires that could be allowed to burn. The three fires exemplify the increasing severity of unwanted wildland fires, and the DEIS describes treatment methods which are envisioned as mitigating the severity of future wildland fires.

Concern #148: The FMP/EIS should have more information on the cost and need for the helibases described.

Letter Number: 4

Comment: Wawona Helibase, I think it is a good idea to have clear parking for this area. El Portal Helibase, actually I would have to see this one as well as the Crane Flat one to see what actually is occurring and if it is necessary upgrading the 3 helipads should have the cost built into it and reported in the Draft of the plan. It seems that in order to rebuild a new pad at Crane Flat there would be a proposal to remove the existing one and the costs of that included. I would like to know about currency training on towers, page 2-33 of the draft of the plan. Wouldn't constructing these towers also conflict with the General Plan? Again it would be nice to include the costs of this project and while you are using old steel beams, how much will a contractor charge to erect them? What is currency training and for what purpose? To keep current on what skill? Firefighting, rappelling in a fire, since there will be no tower in a forest fire, maybe actual practice would be better since they will be using the helicopters anyway? Maybe some alternatives could be drafted, currency training with helicopters only, currency training on the tower only or a combination of currency training with tower training. I like the last choice best. Since we don't know the cost of helicopter training or the cost to erect the beams we cannot tell in the long run which choice is better.

Response: The El Portal and Crane Flat helibases involve relatively minor upgrades, costing approximately $9,000 and $14,000, respectively. Much of this cost is for transporting and leveling fill material to enlarge helipads into safer configuration. The Wawona helibase is the planning stage, with approximately $35,000 needed for an archaeological survey of the proposed area, and approximately $10,000 planned for construction labor and materials.

Concern #149: The FMP/EIS should include more information on the impact of temporary helispots, created during fire incidents.

Letter Number: 111

Comment: Your commented on the needed to improve the permanent landing sites of helicopters used in both fire and rescue, which is only right both for the safety of the crews, and people on the ground. But no comments were made about developing summer sites (no permeate facilities other then clearing) for use by fire strike forces or rescue personal.

Response: Helispots are generally not constructed for fire management operations in wilderness. Existing bare areas, such as meadows and rock domes are used. Rappelling is also done to lower firefighters down to fires. If unimproved helispots are needed for the management of large fires, tentative sites would be identified and reviewed by natural and cultural resource management specialists who would identify sensitive resources, if any, in the area of the proposed helispot.

Concur #150: The National Park Service should recognize that lightning ignited fires alone can accomplish the role of restoring natural fire regime.

Letter Number: 63

Comment: Given the lightening strike density for one year - as shown in Map 3-1 - it is remarkable that there have not been more catastrophic fires over the thirty year period. Park employees tell us that there are many more lightning-strike fire events than those shown in Table A-6-3. These are fires that accomplish their ecological functions without need from management and that most of the time they self-extinguish. It appears that these -- in concert with the proposed "Prescribed Burning Program" and the anticipated "Managed Wildland Fires" - will adequately accomplish the objective of restoring the natural fire regime to these fire-adapted forests, without the need for aggressive thinning of large trees. These data confirm the impression, the fire management since 1970 has indeed successfully mimicked the role of natural fire.

Response: The DEIS agrees with this statement in the Fire Use Zone, 83% of the park. In the Suppression Zone, a combination of more resources at risk, higher departure from median FRID and the three examples of catastrophic wildfires (Arock, Steamboat and Ackerson), lead us to believe that treatments with prescribed fire and thinning are needed before we can safely let fire resume its natural role. It is the ultimate goal of this fire management plan to increase the acreage in which we can safely use wildland fire for resource benefit.

Concern #151: The FMP/EIS should provide more information on what a burn unit represents, and how they will be used.

Letter: 70, 88,

Letter Number: 70

Comment: Maps 2.6 through 2.15: What does "burn unit" mean? Do the mapped burn units merely indicate the areas potentially subject to prescribed burns? Do they represent the size of individual burns? Potentially of general interest are the burn frequency (or interval), burn season, and the size of individual burns or of a single year's contiguous burns. Not all these issues were thoroughly addressed.

Response: While Appendix 6 lists which burn units will be treated in a given calendar year from now until 2008, there are many factors affecting ability and decision to implement a prescribed burn project, so the schedule can best be viewed as “tentative.”

Issues that drive the size and timing of a burn project are focused in four arenas: fire behavior and weather; funding and staffing; resource concerns; and air quality. Air quality is and remains the most limiting factor on size and scheduling of burns. Permission to burn must be granted from the local air quality management district, with concurrence and collaboration from the State of California Air Resources Board. For example, in the fall of 2002, Yosemite attempted to complete a 7,288 acre prescribed burn, called PW-3 Gin Flat. After 10 days and an ever-growing number of complaints, the local air district requested that Yosemite suppress or significantly reduce

emissions from the Gin Flat prescribed burn. This required managers to stop the unit at the halfway mark, for a total of 3517 acres burned out of the proposed 7,288 acres. The rest of the unit will be burned in several segments.

Until the public's tolerance of smoke changes, it is highly likely that management-ignited prescribed burn projects at Yosemite will be less than 100 acres per day and no more than 7-10 days in duration.

It is the intention of Yosemite National Park Fire Management to treat with fire (e.g., wildland suppression fires with acceptable results, prescribed fires, and wildland fire use) about 16,000 acres per year. This is the average amount of acres that burned every year in Yosemite before fire suppression occurred. In some years, especially if it is a severe fire season, that amount could be doubled (25,000 acres burned in 1990 during the A-Rock and Steamboat wildfires) or even tripled (47,000 acres burned during the 1996 Ackerson Fire). Other years, because of wet weather or some of the issues mentioned above, the total acres treated could be significantly less than 16,000. Due to the uncertainty of many factors affecting prescribed burn projects, "tentative" is a good word to describe any long-range prescribed burn planning schedule.

To conduct a prescribed fire, an extensive "Prescribed Burn Project Plan" is written and reviewed by Park staff representing fire management, resource management, and visitor protection. This is an implementation plan that lists all the management actions that must be implemented, as well as who is responsible. Once this plan has been reviewed and recommended by Park staff, the Park Superintendent has the final decision for approval. This planning, review and approval process can take 1-3 months. And even though the Park Superintendent has approved the project, the ultimate say on whether or not a particular project can take place on a scheduled day is the province of the air quality regulators. This approval or permission to burn from the air quality regulators is granted the afternoon before a prescribed burn, giving the burn manager about 15 hours to do the final notifications and resource ordering. Approval from the air quality regulators may be delayed for days because it is dependent on the atmospheric conditions of the surrounding airshed.

Concern #152: The FMP/EIS should include more information on the constraints to burning, including self-imposed and regulatory.

Letter Number: 82

Comment: Some important information is missing from the document, which constrains the options that the public can identify. For example, the Park currently strives not to burn on weekends. Allowing far more burning to take place on weekdays not only adds to the window of timing, but it also increases the ability for the Park to start a project and to keep it going until completion (rather than shutting it down or holding off on completion until after the weekend. CSERC urges the Park to get realistic about getting rid of all the minor reasons that interfere with large scale prescribed burning… and to implement it on a far more aggressive basis.

Response: The more aggressive restoration of fire to park ecosystems will require more innovative techniques as well as an examination of past practices that have limited this restoration. The concept of adaptive management will be used to develop and implement

methods which reduce the risk of unwanted wildfires while mitigating, for example, the impact of smoke on the public through timing of ignitions and size of burn block. Additional methods will include improved community outreach and public education to build support for a more aggressive program.

Concern #153: The final FMP/EIS should indicate the number of acres hand-thinned in Wawona in the last 5 years.

Letter Number: 114

Comment: How many acres were hand-thinned with chainsaws in Wawona over the last five years?
Please include this data in the Final Fire Plan.

Response: The acres of hazard fuel reduction accomplished in the Wawona area for the past five years (1998-2002) are:

2002	147 acres
2001	118
2000	98
1999	93
1998	93
TOTAL	549 acres

The total above captures all hazard fuel reduction (thinning, piling, raking, mowing)

activities. Also, approximately 93 acres per year are routine annual fuels maintenance and defensible space for structures within Wawona. Of the 549 acres, approximately 277 were accomplished by hand thinning (3600 piles burned divided by an average of 13 piles per acre).

Concern #154: The National Park Service should conduct its prescribed burning is such a way as to allow for recruitment in stand populations.

Letter Number: 63

Comment: We have been told that this site is "atypical" (extremely productive) and the calculated basal area (385 sq. ft./ac.) confirms this. It is puzzling to us that this "atypical" site was chosen to illustrate the proposed treatments. Also, of concern is the number of standing-dead-trees and stumps (11 and 3 respectively) included in the proposed remnant Plot. At a Plot area of 0.4017 acres, this translates to 27 standing-dead-trees and 7.3 stumps per acre.

