

**Eiler Fire Salvage and Restoration Project
Legal Notice and Comment Analysis
June 18, 2015**

This document analyzes public comments received during the legal notice and comment period in regard to the draft environmental analysis (EA) for the Eiler Fire Salvage and Restoration Project (Eiler Project). The Eiler Project legal notice and comment period began on April 14, 2015. This summary analyzes the comments received during the public comment period, which lasted until May 14, 2015.

Table 1a (below) contains a list of interested or affected individuals, groups, and other agencies to which the EA for the Eiler Project was sent. The announcement was sent to those who responded to the Lassen National Forest Schedule of Proposed Actions (SOPA) and/or provided comments during the public scoping period, or would otherwise be potentially affected. This project has been listed in the SOPA since January 2015.

Table 1a. Contact List for Legal Notice and Comment for the Eiler Project.

Name	Organization
Dick Artley	Individual
Justin Augustine	Center for Biological Diversity
Rhonda Barnhart	Individual
Patty Betz	CFLR
Steven Brink	California Forestry Association
Rick Coakley	Individual
Don Curtis	Hat Creek Fire Safe Council
Honorable Mickey Gemmill	Pit River Tribe
Ryan Hadley	Sierra Pacific Industries
Debra Hallis	Central Valley Regional WQCB
Chad Hanson	John Muir Project
Patrick Heitkam	Heitkam's Honey Bees
Traci Holt	Diversified Resources
Jim Kerrigan	Individual
Leonard Moty	Shasta County Board of Supervisors
Randy Pew	Individual
Patricia Puterbaugh	Lassen Forest Preservation Group
Bill Wickman	American Forest Resource Council
	Shasta County Fire Safe Council

Table 1b (below) contains the list of those who responded during the legal notice and comment for the Eiler Project. Five individuals and/or organizations provided comments.

Table 1b. List of Respondents providing comments on the EA for the Eiler Project.

Letter #	Agency, Organization, Business, or Individual	Date
1	Bill Wickman, American Forest Resource Council	April 24, 2015
2	Ryan Hadley, Sierra Pacific Industries	April 29, 2015
3	Dick Artley, Individual	May 12, 2015
4	Patricia Puterbaugh, Lassen Forest Preservation Group	May 12, 2015
5	Chad Hanson, John Muir Project Justin Augustine, Center for Biological Diversity	May 14, 2015

Table 2 (on the following pages) identifies and documents specific statements from each of the letters received from the public during the legal notice and comment period. The Eiler Project Responsible Official identified statements as comments, questions, requests for information, alternative suggestions, potential issues, and literature citations. The Responsible Official then provided rationale for determining the status of the comment. Copies of the letters are in the Eiler planning record located at the Hat Creek Ranger District Office. For literature citations, a comment is provided by the Responsible Official on how the literature was addressed.

Table 2. Summary of Letters Received during the legal notice and comment period

Respondent #1: Bill Wickman, American Forest Resource Council, letter dated April 24, 2015			
Comment #	Identification	Summary of Comment	Responsible Official's Disposition
1-1	Comment	<p>This following comments are provided for the Eiler Fire Salvage and Restoration Project.</p> <p>1. In reference to the following two statements on pages 9-12;</p> <p>To reduce surface fuel loads to levels which facilitate site preparation for planting, minimize the danger and difficulty of suppressing future wildfires, and enhance future forest resiliency.</p> <p>To implement reforestation with considerations for vegetative diversity while providing for wildlife habitat diversity in burned forest stands.</p> <p>Both of these statements and subsequent discussion should consider new information contained in a new study and article; Post-fire logging reduces surface woody fuels up to four decades following wildfire by David W. Peterson, Erich K. Dodson and Richy J. Harrod. The paper can be found in <i>Forest Ecology and Management</i>. The research shows how fuels will build up and lead to future fire and other ecological issues.</p>	<p>Comment noted.</p> <p>This citation has been reviewed and is referenced in the Fuels report.</p>
1-1.1	Literature Citation	<p>Peterson, D. W., Dodson, E. K., & Harrod, R. J. 2015. Post-fire logging reduces surface woody fuels up to four decades following wildfire. <i>Forest Ecology and Management</i>, 338, 84-91.</p>	<p>This citation has been reviewed and is referenced in the Fuels report.</p>
1-2	Comment	<p>2. Page 15, Area Salvage Harvesting. It would be appropriate to discuss and add comment on addressing additional insect infestation die off as the time after initial entry leads to current green trees to become infected and die. This statement solidifies the opportunity and reduces the controversy of the treatment and removal of this additional insect salvage as it occurs. I also allows Sale Administration to continue to mark this insect and not directly fire killed timber to be addressed.</p>	<p>Comment noted. This topic was discussed on page 26 of the Silviculture Report, Forest Health Section: "Many areas that burned at low to moderate severity have high numbers of trees damaged by the fire leaving them weakened and highly susceptible to bark beetle attack (Gibson et al. 2009, DeMars and Roettgering 1982). Trees with damaged and exposed cambium resulting from the Eiler fire could be at risk to an increase in heart and root rot infections (Mallams et al. 2010). The extent of fire-damaged trees provides opportunity for bark beetle populations to increase to epidemic levels and expand</p>

			in to unburned areas. Salvage harvest and danger tree removal would reduce the extent of weakened fire damaged trees and help protect green forests.”
1-3	Comment	<p>3. Page 17, Reforestation. When discussion the approximately 5,645 acres of reforestation and the treatment of sprouting shrubs and vegetation, the following should be added to illustrate why it is important to do this reforestation and associated release activity.</p> <p>On public lands, almost 90 percent of every fire area is not salvaged and reforested, leading to a condition where brush is becoming the dominant vegetation cover, or a resulting conversion from forested acres to brushfields. This condition effects our State and public lands by reducing the amount of water available downstream for municipal and agricultural uses. Brush transpires more water than conifers, thus the additional loss of potential water yield. The paper <i>Mediterranean Climate Effects. I. Conifer Water Use Across A Sierra Ecoton</i>, by E. B. Royce and M. G. Barbour has shown that shrubs use far more soil moisture than do conifers and hardwoods.</p>	Comment noted. The Silviculture Report discusses the importance of reforestation in relation shrubs and competing vegetation (pages 22-27).
1-3.1	Literature Citation	Royce, E. B., & Barbour, M. G. 2001. Mediterranean climate effects. I. Conifer water use across a Sierra Nevada ecotone. <i>American Journal of Botany</i> , 88(5), 911-918.	The article addresses water potential and soil moisture for mid elevation conifers and shrubs on the Kern Plateau in the southern Sierra Nevada. It does not address water yield and supply in aquifers related to vegetation type.
1-4	Comment	<p>4. Page 41 under Alternative 2 and Alternative 3 discussion. It would strengthen the section to add statements about the new research cited above, Post-fire logging reduces surface woody fuels up to four decades following wildfire. Statements in relation to this study support your statements on fuel loadings increasing overtime. In addition, you should add statements in relation to the fact that over time, there would also be an increased probability of large concentrations of snags left on the landscape, falling over with time and the increase in high intensity re-burns and impacts to soils and hydrophobic conditions. You could also cite the increased impacts to fuels and air pollution issues by citing the following;</p> <ul style="list-style-type: none"> • The Desert Research Institute recently published information that suggests that approximately 34 percent of the global soot mass is from wildfire and emitted into the atmosphere. This soot has been dubbed 'superaggragates', or soot particles more compact and on average 10 times longer than normal ones. • In relation to the Rim Fire, the Sierra Nevada Conservancy provided the 	<p>Comment noted. This citation is referenced in the Eiler Fire Project EA and the Fire and Fuels report.</p> <p><u>Eiler Fire Project EA</u>: “The combined treatments under Alternative 1 would reduce snag densities, safety hazards, and the future fire hazard within the Eiler Project area. Reducing the basal area of snags would reduce the amount of down woody material, known as course woody debris (CWD), that accumulates and contributes to the surface fuel loading over time (Ritchie et al. 2013; Peterson et al. 2015). Treatments would reduce the vertical arrangement, horizontal continuity, and loading of the surface fuels. Combined, these changes would result in lower flame lengths, fireline intensities, and improved resistance-to-control throughout the project area. Fire behavior and fire severity would be reduced during any subsequent reburn of the area.</p>