Table C.4 - Attachment - C (file Att_C-4, *.xls), indicates that the retained live trees will be only 67 per acre. Thus, there will be 40% as many dead trees as live

trees in a typical treatment zone. We appreciate the importance of retaining snags for wildlife habitat, but this proportion of dead to live seems unnatural to us. Since the site will be maintained with fire alone after the initial treatment -- and treatment with prescribed fire should be repeated two more times to be effective -- the opportunities will be slight for growth of replacements for intermediate and mature trees as they become decadent and die. We suggest that - following the three prescribed fire treatments - subsequent treatments be deferred at least one FRI, to permit survival of some new growth by the "patchiness" of natural fire (as mimicked by the Rx treatments).

Response: We agree. After the first prescribed fire in an area like the one used for the demonstration site, there will be a flush of germination and establishment of trees. Subsequent burns due to the patchy nature of fire will kill not all of these trees. This will allow regeneration and develop a forest with a patchy uneven aged structure.

Concern #155: The FMP/EIS should indicate who outside contractors might be.

Letter Number: 4

Comment: …alternative B, Aggressive Action there is no mention of who the outside contractors might be? I would like to know in advance who the National Park Service has in mind to carry out this massive task.

Response: Any contracts awarded by Yosemite National Park are subject to the Federal Acquisition Regulation (FAR) and the NPS Director's Order 20. Both the law and the policy spell out what is and isn't permissible for contracting in Yosemite. To answer the above concern, the correct answer would be "Anybody or any company willing to do business with Yosemite National Park who can provide best value for the intent of the contract."

It is likely that a number of contractors would be employed at Yosemite National Park to do fuels management work. One intention of the National Fire Plan is to find or develop contractors in the local area surrounding each federal property. Yosemite Fire Management has already started trying to find interested individuals and companies to do fire hazard fuels work. Interested parties are encouraged to contact the Yosemite Contracting Office or the Small Business Administration.

For the 2003 fire season, it is expected that two contracts will be awarded. One will be given to the California Conservation Corp, a state agency that helps promote natural resource careers for young adults. The other contract will probably be awarded to a minority-owned local contractor who is registered with the Small Business Administration and has successfully completed contract work for several of the National Forests surrounding Yosemite.

Concern #156: The FMP/EIS should indicate the effects of reburns in its prescribed burning activities.

Letter Number: 135

Comment: The DEIS discloses that some areas have been reburned several times. (pg. 3-9) This is one of the most controversial issues in fire management. Question: what have been the effects of reburns? Has it resulted in deforestation?

Response: We are currently working on looking at the monitoring data for areas that have been prescribed burn more than once. This data will help us look at the potential transition between restoration and maintenance targets and help us to further refine our target conditions. In some areas of the park, like the Aspen Valley burn units, we believe we have achieved our restoration objectives and will now burn based maintenance targets. Such areas may reburn many times without drastic shifts in ecosystem characteristics.

In general, wildfires of unnatural severity have caused deforestation in the park. Portions of the Steamboat fire along Highway 41 and the A-Rock fire along Highway 120 have been converted from forests to brushfields. Given enough time without another wildfire, the areas may succeed back to forests. The sudden conversion of one ecotype to another, on a landscape-scale, due to a catastrophic wildland fire, is one deleterious effect the EIS/FMP seeks to avoid through hazard reduction activities.

Concern #157: The FMP/EIS should indicate whether prescribed burns or re-ignitions would be superior to accomplishing overall objectives.

Letter: 70

Comment: I applaud your rationale for suppression and later re-ignition of managed wildland fire, but shouldn't a prescribed burn be inherently superior for meeting your overall objectives than simple re-ignition?

Response: The re-ignition of a wildland fire which was suppressed is, by policy, a prescribed fire. The pattern of ignition would approximate that of a wildland fire, guided by computer models which predict how the wildland fire would have acted if it had been allowed to burn. For example, fewer points of ignition might be used relative to a more typical hazard fuel reduction burn, allowing the prescribed fire more opportunity over time to create a mosaic of fire effects, much as a natural wildland fire would do.

Concern #158: The FMP/EIS should indicate whether emergency fuel reduction measures, such as salvage logging, would be used in Yosemite.

Letter 135

Letter Number: 135

Comment: The reference to emergency fuel reduction is unclear. (pg. 4-15) On past wildfires (e.g. the Big Bar Complex) the USDI used "emergency fuel reduction" to log commercial-grade trees while the fire incident was still active. Question: is this a specific program for emergency fire salvage logging in the USDI? What kinds of EFR activities would occur within Yosemite?

Response: The removal of trees killed due to an unwanted wildland fire can be done if they pose a threat to human life and property. Individual trees on a small scale can be removed much as tress are currently removed under the Hazard Trees program. Groups of trees on a large scale, such as were killed due to the Steamboat fire in 1990 near Yosemite West, can be removed following the preparation of environmental compliance documents, which are subject to public review and comment. Other emergency rehabilitation activities might include installation of check dams and hay bales for erosion control, trail repair, stabilization of damaged building, and inventory and monitoring of sensitive cultural and natural resources.

Concern #159: The National Park Service should not suppress fires in Yosemite National Park

Letter Number: 40

Comment: Yosemite's current plan is justified on grounds that it may suppress fire. This is peculiar logic. With its currently proposed Fire Management Plan, Yosemite openly acknowledges that previous fire suppression policy has, along with other factors including changes in global circulation of water triggered by global warming, created risk of dangerous forest fires. While disclosing this now well-documented risk of fire suppression, you would nevertheless embark on a policy of fire suppression, as if fire suppression does not create risk. It is difficult not to notice some comic aspects to this peculiar logic.

Response: For 2/3's of Yosemite National Park, Wildland Fire Use is the primary option for managing wildland fires. Fire has, and will continue to have, a natural role as one of the main agents in the ecosystems. There will be times, because of air quality concerns or threats to escape an approved project area, that some wildland fires in the Fire Use zone will have to be suppressed or restricted.

For the western 1/3 of Yosemite National Park, uncontrolled wildland fires pose a risk to life or property within and outside the Park boundaries. Where as the east side of the Park is mostly granite rock, an effective barrier to fire spread, the west side is a layer of nearly continuous fuels leading to the San Joaquin Valley. Neighboring communities and cooperating fire agencies would be very concerned (and rightly so) if Yosemite did not take actions to prevent or control wildland fire from spreading out of the Park and into their communities.

As fire management understanding increases, and projects near the west side are completed, it may be possible in the future to expand the Fire Use zone westward.

Concern #160: The FMP/EIS should include the costs for future staffing and housing, and the potential for finding qualified personnel.

Letter Number: 62

Comment: The three action alternatives, B, C, and D all involve substantially more staffing, yet the FMP ignores the future cost, housing, and the availability of qualified personnel.

Response: Staffing for the fire program for all alternatives is not envisioned to increase significantly beyond the current level. Federal fire management funds are not expected to

increase significantly, and much of the fuels management work in the wildland urban interface area is expected to be contracted. Housing and office space issues are addressed in the scope of other park documents such as the Yosemite Valley Plan.

Concern #161: The FMP/EIS should indicate whether funds are available/guaranteed for monitoring.

Letter Number: 8

Comment: Are funds guaranteed to be available for monitoring? Other federal agencies have had trouble with this.

Response: The fire effects monitoring program has been in existence for as long as prescribed fire has been used in Yosemite. While subject to budget uncertainties, as are all federal programs, the fire effects monitoring program is expected to continue for as long as prescribed fires are conducted.

Concern #162: The National Park Service should consider additional measures of residual trees in treatment areas, such as basal area.

Letter Number: 120

Comment: Please have staff consider some additional measure of residual trees in treatment areas, such as basal area.

Response: The wide ranges of desired density and frequency by species composition are intrinsically based on the sizes of trees and the range of natural variation of stocking. Adaptive management techniques may be used to link a range of basal areas to density and frequency, as more research is conducted on their relationship.

Concern #163: The National Park Service should find ways to conduct fire management activities with a minimum of fuel consumption.

Letter: 62, 114,

Letter Number: 62

Comment: In reference to oil-based fuel consumption, i.e, saws, motor vehicles and drip torches, in all of the action alternatives, NPS staff must always find a way to accomplish the objectives while using less fuel. One example is pile burning where in fact it can be more efficient and easier to ignite slash piles using burning embers and coals, rather than wasting more fuel from a drip torch. Currently there is no incentive to minimize use of fuels.

Response: Allowing some wildland fires to burn, or reducing hazardous fuels with prescribed fire, will reduce the expenditure of fuel because large, unwanted wildland fires are less likely to occur. Such fires cost large amounts of money to suppress, and usually involve hundreds or even

thousands of fire personnel in the effort. On a smaller scale, once a few piles are ignited, wildland fuels can be added to these piles to keep them burning, rather than igniting many separate piles individually with drip torch fuel.

Concern #164: The FMP/EIS should include more information on the effects of fire suppression activity, including equipment use.

Letter Number: 135

Comment: Information on the environmental effects of fire suppression and holding actions are scattered throughout the document, but could be grouped into a single section. More analysis and disclosure of the "lasting impacts of suppression actions" (pg. 1-15) is needed under all alternatives. We disagree with the statement that "emergency fire suppression actions and their immediate effects are beyond the scope of this document and will not be evaluated." (pg. 1-26) We do not believe "the range of emergency suppression actions. would be too broad, speculative, or conjectural to lend themselves to meaningful analysis." (pg. 1-26) This document is, after all, a Fire Management Plan, and it is replete with references hinting at environmental impacts (e.g. "Impacts from actions to suppress fires would be most intense under this alternative" pg. 4-46), and therefore they must be within the scope of analysis. If the DEIS can offer speculative statements on the effects of another future A-Rock fire, then it should provide disclosure of standard suppression techniques and their general environmental impacts in the FEIS. This disclosure will help the Park make a better case for proactive restoration activities, including mechanical thinning, in order to allow more wildland fire use and avoid unnecessary aggressive suppression operations.

Response: The document is not the Fire Management Plan, but rather the EIS for this plan, which will be developed following the Record of Decision. The emphasis on the plan was mitigation of the many deleterious ecological effects of unnaturally severe wildland fire, as well as describing the effects of excluding fire of more natural intensities from ecosystems which have evolved in its presence. The risk to public safety and communities, and the mitigation of this risk, is also a cornerstone of the EIS/FMP. We agree, however, that fire suppression activities can also have negative impacts. Some of these will be listed in the mitigation actions for species of concern which was developed for the FEIS. Others, such as the restriction on the use of dozers for suppression activities and the inspection of vehicles for weed and weed seed, will appear as management practices in the FMP. The final FMP will also feature extensive use of the Wildland Fire Situation Analysis, which is a tool to assist managers in the selection of a strategy which best blends safety, ecological, and economic considerations.

Concern #165: The FMP/EIS should include information on the economic impacts to communities.

Letter Number: 130

Comment: Conspicuously absent from the analysis is the economic impact to local communities. If the park or any of its facilities closed due to fire, the economic

loss would be great to surrounding communities. From last minute supplies purchased by visitors to hotel taxes, the communities receive an economic benefit from a healthy park.

Response: Please see *Potential Indirect Effects* under *Local Communities*, in Chapter 4, *Environmental Consequences, Social Environment*, and particularly the analysis for the No Action Alternative on page 4-109 in the DYFMP/EIS.

Concern #166: The FMP/EIS should include measures to protect cultural resources and historic buildings from fire.

Letter: 13, 61,

Response: Measures to protect cultural resources and historic buildings are generally described in Chapter 2, under Mitigation Measures – Cultural Resources (2-48) in the draft EIS. More detail on protection measures is provided in Chapter 4, Environmental Consequences, in the following sections: Mitigation of Impacts to the Cultural Environment, Archeological Resources, Ethnographic Resources, and Cultural Landscape Resources, Including Individually Significant Historic Sites and Structures (4-14 through 4-18).

Concern #167: The following word choice should in the draft FMP/EIS should be corrected.

Letter Number: 135

Comment: There is a word choice error on pg. 3-17. The word, anthropocentric, means human-centered, and is a popular concept used in the literature on environmental philosophy. The FEIS should use the word, Anthropogenic, which means human-caused, and is commonly used in reference to landscapes or ecological conditions.

Response: Anthropogenic has replaced anthropocentric.

Concern #168: Fire and vegetation management treatments would impact the park experience.

Letter Number: 59

Comment: Removal of logs from the park should be kept to an absolute minimum. If any are removed, the impact of logging trucks on the environment and the park experience should also be included in the draft statement.

Response: We agree that removal of logs from the park should be kept to a minimum. Thinning activities will be limited to areas within and adjacent to the six WUI communities in the park, as well as road corridors and under utility lines in the Suppression Unit. Outside of these areas, there

should be little or no impact on park visitor experience from mechanical thinning activities. It is expected that most woody material, including logs, will be burned or chipped on site, or used for administrative purposes such as fences. The surplus amount that will need logging trucks for removal should be small, since both the rate and location of thinning can be altered to largely eliminate the buildup of such a surplus of material of this size.

Concern #169: Fire and vegetation management treatments would not impact the park experience.

Letter Number: 141

Comment: I have no doubt that these treatments can be carried out in a manner, and at a time that will in no way impair the quality of experience that the visitor has come to the park for.

Response: See response to Concern #168.

Concern #170: Smoke from fire management activities would result in persistent impacts.

Letter Number: 70

Comment: 4-183: Smoke from managed wildland fire will impact recreation throughout the area from which it can be seen. If individual smoky fires persist or subsequent fires replace them, the cumulative effect is persistent, not short term.

Response: For purposes of the draft FMP/EIS, parameters for short-term air quality impacts were defined as: "Associated with the duration of a specific fire event." (FMP/EIS page 4-12). For wildland fire use fires, the impacts are considered short-term because: 1) most fire remain small, less than 10 acres; 2) fires that persist and grow larger than 10 acres do so sporadically with varying amounts of smoke generated; and 3) the lifespan of a wildland fire rarely exceeds 4 months.

During the 2002 fire season a lightning fire ignited in the fire use zone west of the White Wolf Development in Yosemite National Park. The fire was named the Wolf Fire and was managed from its start on July 11, 2002 until extinguished by rains on November 7, 2002, with a final acreage of 1971 acres burned. This was the largest individual fire use fire of 2002. Total acres burned for the 14 wildland fire use fires in 2002 was 2557.

During the four months the Wolf Fire burned, the largest acreage growth in one day was approximately 100 acres. Its average daily growth over the four months was just over 16 acres per day. It was the largest fire use fire of the 2002 fire season. There were smoke impacts during the course of the incident, but nothing that could be termed "persistent." Indeed, there were several times during the four months that fire managers thought it had gone out because of the lack of smoke production. Then the weather would warm and turn drier, and it would get more active. Instead of becoming a negative recreational impact, the fire actually began to draw visitors to the White Wolf area, spurred on by a local newspaper's reporting on the opportunity to see a forest fire up close.

Finally, there are many who believe that fire is a natural component of the wilderness and that fire (and smoke) should not be excluded from the wilderness experience. Yosemite National Park hopes to preserve that type of experience for not only for visitors, but also more importantly, for the wilderness itself. However, where smoke becomes a health concern, action will be taken to restrict the spread of the fire.

Concern #171: The FMP/EIS should address traffic impacts and emergency evacuation procedures.

Letter Number: 15

Comment: Three different districts in the Department operate three different primary roads into and out of the park. These are Highway 41- District 6, Fresno; Highway 12- - District 9, Bishop; and Highway 140 - District 10, Stockton. Potential impacts to these state highways, as a result of this plan and its alternative, need to be analyzed and discussed. If mitigation is necessary to lessen, avoid or reduce these impacts, then mitigation also needs discussion. This Fire Management Plan does not address any traffic impacts or outline or discuss any type of emergency/evacuation response plan. The Department has the following suggestions and recommendations:

- Because a catastrophic fire, flood, or other event is possible in Yosemite Park, the Department suggest discussion of how the park administration would respond to such an event and an outline of what procedures and policies are in place.

- Potential impacts to state highway facilities and the mitigation of these potential impacts needs to be discussed. How would the Park Service notify the Department affected districts during a controlled burn, fire outbreak, etc.? How would the Park Service coordinate with the affected districts should smoke or fire create hazardous driving conditions inside and outside the park?

Letter Number: 15

Comment: The Department suggests the development of an emergency/evacuation response plan. This plan should identify emergency/evacuation routes and corridors inside and outside the Park. The Park, the Department, and other local and regional emergency units should develop an emergency response action plan and team. Bridges, parking areas, and roadways should be maintained and retained to provide for effective emergency response both inside and outside the park.

Response: The FMP/EIS discusses generally the impact of unwanted wildland fires on road closures which may arise from catastrophic fire. The park has emergency response and evacuation plans with will be included in the appendices of the final Fire Management Plan, which is the tactical implementation document for the fire management program.

Concern #172: The FMP/EIS should limit the size of the maximum manageable area, for managed wildland fire, to less than 1 acre in the Hetch Hetchy Valley, to protect the San Francisco water supply

Letter Number: 96

Comment: The maximum manageable area (MMA) boundaries in the Hetch Hetchy vicinity should be designated to exclude management fires larger than one acre from the inner gorge. If early assessment of a natural fire in this zone suggests that the incident has the potential to reach several acres in size, appropriate containment measures should be employed. In addition, we suggest that the document include emphasis on protection of the City's water supply as an important, high value resource.

Response: In the FMP/EIS discussion of Chapter Four: Environmental Consequences of the Physical Environment *Watersheds, Soils and Water Quality* for all four alternatives, effects of managed wildland fire are characterized as "beneficial, short-term and moderate." (page 4-299).

The steepness of the slopes in Hetch Hetchy Valley would make it difficult to control an ignition at one acre. In effect, a fire would need to be suppressed immediately after it was detected to keep it under one acre. The suppression actions of line construction (erosion) and retardant and water drops (chemicals) would have the potential to degrade water quality.

In 1999, the LeConte Fire Use fire burned approximately 8517 acres on the northeast side of Hetch Hetchy Reservoir. No long-term adverse effects are known to have occurred. In 1996, the northeast advance of the 47,000 acre Ackerson Fire was halted by the Frog Fire, a wildland fire use event that occurred in 1991. By allowing frequent, low severity burns to occur, the chance of a high severity fire damaging to the watershed can be lessened.

Concern #173: The FMP/EIS should clarify the effect of fire treatments on watersheds.