		<p>following impacts;</p> <ul style="list-style-type: none"> • 11,352,608 metric tons of greenhouse gas was emitted and equivalent to; <ul style="list-style-type: none"> • Annual greenhouse gas emissions from 2.3 million cars • Carbon dioxide emissions from 1.2 billion gallons of gas consumed • Carbon dioxide emissions from the electricity use of 1.5 million homes for 1 year • Annual carbon dioxide emissions of 3.2 coal fired plants • http://www.sierranevada.ca.gov/factsheets/10.31rimfirefactsheet.pdf 	<p><u>Fire and Fuels Report</u>: “Salvage harvest and area fuels treatments would contribute to long-term restoration objectives in dry coniferous forests by restoring surface fuels to levels more consistent with low and mixed-severity fire regimes. At the stand scale, post-fire salvage harvest reduces surface fuels over the longer term, particularly in the large diameter classes, which should increase management options for applying prescribed fire treatments or allowing future wildfires to burn without causing excessive damage to forest vegetation and soils (Peterson et al. 2015).”</p>
1-4.1	Literature Citation	Peterson, D. W., Dodson, E. K., & Harrod, R. J. 2015. Post-fire logging reduces surface woody fuels up to four decades following wildfire. <i>Forest Ecology and Management</i> , 338, 84-91.	This citation has been reviewed and is referenced in the Fuels report.
1-4.2	Literature Citation	Chakrabarty, R. K., Beres, N. D., Moosmüller, H., China, S., Mazzoleni, C., Dubey, M. K., Liu, L., & Mishchenko, M. I. 2014. Soot superaggregates from flaming wildfires and their direct radiative forcing. <i>Scientific reports</i> , 4.	Study which looks at how wildfires contribute to global soot emissions and direct radiative forcing.
1-4.3	Literature Citation	http://www.sierranevada.ca.gov/factsheets/10.31rimfirefactsheet.pdf	Short information paper with facts about the Rim Fire and some long term impacts that can be expected post fire. The Rim Fire illustrates the need to address existing forest conditions in the Sierra Nevada and why investing in forest health equals investing in the health of California. Briefly describes how sustainable management includes removing biomass, small diameter trees, branches, and diseased wood that act as fuel for a fire.
1-5	Comment	<p>5. Page 59 Hydrology. Consider adding the same reference and consideration, <i>Mediterranean Climate Effects. I. Conifer Water Use Across A Sierra Ecotone</i>, by E. B. Royce and M. G. Barbour has shown that shrubs use far more soil moisture than do conifers and hardwoods. For the Hydrology section, this is relevant to the fact that increase loss of soil moisture due to increased shrub growth after fire and no treatment will lead to less water in the aquifers.</p> <p>Thank you for the opportunity to comment on your draft environmental document.</p>	Comment noted.

1-5.1	Literature Citation	Royce, E. B., & Barbour, M. G. 2001. Mediterranean climate effects. I. Conifer water use across a Sierra Nevada ecotone. <i>American Journal of Botany</i> , 88(5), 911-918.	The article addresses water potential and soil moisture for mid elevation conifers and shrubs on the Kern Plateau in the southern Sierra Nevada. It does not address water yield and supply in aquifers related to vegetation type.
Respondent #2: Ryan Hadley, Sierra Pacific Industries, email dated April 29, 2015			
Comment #	Identification	Summary of Comment	Responsible Official's Disposition
2-1	Comment	I support the Proposed Action on the Eiler Project, the ESD is imperative to allow for immediate operations to capture the remaining economic value of dead / dying timber and remove the excess fuel loading to allow for re-forestation. The project needs to have all Limited Operating Periods (LOP's) lifted to avoid any delay in the implementation of the proposed action.	<p>Comment noted. LOPs are limited to known sites when nest sites are active, which should have minimal effect on potential harvest operations.</p> <p>The FS understands the need for immediate operations due to the need to recover the economic value before further deterioration occurs (Eiler Fire ESD Relevant Information Document, Eller Project Record). R5 C Provision C6.315# - Sale Operations Schedule (08/2006) will be used to ensure completion of operations in a timely manner and to improve control of operations. The contract term date will be 12/31/2016. This is provide the purchaser 1.6 normal operating seasons (8 months) to complete the contract requirements, as opposed to the more usual 3 year time frame.</p> <p>Also, the following contract verbiage will be included in the timber sale contract Prospectus:</p> <ul style="list-style-type: none"> • MARKET RELATED CONTRACT TERM ADDITION: Due to the urgent need to harvest this salvage sale or project, the Market Related Contract Term Addition (MRCTA) is not being offered for this sale or project. • CONTRACT TERM EXTENSION: Due to the urgent need to harvest this salvage sale or project, it is highly unlikely that the Forest Service will grant a contract term extension on this sale or project. • CONTRACT TERM ADJUSTMENT: This sale is in urgent need of harvesting, an extension or contract