Letter: 70, 8

Letter Number: 70

Comment: 4-299: You propose fire to control fuel buildup. Yet you state here that "fire would typically burn along ridge tops and upper slopes, with only partial intrusion into slope bottoms and riparian areas". Is not fuel buildup concentrated on lower slopes, lowland flats and riparian areas?

Response: The text in question relates to the impact of managing wildland fire in the Fire Use Unit. It is true that lower slopes, lowland flats and riparian areas contain concentrations of fuel, but in Yosemite the buildups that are most unnatural (considering type of plant community, its fuel attributes, and the natural periodicity of fires) are in mid-elevation mixed conifer communities, and the greatest of these are in the Suppression Unit and along the western edge of the Fire Use Unit. The areas of the park that have been designated as Fire Use Unit are typically within or nearer the natural range of variability for fuel loads, and they also may be in

communities that have longer fire return intervals. Some of the Fire Use Unit is dominated by short-needle conifer types, which don't sustain burning as readily as the long-needle pines because of the compaction of litter and duff. These and other factors result in managed fires that can burn into lower slopes, lowland flats and riparian areas, but typically with more moderate intensity than is seen in the high-intensity fires that occur in areas that are more altered (naturally, shorter fire return interval areas, where fire has been excluded), found in the Suppression Zone.

Concern #174: The National Park Service should reduce fuel loads and minimize the threat of large, stand replacing fires, but should not allow high-intensity wildland fires in Hetch Hetchy Valley, because of the impacts upon water quality.

Letter Number: 96

Comment: We consider catastrophic wildfire to be one of the main threats to water quality in these two watersheds. Therefore, the SFPUC is very supportive of the National Park Service's efforts to re-introduce fire as a viable component of the ecosystem in order reduce fuel loading and minimize the threat of large stand replacing wildfires that can introduce sediment and other contaminants San Francisco's drinking water sources.

Letter Number: 96

Comment: We have some concerns with management fires that create large, intensely-burned areas within the inner gorge of the Hetch Hetchy Reservoir Basin. In terms of potential adverse impacts to water quality, we believe there is little difference between a high-intensity management fire and a wildfire, where large incidents below the rim are concerned. As we experienced after the 1996 Ackerson Complex Fire, these types of events can contribute burned debris and abnormal sediment loads directly into the water supply. This precludes its use for domestic purposes, often for sustained periods of time. If many acres of vegetation buffering the shoreline are destroyed, we've lost the natural barriers that tend to trap and filter material before it reaches the water.

Response: The Ackerson Fire was not a managed wildland fire. It was a wildfire. The team responsible for suppressing it attacked its western edge first, which allowed it to burn up to the rims of Hetch Hetchy Reservoir. The following year—when the great amount of debris came into Hetch Hetchy Reservoir—the (rain on snow) winter floods of 1997-1998 occurred.

We share the concern that fire management activities be undertaken in manner that limits their risk of becoming out-of-control, high severity (catastrophic) wildfires. We also recognize that high severity wildfires can impact water quality. Prescribed fires and managed wildland fires can reduce the likelihood of high severity, catastrophic wildfires. While it is true that vegetation in a watershed buffers surface waters (i.e., it captures sediment, organic materials, etc.), it is also true that as the amount of vegetation and fuel in a watershed increases, the risk of catastrophic wildfire increases as well. Prescribed burning and wildland fire use—though they generally result in near-term increases in sedimentation—cause a lesser loss of the duff layer (compared to high severity wildfire). This helps to reduce soil erosion and supports recovery of vegetation. In contrast to

high severity wildfires, infiltration rates should not be greatly reduced and conditions which cause overland flow of sediment into stream channels are more limited.

Concern #175: The National Park Service should not artificially manage Sequoia groves.

Letter Number: 115

Comment: * YOSEMITE SEQUOIAS. In part because of the long life-span of the Sequoia trees, nobody knows the full range of natural conditions that Sequoia groves were formed by and have lived through. Evidence of hot fire in the past means that there must have been some severe fuel build ups. So, part of the natural variation over time would be that there are built up areas of fuels/kindling waiting for that lightning bolt. Sequoias do not need fire to germinate. They do respond to fire by germinating lots and lots of seedlings. but they also sprout wherever nature creates a small opening, such as when a giant falls down and its roots tip up moving a lot of bare soil to the surface, and also when a gopher digs a hole with a small patch of sunlight. The fact that Sequoias respond after a fire is not a reason to disturb the soil just to make them respond. The Sequoias reproduce and survive after disturbance, but when there is no disturbance there is a status quo... new seedlings are redundant. Consider that the trees there now can survive 3500 years and become up to 35 feet in diameter. Even if one seedling every century per acre survived, that would make 35 huge giants an acre, all producing cones and seeds. And consider that Sequoias do not usually occur in pure stands but are mixed with other conifer species, each requiring nutrients, etc. So, this alarm over groves not reproducing is probably not valid in Sequoia time. People have reported seeing young Sequoia in almost every grove. A Sequoia grove is, of course, not a tree farm.

Response: The natural regeneration of the giant sequoia is strongly dependent upon conditions produced by recurring moderate intensity fires (Harvey et al. 1977). The primary management objective for each grove would be to preserve, maintain and propagate the giant sequoia. It is not to make as many giant sequoias as possible. Other objectives are to mange the grove for aesthetic beauty, maintain scenic vistas, restore cultural landscapes and preserve historic resources. The limited extent of our groves, high visitation, and potential for impairment have helped us to chose prescribed fire as the primary tool for managing fuels and performing ecosystem restoration and maintenance within and surrounding the groves.

Concern #176: The National Park Service should clarify the use and relevance of Sierra Nevada Ecosystem Project (SNEP) old growth forest information.

Letter Number::130

Comment: The plan uses the Sierra Nevada Ecosystem Project (SNEP) old growth information that is inaccurate. It states the park has 54% high-quality, late successional forest, which is about twice as much as the neighboring national forest lands. SNEP reported the adjacent forests, Stanislaus and Sierra, have 33 percent late successional or nearly two thirds that of the park. But the SNEP

analysis favored park forests. The inventory was assessed by evaluating patches for percent old growth then evaluating the number of old forest patches that were in a polygon. Polygons were tabulated based upon the percent of old forest patches. The larger the patch, the greater the odds are that something other than old growth will be present, reducing the percentage of old forest in the patch. SNEP reported:

"For reasons of past inventory practices, polygons on the national parks were generally smaller, about the size of national forest patches. These differences may have biased comparisons between national parks and national forests, because polygons tended to be ranked lower if late successional patches were comparatively smaller and fragmented, a problem in larger polygons."

In-other-words, an old forest polygon on the national park would have only been an old forest patch on the national forest. Most of the surrounding forest patches would also have had to be old forest for the national forest polygon to have qualified as old forest. Therefore, old forest areas were credit to national parks where identical old forest areas were not credit to national forests. Subsequent work of Dr. Fites-Kaufmann verifies more homogeneity exists the smaller the area assessed.

Additionally, the definition used for old forests favored national parks by downgrading for evidence of human influence. Again SNEP reported:

"Also, the degree of past human influence on polygons was a strong component of the rankings; a polygon that had experienced significant past human-caused disturbance tended to be ranked lower than an otherwise similar polygon without such influences."

Finally, national parks set the measurement standard. Rather than develop an old forest condition that existed pre-settlement, the authors accepted dense forests stands with large trees interspersed. Thinned forests on national forests were downgraded because of the evidence of human influence and the lack of forest density, even though the condition may have more nearly mimicked pre-settlement conditions.

"Despite reflecting increased forest density and fuel loading due to fire suppression, forests in the national parks provide an instructive reference point for estimating pre-contact levels of high-quality late successional forests, as only minor areas have been subject to significant timber harvest...although many more forest stands in the national parks still carry excessive tree densities and unnatural fuel levels than have been restored to proximate pre-contact conditions, and extreme fire events continue to be suppressed. Although current conditions reduce the value of the national parks as indices of natural forest conditions, parks remain the best available benchmarks."

The only accurate conclusion that can be drawn from the SNEP information is that more national parklands look like national parks than do national forests.

Response: The SNEP data are used to document that Yosemite National Park has large acreages of high quality old growth forest. This is an important natural resource and has a bearing on how fire is managed at Yosemite. The SNEP dataset, like all datasets, has some inaccuracies, but other datasets expressed at similar landscape scales seem to corroborate the general quality and amount of old growth found at the park compared to surrounding national forests.

Concern #177: The National Park Service is excessively self-confident, considering the amount of unknowns.

Letter Number: 115

Comment: * EXCESSIVE SELF-CONFIDENCE REGARDING THE FIRE MANAGEMENT PLAN AND THE ALTERNATIVES. The amount of confidence displayed in this Fire Management Plan with its major and significant amount of manipulation of the forests, meadows, riparian areas and vegetation and its potential unknown effects on the ecology is amazing. A small example of what is not known. During the Fire Management Plan field trip on July 24, the Yosemite Fire Manager explained that before the A-Rock fire no one knew there were Knob cone pines in Yosemite. In fact, there is a ridge below where we were standing when this was said which is known as, "Knob cone hill" in Foresta because of the Knob cone pines which are known to have been there by Foresta residents long before the fire. The cones roll down the hill, which is why in part there are many knob cone pines in Forest before the fire and now.

Response: The draft EIS/FMP notes that adaptive management is an underpinning of the fire management program. The FMP/EIS is based on the best, rather than perfect, science and information. The incorporation of a fire effects monitoring system into the program assists in the identification of unplanned effects as they arise so that they can be better managed in future operations. The monitoring system can verify that prescribed fire projects, for example, have achieved planned objectives.

Concern #178: The FMP/EIS should provide clarification regarding the number of fires and acres burned in the Foothill pine/live oak/chaparral woodland.

Letter Number: 63

Comment: On page 3-18, under "Foothill pine/live oak/chaparral woodland," are the following statements:

"The foothill pine/live oak/chaparral woodland covers 6,985 acres in Yosemite and 372 acres in the El Portal Administrative Site… Fuel loads can reach 22 tons per acre for foothill pine but are usually much lower (van Wagtendonk et al. 1998)"

"Lightning is infrequent. Since 1930, 34 lightning fires have burned 8,514 acres in the park, and the A-Rock fire burned 41 acres of the type in the El Portal Administrative Site …. Over 90% of the foothill pine/live oak chaparral woodland has burned during the past 70 years, leaving only 607 acres unburned. A total of

3,637 acres in the park have burned one time, 2,340 acres have burned two times, 312 acres have burned three times, and 90 acres have burned four times." (Emphasis Added)

607 + 3,637 + 2,340 + 312 +90 = 6986

3,637 + 2,340 + 312 + 90 = 6379 = 91.3% of 6986

The one acre difference (6896 - 6895) probably results from rounding to the nearest acre; but we cannot reconcile the 8514 acres ascribed to the 34 lighting fires.

Response: Thank you for your attention to detail. The reason that more acres, 8,514 have burned than are in the vegetation type, 6,985 is that some areas have burned 2,3 and even 4 times.

Concern #179: The FMP/EIS should explain why range of vegetation is narrowed compared to the 1997 Vegetation Management Plan (as per Appendix 10-27).

Letter Number: 115

Comment: Why is the range of vegetation narrowed compared to the 1997 Vegetation Management Plan as per Appendix 10-2?

Response: The vegetation has been grouped into categories that better reflect potential fire behavior. None of the vegetation types from the Vegetation Management Plan were excluded from analysis.

Concern #180: The National Park Service should consider reducing or revising the gap size target ranges.

Letter: 117, 70, 115,

Letter Number: 117

Comment: We also suggest reducing the gap size target ranges as described in Table 2-3. Research conducted by Weatherspoon for the Sierra Nevada Ecosystem Project finds a gap size of 1/4 - 2 acres to be consistent with stand structures where fires naturally burned frequently but at low to moderate severity with infrequent high severity fires.

Response: We agree. The gap size range suggested in this comment is the size that is wanted for the majority (normally 75-95%) of the types for which data is available. Ongoing research at the park will further refine these numbers.

Concern #181: The National Park Service should put major emphasis on dealing with/reversing vegetation (type) conversions.

Letter Number: 130

Comment: The vegetation classification section provides ample evidence that vegetation conversions should occupy a prominent part of the fire management plan. Regeneration of shade-intolerant species such as ponderosa pine, sugar pine and black oak is disappearing from many areas within the park. Black oak is estimated to cover less than 10% of Yosemite Valley than it did in 1860. Meadows have been reduced by 50% in the last 120 years. Reintroduction of fire, without a focus on forest type conversions, will not create the forest openings needed to restore dwindling ecosystems. We strongly encourage the park service to address restoration efforts needed for meadows, ponderosa pine/mixed-conifer, ponderosa pine/bear clover, and California black oak woodland and forests.

Response: We agree that fire exclusion, among other factors, has resulted in a transition from shade-intolerant to shade tolerant species. It is the expectation of the fire management program that the re-introduction of fire will at least partially reverse this process. Post-fire data will be collected from prescribed fires set in Yosemite Valley, which will measure the validity of this expectation. If unsuccessful, other methods would be developed in a revised vegetation management plan.

Concern #182: The National Park Service should not use chemical treatments or poisons to remove vegetation or create snags.

Letter Number: 113

Comment: no chemical treatments should be used for removing live vegetation and/or species from a site, even if they meet additional compliance requirements. Trees should not be shot with poisons, or otherwise killed and left to stand in place while they die as described in the plan. This would create a vast forest of dead trees that would contribute significantly to catastrophic fire.

Response: The FMP/EIS does not propose to use chemical treatment methods.

Concern #183: The National Park Service needs to have complete information before it implements the FMP/EIS, rather than fill information gaps through adaptive management.

Letter Number: 115

Comment: * DESIGN/BUILD A SCARY WAY TO MANAGE CALIFORNIA BLACK OAK WOODLANDS, ETC. Table 2.3 indicates that determining the Gap Distribution, Density and Frequency by Species Composition and Fuel Load of the following vegetation types -- California Black Oak, Canyon Live Oak Forest, Ponderosa Pine/Bear Clover Forest, Low Meadows/Dry Montane Meadows, Foothill Pine/Live Oak/Chaparral Woodland and Blue Oak Woodland -- "Will be determined through research and monitoring, i.e., through the adaptive management process." The major amount of manipulation in this plan will subject these areas to an unacceptable amount of human interference without knowing or being able to predict the consequences for the future. What right does one generation have to do this to Yosemite? Where is common sense? Where is respect for nature and the gift of Yosemite?

Response: Adaptive management is now widely practiced. It is a common sense approach to learning by doing. Organizations or programs can take a conservative approach to filling information gaps through study and hypothesis testing on a limited scale. The lessons learned are then adopted and refined. Adaptive management can be a useful tool to an organization that wants to learn and respond to needs, rather than remain static and unresponsive in accomplishing its program goals. The text being referenced in this comment refers to limited information on the range of variability for a subset of plant communities. These particular plant communities are among the most complex to understand. The intent is to point out that we endeavor to understand the range of variability for these communities. We feel that this is a more prudent method by which to proceed, as opposed to continuing to risk significant damage due to wildfire through inaction.

Concern #184: The National Park Service should first address other threats to California Black Oak, including lawns and lawn watering.

Letters: 115, 116,

Letter Number: 116

Comment: It has been explained that a justification for removing cedars is to improve conditions for Black Oaks, yet lawns and watering are allowed in the Park Service Historic District creating conditions detrimental to Oaks; furthermore, while walking in Curry Village this past weekend, we noted lawns in front of some of the cabins with a sign by the tour pick-up area claiming meadow restoration with broken sprinklers just running (and we're supposed to be in a drought situation). Do as I say, not as I do…

Response: The majority of California black oak woodland and forest acreage in Yosemite National Park lies within undeveloped portions of the park including stands surrounding Wawona, Big Meadow, and Hetch Hetchy. The viability of this type has been severely altered in some areas by decades of fire suppression and changes in fire regime brought about by human influences such as infrastructure development. These impacts can be readily seen throughout the western, relatively undeveloped sections of Yosemite Valley where broadly branched old black oak trees are surrounded by (and sometimes entwined with) younger shade-tolerant conifers.

Black oak woodlands in developed areas, where landscaping activities such as lawns and irrigation occur, comprise a small proportion of the entire extent of this vegetation type in the park. These areas are managed under a different set of guidelines that seek to balance a variety of objectives including preservation of landscape character, maintenance of specific attributes of openness and shade, and requirements for safety of both visitors and residents. Site-specific landscaping plans have been developed for most developed areas of the park in an effort to define these “character defining features” most important to each site, including the presence and continued maintenance of individuals and stands of black oaks.

Black oak woodlands in undeveloped but conifer-dominated areas provide critical habitat for many wildlife species and represent the greatest potential for re-establishment of natural plant

and wildlife communities. The NPS is committed to restoring these sites to natural density and stand characteristics, as they have the most potential for providing habitat in the present and the future. These sites are also able to regenerate and to continue as viable communities. Developed stands have little to no potential to provide this habitat due to the levels of human use, lack of understory cover, and lack of natural regeneration.

Concern #185: The FMP should make note of the amount of prescribed burning that has been done in Western white pine/Jeffery pine forest and the purpose of burning live oak.

Letter Number: 70

Comment: 3-9: It may be worth noting that 21,071 (=132,708-88,703-2,709-326-3,970-15,929) acres (16%) of the Western white pine/Jeffrey pine forest have burned within less the past 12 years (1 median fire return interval).

Letter Number: 70

Comment: 3-16: The primary benefit I foresee from burning oak forest reducing its ability to convey fire to other ecotypes. Because live oak tends to sprout from whatever fire leaves behind, be it branch, trunk, or root, fire shouldn't dramatically reduce tree and shrub density.

Response: It is noted on page 3-9 that 21,071 acres of Western white/Jeffrey pine have burned in the last 12 years. It is noted on page 3-16 that reduction of Canyon live oak fuel loads will reduce the probability that high intensity fire will spread from this type to neighboring ecotypes.

Concern #186: Efforts to open up the canopy might have negative effects upon soils, mosses, fungi and small but important vegetation.

Letter Number: 115

Comment: The drastic amount of tree removal, both large, medium and small saplings exhibited in the demonstration plot at Happy Isles, leaves us to wonder about the effects of so much opening to the sun all at one time on the soils, mosses, fungi and small, but important vegetation and what that could do to the existing fauna and ecology of the area.

Response: Effects of reduced canopy cover from thinning and fire are evaluated in Chapter 4, Environmental Consequences. Small gaps in the canopy are very important for overall plant diversity. Many herbaceous plants decrease in size, number and diversity under shady conditions. Fungi are often more abundant after prescribed fire than before. Mitigations have been, and will, be used to protect the soil from damage during mechanical thinning treatments. There isn’t much information about the effect of fire on mosses, some mosses increase after fire, but some shade tolerant species decrease with an increase in sun or fire. The important factor is that the small gaps created under managed conditions are more likely to preserve microclimates

than is the creation of large gaps due to intense wildfire. Similarly, small gaps can also be lost as dense, shade tolerant vegetation becomes dominant during fire-free periods due to fire exclusion.

Concern #187: The prescribed restoration target might leave too many standing dead trees.

Letter Number: 63

Comment: If the "Demonstration Site" -- used in the July 24, 2002 workshop - reflects target conditions in other areas; we believe the percentage of retained dead trees (34%) is too high.

Response: Use of prescribed fire under the DEIS's preferred alternative would be aimed at restoring and maintaining a more natural forest structure. This includes a natural abundance and age diversity of snags (standing dead trees). Snags have been described as perhaps the most valuable tree form in the forest to wildlife, because of the food and shelter they provide to a wide range of species. Several species of bats depend on snags for roost sites, an array of woodpecker species drill into snags for food and to create nest cavities, and many species of animals secondarily use these cavities. Snags are important nest sites for rare species such as California Spotted Owls and Great Gray Owls.

In a prescribed fire, the intensity of the burn will vary over the area, which is how a fire under natural fuel conditions would burn. Some areas may not be touched by fire or burn only lightly, while in other areas clusters of trees may be killed, creating gaps in the forest canopy. This diversity of burn intensities results in a high degree of variability in habitat types over a relatively small area, which supports a wide diversity of wildlife species. Gaps in the forest canopy are especially important, because they create an "edge" between habitat types that is favored by many animal species.

Concern #188: The National Park Service should not cut large trees because they are a benefit to wildlife.

Concern #188A: The National Park Service should not thin late successional forest because they are a benefit to wildlife, including spotted owl, goshawk, great gray owl, and Pacific fisher.

Letters: 138, 113, 135, 133,

Letter Number: 138

Comment: You want to cut trees up to 31 1/2 inches in diameter, especially around your buildings. In the beautiful forest where I am staying I have noticed that it is precisely the trees that have attained that size that are most attractive to squirrels & chipmunks and to varied species of songbirds that are attracted to these older trees for food and for singing and feeding their young. I walked through many younger trees last evening without hearing or seeing birds and suddenly there was a chorus of singing and birds flying to and fro between two large Jeffries with a trunk diameter of approximately 30 inches, and young cones on its branches. There were at least five species of birds, and young ones being fed, and a boisterous atmosphere of activity and joy. I notice that the Douglas Squirrels are invariably in these older trees cutting their cones and that the pine needles built

up at their bases are full of chipmunk holes and squirrel diggings. These older trees ought to be preserved wherever possible. Visitors to Yosemite marvel at the beautiful trees and receive great joy observing the wildlife.

Letter Number: 135

Comment: It does not seem feasible to propose large tree removal from areas comprised of potential suitable spotted owl nesting habitat. This may be the biggest legal vulnerability of the restoration activities proposed in the FMP. Question: have there been any surveys for presence of spotted owl nests? If not, will such surveys be conducted prior to implementation of large tree removal? What would be the potential effects on spotted owls from removing large white firs or incense cedars?

Letter Number: 133

Comment: The proposed removal of trees up to 31" dbh would threaten the viability of the Pacific fisher, and could lead to its listing under the ESA. The fisher's current population status, according to the Sierra Nevada Forest Plan (SNFP) is "Outcome D" - - far below the bare minimum of Outcome B required for viability. See SNFP FEIS, Vol. 3, Ch. 3, part 4.4, p. 16, Table 4.4.1.1d.

Response: While removal of trees would occur in small areas of the park, the resulting forests in these areas would support a natural diversity of tree sizes and densities.

All mechanical thinning of trees would occur in non-wilderness areas, and would primarily occur in areas adjacent to development in order to provide a defensible buffer against wildfire. Nonetheless, even the thinning in these areas would provide forest conditions that fall within the natural range of density for the forest type. These areas, because of their limited extent, and proximity to development are unlikely to have an appreciable effect on sensitive species such as California spotted owls and Pacific fishers.

In many areas, and especially in Yosemite Valley, a long history of fire suppression, and alteration of natural hydrology have led to rapidly shrinking meadows from invasion by trees, and the historic views obstructed by dense forests. Because of the long history of fire suppression, many of these trees that crowd Yosemite Valley and other areas are relatively large, but represent the legacy of human-altered habitats. While these thick forests provide good habitat for some animal species, they have become unsuitable for a wider range of species, especially those that thrive in a more open and diverse habitat, or in the very productive meadows that are rapidly shrinking.

The use of mechanical thinning, prescribed fire, and wildland fire will result in more natural fuel conditions and forest structure, which will directly benefit native wildlife species; all of which are adapted to natural fire regimes, and the resulting forest structure. Thinning near developed areas under the Yosemite Fire Management plan is designed to not only protect these areas, but also achieve a natural forest structure. The far greatest threats to these species under current conditions are the large, high-intensity fires that are likely unless measures are taken to reduce the unnatural amounts of fuel that have accumulated in Yosemite's forests.

Concern #189: The National Park Service should use forest thinning in Yosemite to provide a diversity of wildlife habitats.

Letter Number: 79

Comment: Open, thinned areas provide diverse habitat with grasses, bushes, shrubs and berries which act as a hatchery for insects, rodents, small birds and prey of all kinds for larger birds and mammals.

Response: While mechanical thinning of forests under the Yosemite Fire Management Plan is designed to achieve forest conditions that fall within the natural range of forest density and structure, such activity would be largely be limited to areas adjacent to developed areas. Use of prescribed fire and natural wildland fires, however, would be used over wide areas of the park to achieve reduced fuel loading and natural forest structure. These conditions would provide a diversity of wildlife habitats that would result from variation in fire intensity over the burned area. Patches of trees would be killed, creating forest openings, while other areas would burn lightly or remain untouched. Such diversity results in habitats that can support a large number of wildlife species over a relatively small area.

Concern #190: The FMP/EIS should not base its analysis on the potential for catastrophic fire.

Letter Number: 63

Comment: In Table 2.14 Summary of Environmental Consequences, we find 31 statements regarding the potential for adverse effects of such fires (primarily in the "No-Action Alternative), and 31 statements regarding the beneficial effects of "reduction of risk of catastrophic fires" (spread among the three Action Alternatives). The language used is misleading. For example: Under California Spotted Owl, Pacific Fisher, Great Grey Owl and Valley Elderberry Longhorn Beetle, Alternative A includes the statement "Adverse, long-term, and major impacts due to potential for catastrophic fire."

There is no "adverse impact" to any species from the "potential" for catastrophic fire. Impacts only occur when such an event happens; not as a result of an altered probability for the event. This appears to be an effort to garner support for the proposal by creating apprehensions of a catastrophic event and an unmerited confidence that the proposed treatments will prevent such an event.

Response: Regarding the comment, and the example impact assessments, please read as, “There remains a high potential for catastrophic fire. The impact of catastrophic fire would be adverse, long-term and major.”

Concern #191: The FMP/EIS should clarify why air emissions will be elevated during 2005 and 2009.

Letters: 113, 114

Letter Number: 113

Comment: The Final Yosemite Fire Plan should clearly indicate all of the reasons why air

emissions will be at elevated levels during 2005 and 2009, as opposed to the other years listed on page 4-170 in Alternative B, and page 4-305 in Alternative D. Given the short burn windows available in shoulder seasons, these projected air emissions will have far greater impacts than Fire Plan writers have disclosed.

Response: Emissions from fire correspond directly to the amount of fuel consumed, which is a function of acres burned, fuel type, fuel density, fuel moisture content ,and other meteorological conditions. This is stated in the air quality methodology section of the FMP/EIS. In general, it is expected that emissions will decline over time, as more areas are reburned, rather than burned for the first time in many decades. Reburns are expected to have significantly less duff and litter on the forest floor, which contribute a great deal to smoke due to smoldering.

Concern #192: The National Park Service should obtain a waiver from air quality boards, to conduct prescribed burns and apply modified air quality standards.

Letter Number: 47

Comment: One solution is to obtain a waiver from air quality control boards to apply modified standards for prescribed burns. Justification could come from studies that would show how much public health suffers from wildfire pollution compared to how much it would suffer from prescribed burns over similar acreage under waiver conditions. This approach might help in the future, but it would not be approved soon enough to meet current needs and priorities.

Response: Under the Clean Air Act, federal agencies must comply with federal, state, and local air quality regulations, and be held to the same standards as those to which the public must comply. Legislation to grant a waiver would have to be introduced and laws passed to allow this to occur. The park has asked for variances from no-burn days in the past, and will continue to do so where data exists to show that local meteorological conditions are favorable.

Concern #193: The National Park Service should adhere to existing air quality regulations, and consider the effects of prescribed fire upon local and regional communities.

Letter: 107, 91, 95, 107,

Letter Number: 107

Comment: The air quality section of the DEIS is well prepared and provides the reader with sufficient information to understand the air quality implications of the proposed project.

Letter Number: 107

Comment: In November of 1993, the Environmental Protection Agency (EPA) published the "General Conformity Rule." This rule applies to federal activities. The SJVAPCD adopted this rule for the purpose of reviewing and commenting on federal actions. This rule establishes "diminimis levels' for various pollutant emissions. The Executive Summary (pages ES-12 and ES-13) clearly states the

intentions for air quality, smoke management and air quality watershed strategy. For "all treatments of fire, there would be strict adherence to state and federal regulations", which the SJVADCD finds applicable to all Alternatives. The EPA has designated the San Joaquin Valley Air Basin (SJVAB) as severe non-attainment for the federal one-hour ozone standard and serious non-attainment for the federal one-hour and 24-hour PM10 standard. Each Alternative would exceed conformity thresholds for ozone/ozone precursors and PM10/PM10 precursors. The following threshold emissions apply to the SJVAB: Ozone (VOC's or Nox) are twenty-five (25) tons per year per project, PM10's are seventy (70) tons per year per project. A copy of the General Conformity Rule 9110 is enclosed. The California Air Resource Board (ARB), on March 23, 2000 amended Title 17, Agriculture Burning Guidelines (which became the Smoke Management Guidelines for Agricultural and Prescribed Burning). Title 17 requires the SJVAPCD to develop a Smoke Management Program (SMP) to minimize the production of smoke from all open burning, including prescribed and hazard reduction burning. The SJAPCD's proposed SMP is a broad document that contains a number of required elements. Included in the SMP is the SJVAPCD's burn authorization system, regulations to minimize smoke from burning, procedures for conducting various burn activities, meteorological and monitoring data criteria, and several other factors. Title 17 also requires rules, regulations or other enforceable mechanisms be adopted by the SJVAPCD prior to April 1, 2003. Enclosed is a copy of the Proposed SMP.

The SJVAPCD has been operating a smoke management program for several years and adopted Rule 4106 (Prescribed Burning and Hazard Reduction Burning) to incorporate into the SJVAPCD Smoke Management Program. Rule 41006, Section 4.0, Requirements; 4.9, Prescribed Burning; 5.2, Smoke Management Plans from Prescribed Burning; 5.3, Naturally Ignited Fires; 5.6, Registration of Prescribed Burning Projects; 5.7, Smoke Management Plan Review and Approval are applicable to fire management within the Park. Enclosed is a copy of Rule and 4106.

The Park should be aware of the SJVAPCD's ongoing efforts to reduce emissions of PM10 for fugitive dust sources. On November 15, 2001 the SJVAPCD adopted amendments to Regulation VIII, Fugitive Dust Requirements for Control of Fine Particulate Matter, which because effective on May 15, 2002. This Regulation is a series of rules designed by the SJVAPCD to reduce PM10 emissions generated by human activity. This will apply to unpaved forest roads and/or felled timber storage areas. A copy of Regulation VIII is enclosed.

Letter Number: 91

Comment: Fifty percent or more of the population is > 50 years old in the communities of Bass Lake and Big Oak Flat/Groveland. The communities of Mi-Wuk Village, Twain Harte, Sonora, Jamestown, and Mariposa also have significantly large numbers of residents over the age of 50.
A host of recent scientific studies have shown that children, the elderly, adults

who exercise rigorously, asthmatics, and those with impaired lung function can suffer illness and even premature death from short-term exposure to ambient PM10(*2) such as that generated from prescribed fire. In fact, the USEPA estimates that as many as 60,000 U.S. residents per year may die from breathing particulate at or below legally allowed levels(*3) .

Highest concentrations of smoke from prescribed burn activities are most likely to occur in downslope communities for periods of 8 to 12 hours during the nighttime and morning hours when there is poor atmospheric smoke dispersion and diurnal downslope winds prevail. These are the times when community residents can experience adverse health impacts from high levels of fine smoke particles (often much higher than the federal health standards) for periods generally less than 24 hours.(*2) For example: Health affects of outdoor air pollution. Committee of the Environmental and Occupational Health Assembly of the American Thoracic Society, American Journal of Respiratory Critical Care Medicine, Jan 1996; 153(1):3-50, and, Borja-Aburto VH, et al, Instituto Politecnico Nacional, Mexico, DF, Mexico; Mortality and ambient fine particles in a southwest Mexico city, 1993-1995; Environmental Health Perspectives; Dec 1998;106(12):849-55, and, American Lung Association, "The Perils of Particulate", 1-800-LUNG-USA.(*3) Joel Schwartz, Dust to Dust: A Particularly Lethal Legacy, Science News, 139:212, 1991

Letter Number: 91

Comment: There is one thing that would help complete the otherwise very thorough analysis of cumulative effects. Alternatives D & B propose to increase smoke emissions that can be hazardous to human health, particularly PM10, PM2.5 and VOC's, 5-6 and 8 times respectively over current levels. The FMP acknowledges and identifies mitigations for the potential health impacts of these increased emissions on visitors and residents within the Park boundaries, but does not sufficiently address impacts to residents in the downwind and downslope communities of the Sierra foothills.

Response: The Yosemite fire management program works on a daily basis with local and state air quality regulators and meteorologists. We appreciate the importance of protecting human health from smoke emissions. The air regulators also appreciate the importance of using fire under managed conditions, as opposed to the emissions from uncontrolled wildfires. The objectives of both fire and air managers can be made more compatible through improved modeling of meteorology, emissions, and fire behavior, by gauging the public's tolerance for smoke, and by improved communication among air quality managers, fire managers, and the affected publics. The park views this communication as a cornerstone of a successful fire program.

Concern #194: The National Park Service should not use prescribed burning because of the impacts on local communities.

Letters: 30, 35,

Letter Number: 30

Comment: Why should we neighboring stakeholders put up with all that smoke, smell and reduced visibility, Yosemite's 1990 fire management plan also proposed prescribed burns, but smoke complaints limited their implementation. The whole prescribed burn concept is really not a viable solution to reducing the enormous fuel load. Prescribed burns in steep, mountainous terrain are a recipe for disaster.

Response: Wildfires are a reality of living in wildlands anywhere in the United States, and the magnitude, cost, and damage from these fires has grown dramatically in recent years. Congress has directed agencies to undertake fuel management programs to mitigate wildfire damage; the Yosemite FEIS has been developed with this direction in mind.

Smoke can be unpleasant, unsightly and unhealthy. Smoke will occur regardless if the fire is a prescribed burn, wildland fire use fire, or an unwanted wildland fire. Prescribed burning emissions, however, are typically less than 2/3's of the quantity of emissions generated by an unwanted wildland fire burning over a similar area and fuels (see FMP/EIS, Air Quality, pages 4-8 to 4-12). Prescribed fires cause far less ecological damage than do unnaturally intense wildfires; wildfires can also cause significant economical impacts due to road closures and loss of tourism.

Yosemite National Park and the local air districts are working together to manage the airsheds within and surrounding Yosemite. Part of that effort includes education on why prescribed burning is so important, as well as providing timely and accurate information on when smoke events may be likely. It is a difficult balance being a good neighbor to surrounding residents and communities, while at the same time trying to be an effective steward of the Park and resources contained therein. Yosemite is committed to doing both.

Concern #195: The FMP/EIS should include information of the effects of the fire management program on global warming.

Letter Number: 70

Comment: 4-11a, Table 4.2: CO will oxidize within days to CO2. I assume that 39.2 tons/acre CO2 becomes 52.8 tons/acre CO2 (39.2 +[44/28]x8.7) when evaluating the impact on global warming.

4-11b: A glance at Map 2-3 (Fires by Decade since 1930) shows that far more acreage burned during the 1991-2000 decade than burned in the previous 6 decades, primarily due to change in fire management policy. The 5,760 acre annual burn rate you've chosen as a baseline for estimating wildfire air emissions cannot be sustained for long within the fire suppression unit unless emission factors are reduced to values commensurate with long-term fuel production rates.

Letter Number: 70

Comment: Though you provide a partial basis for evaluating potential impacts on global warming, you failed to follow through. Averaging the annual totals for 2003-2009 (Table 4.17, page 4-304) yields 1,067,520 tons CO2/yr and 6400 tons NOx/yr for

> Alternative D. Multiplying these CO2 emissions by 1.35 (see 4-11a) yields 1,438,000 tons CO2/yr. Further, if all NOx were NO2, this would be equivalent in its global warming impact to another 1,984,000 tons CO2/yr (as EPA claims NO2 is 310 times more potent than CO2), for a total of 3,422,000 tons CO2/yr. These contributions are major. To give perspective, a car making 20 miles/gallon produces 1 ton CO2 every 1740 miles. To offset merely the impact of 1,438,000 tons CO2/yr would require the avoidance of 2.5 billion car miles/year. If YNP sought to mitigate that impact by adding 1000 overnight units in Yosemite Valley, each one avoiding a 90 mile daily roundtrip to Mariposa on say 150 days each year, only 13.5 million car miles would be avoided - a mere drop in the bucket. Compared to the impact on global warming, the impacts you've chosen to evaluate in this draft EIS and the range of vegetation management alternatives you've elected to consider are quite trivial. You may argue that you merely seek to undo the inadvertent benefits of past practices, but your timing is bad. A warming trend is underway and even Yosemite is affected. Moreover, as managed wildland fires march across the West, the public's affection for once forested wilderness is likely to wane.

Response: We concur that CO is a precursor to CO_2. However, beyond quantifying the annual emissions of certain pollutants that contribute to global, it was not our intent to address the global warming potential of the fire emissions as it is beyond the scope of the analysis. We will revise the FMP to reflect that CO is a greenhouse gas precursor, but will not calculate CO_2 equivalence.. We believe the that, in the long-term, the preferred alternative will have a beneficial impact on global warming because wildfire emissions will be reduced.

We concur with the comment regarding 4-11b. Air emissions will diminish as fuel loading and fuel consumption are returned to natural levels and we enter into maintenance burning.

Wildland fire has been a component of the natural ecosystem processes occurring in our forests for thousands of years and predates the dramatic increase in CO_2 levels that began at the beginning of this century. It is only recently that high intensity, catastrophic wildfires have begun to frequently occur as a result of heavy fuel loadings associated with many years of fire suppression. These high intensity fires consume a much greater percentage of branch and crown fuels than would typically be expected under natural conditions. As a result, they produce a much greater amount of greenhouse gasses. This is demonstrated in Table 4.2 where the CO_2 emission factor for a high intensity wildfire is given as 67.3 tons/acre. The intent of the FMP is, in part, to return fuel loads to natural levels thereby preventing the otherwise inevitable occurrence of high intensity fires. Therefore, in the long-term, fire management as described under the preferred alternative will reduce impacts on global warming. Again, beyond quantifying emissions of certain pollutants that contribute to global warming, calculating the global warming potential of fire emissions is beyond the scope of this document.

Concern #196: The FMP/EIS should contrast the number of tons of fuel that needs to be burned annually and the resultant quantities of smoke that can be released into air under current air quality regulations.

Letter Number: 81

Comment: 3) The discussion regarding air quality regulations and their effect on the amount of smoke that can be released into the air under any of the alternatives is hopelessly shallow. There needs to be an analysis done that would contrast the number of tons of fuel that needs to burned annually and the resultant quantities of smoke that can be released into air under current air quality regulations. How can anyone determine if the job that needs to be done can be done without being able to see those numbers?

Letter Number: 118

Comment: The National Park Service can manage the effects of smoke from planned prescribed burning, but not from large unwanted, wildland fire events.

Most prescribed burning projects involve many hours of planning and preparation to achieve the desired results, including minimizing smoke emissions. Large unwanted wildland fire events are themselves unpredictable and create large amounts of emissions. It is very difficult to manage smoke from planned prescribed burns much less wildland fire events.

Response: The amount of pollution that is allowed into the air before standards are exceeded is a function of daily meteorological conditions, and current ambient air quality. The amount of emissions varies as a function of fuel moistures, fuel types, fuel loading, and firing patterns. A chief reason for the reduction of emissions over time will be the removal of unnaturally heavy amounts of wildland fuels, with fuel loads of lower, more natural amounts then maintained perpetually with prescribed and wildland fire. Predictions are made for meteorological conditions during the prescribed fire planning process, which also uses smoke emission models. This information is utilized to make decisions on whether a burn will be ignited or not. Once a fire is ignited weather conditions are assessed daily to determine if conditions are conducive to good atmospheric dispersion.

Concern #197: The National Park Service should reduce or eliminate campfires in Yosemite/Yosemite Valley to reduce air quality impacts.

Letter: 110, 12, 118,

Letter Number: 110

Comment: 6.a. Wood burned in campfires and YCS concession fireplaces should be reduced to accommodate additional prescribed burning when conditions suggest this would be an effective way to limit increased impacts upon air quality. This is a reasonable sacrifice for the public and an intelligent choice for park managers, already confronted with significant locally and regionally generated amounts of air pollutants from non-natural sources in some areas of the park, particularly in Yosemite Valley. Commercial sale of timber from thinning should not be viewed as an alternative in order to reduce impacts on air quality from reducing fuels.

Response: The authority to eliminate or restrict campfires does not reside in the fire management program, except during periods of extreme fire danger.

Concern #198: The National Park Service can manage the air quality effects of prescribed fires, but not those of managed wildland fires.

Letter Number: 118

Comment: The District is in favor of a balanced approach for reducing the potential for catastrophic wildfires. Emissions from wildfires have been shown to cause exceedences of air quality standards and a corresponding increase in health risks to the public.

Response: We agree; one benefit from the mitigation of the risk of unwanted wildland fire through the use of prescribed fire is a reduction in unhealthful emissions from unwanted wildland fires.

Concern #199: The program in the FMP/DEIS, in combination with other NPS actions, would result in negative (unacceptable) air quality impacts.

Letter Number: 116

Comment: THIS Fire Management Plan also evaluates the foul emissions associated with the use of this equipment projecting a deterioration in air quality-this on top of more than 500 logging trucks estimated per year and 500 roundtrip diesel shuttle buses per day during peak season. So much for a Class I Airshed . . . This is unacceptable.

Response: The FMP/EIS deals with the cumulative effects of smoke from multiple fires burning with the ability to impact Yosemite's airshed. Interagency cooperation and regulatory guidance will assure minimal cumulative impacts from multiple fires burning in or near the same airshed. In addition Yosemite NP is implementing various strategies to reduce emissions from non-fire sources, such as mass transit measures to reduce mobile source emissions. The park is also reducing their emissions from other internal air pollution sources as diverse as gas burning boilers and restaurant barbecue grilles, by implementing sustainable best management practices throughout the park.

Concern #200: The National Park Service, because of its responsibilities to protect visibility, should conduct its prescribed burning in short campaigns, when visitation is down and waterfalls are not at their best.

Letter Number: 70

Comment: 2-47: Air quality regulations and agricultural burning guidelines are intended to protect health and safety, not visibility. They actually encourage visibility impairment by redirecting burning to less polluted days. The draft EIS gives every indication you intend to follow a similar course. For those who prize vistas and clear air, this is a forbidding prospect. It also violates your statutory

mandate. The Clean Air Act designated Yosemite National Park and nearby National Forest Wilderness Areas as Class I Federal areas where visibility is an important value. 40 CFR 51.166 charges the Federal Land Manager of Class I lands with "affirmative responsibility to protect the air quality related values (including visibility) of any such lands". This could be accomplished by confining prescribed burns and managed, but smoky, wildfires into fairly short campaigns, preferably when visitation is down and waterfalls not at their best, such as late October through early November.

Response: As a Class I air shed Yosemite is responsible for protecting all air quality related values, including visibility. The NPS takes this responsibility very seriously and will do everything feasible to minimize the impacts of smoke on scenic park resources, while perpetuating the fire-dependent species and ecosystems which is also its responsibility. We agree that breaking large prescribed and wildland fires into segments is one way to balance these responsibilities.

Concern #201: The National Park Service should employ thinning operations to restore scenic resources/retain or restore views.

Letter Number: 136

Comment: I can advise from my own observations that the visual result of a cleaned up thinning operation is much more beautiful than the visual result of fire; there are grass and ferns among large and small timber stands which truly exemplify a park like setting. In contrast, Yosemite has areas near your park entrance roads which withstood burns years ago and still look awful.

Response: See # 202 below.

Concern #202: The National Park Service should not employ thinning operations to restore scenic resources/retain or restore views.

Letters: 4, 70, 103,

Letter Number: 103

Comment: Do not cut trees to retain views. Over time trees grow and views change. Trying to suppress this natural process is wrong. The trees are beautiful as are the rocks. This policy sounds like the policy of bombing a village in Vietnam in order to "save it."

Response: Use of mechanical methods for vista management is consistent with The Yosemite General Management Plan (GMP), which directs park managers to:

- “Preserve, protect, and restore scenic resources
- Identify the major scenic resources and the places from which they are viewed
- Provide for the preservation or protection of existing scenic resources and viewing stations

- Provide for historic views through vista clearing”

The GMP also directs that: “In developed areas …the natural role of fire in vegetative communities will be simulated with controlled burns or mechanical removal of vegetation.”

Uncertain meaning:

Letter Number:

Comment: happens all the time - disastrous fires started by campfires, "-People will not take control of their own situations " Therefore people use of this and other areas of the park must be limited - Our beloved Redwoods were in "Threat Mode -" I had no hope they could be saved - a typical example of mans inability to do the job necessary to protect our Forest Environ. - Wildlife Habitat (Home) and keep it all safe from logging waste and mis-management - its been proven over and over-man cannot do the job that needs to be done - Bottom Line - Expense

Response: This comment is determined to be out of scope. Its meaning is uncertain, making it difficult to draw a connection to the purpose, need or goals of the Yosemite Fire Management Plan.