			term adjustment may be granted to the purchaser of this sale on other qualifying green Forest Service sales located on the Lassen, Modoc, Plumas, and/or Shasta-Trinity national Forests.
Respondent #3: Dick Artley, letter dated May 12, 2105			
Comment #	Identification	Summary of Comment	Responsible Official's Disposition
3-1	Comment	<p>Supervisor Hayes, the proposed Eiler Fire Salvage and Restoration timber sale shows John Muir had exquisite abilities to predict the future 117 years ago. This tragic project shows that after 53 years the USFS still refuses to accept the wisdom of Rachel Carson. Why am I not surprised? What else could one expect from an agency devoted to generating corporate profit by mistreating and abusing the land owned by 322 million people? Please reexamine whether you really want to sign a DN for this timber sale. Who are you serving ... the recreating public or corporate America? Are you proud?</p> <p>The USFS uses money and brain altering techniques developed by the military to convince resource specialists to do what they would have refused to do before they hooked-up with the agency.</p> <p>Most humans have a natural aversion to killing their fellow man. The military teaches new recruits to kill without guilt.</p> <p>The USFS teaches its employees with the responsibility to protect their resource from harm to abuse and harm their resource without guilt believing they are serving the public by helping to enable a commodity output project.</p> <p>Mr. Rickman, Mr. Peters, Ms. Taylor, Ms. Blaschak, Mr. Gudino, Ms. Sanger, and Ms. Bovee, you all spent at least 4 years of your life and large sums of money to attend college. Experts taught you how to protect your resources. You learned what to do and what not to do. You learned that industrial activity and development of the natural wildness is not consistent with what should be done to assure the proper functioning of fish, wildlife, and soils in the forest. You learned development to suit human needs (mostly to generate profit) decimates the all-important biological diversity in a forest.</p> <p>Then you graduated from college and began searching for a job where you could practice what you had learned.</p>	<p>Comment noted.</p> <p>In the Decision Document for this project, the Responsible Official will document how the best available scientific information was used to inform the assessments and decisions made for this project.</p> <p>The Forest Service has reviewed and considered the opposing science viewpoints provided through the public involvement on this project. All documents referenced in this attachment, unless otherwise noted, are contained in the Project File.</p> <p>There are multiple objectives to the Eiler Project which go beyond salvage logging alone. Objectives for responding to the effects of the Eiler Fire include: reducing safety hazards along roads and trails and at trailheads and recreation sites, as well as in the treatment areas, recovering the value of fire-killed trees, reducing the danger and difficulty of suppressing future wildfires, and re-establishing forested conditions and habitats in burned forest stands.</p> <p>Four planting schemes were used to create heterogeneity with reforestation. Of the 5,645 acres that will be reforested, 2,334 acres (41%) is in conventional planting, 2,255 acres (40%) in cluster planting, and 1,056 (19%) in founders stands. The silviculture report states on pages 22-23: "Planting strategies would be utilized to assist in creating forest heterogeneity at different scales to produce a more disturbance-resilient landscape and enhance ecological function in the future. Topography, slope position, aspect, slope steepness, and soil</p>

	<p>You all chose to work for the USFS. Many of you chose to work for the USFS because you wanted to work outdoors and take action to help the resource you studied.</p> <p>How many of you would have chosen the USFS if you had known the agency was hopelessly dominated by the need to produce timber at any cost? Did you know the USFS had a timber agenda, a timber culture and a timber-based rewards system?</p> <p>After a few years you started to realize this was the case. You couldn't quit because your family had become accustomed to your salary. You needed that salary to make house payments. If you quit you would lose your house.</p> <p>You had no alternative but to hold your nose and do what you were told. For some of you it was quite difficult to leave your ethics and values at the door each morning as you walked into the office. I know. I went through this too.</p> <p>I learned it was quite effective to "monkey wrench" the system by taking home information and send it to environmental groups with attorneys. It helps these groups to more effectively allocate their limited resources if they know the timber sale NEPA documents to focus on and the laws that were violated.</p> <p>If you are careful, this tactic is safe, won't jeopardize your job ... and most of all it makes you feel good about yourself.</p> <p>This is the type of timber sale I'm talking about. You should all be ashamed you have chosen to sell your good name.</p> <p>The IDT members have been carefully selected to casually back-hand the public to please their Supervisor. These IDT members know their resources will be devastated by the timber sale activities, yet they obediently tell the public everything will be fine and doing nothing (No Action) will significantly harm their resources.</p> <p>Before I retired from the USFS as the forest planner, I remember interacting with IDT members who were professionals and not afraid. They would write the truth describing the predicted environmental effects of sale implementation on the natural resources they were responsible for protecting from harm. They would organize data and make cases for the rest of the IDT members to consider modifying the proposed timber sale to eliminate harm (including short-term harm) to their resources. These sale modifications</p>	<p>productivity would be taken into account to create different forest structures on the landscape that mimic those created by an active fire regime. For example in steeper high elevation areas, density and canopy cover would be highest in valley bottoms, decreasing over the midslope and become lowest near and on ridgetops. In lower elevation broad valley bottoms, densities and canopy cover would be lowest near the bottoms and increase with elevation. Density and canopy cover along the hill slope would be higher on northeast aspects compared to southwest and vary with slope becoming more open as slopes steepen. This strategy would not only create heterogeneity to increase resiliency but would also create habitat for species that prefer denser canopy mature forest structures, such as northern goshawks. No reforestation would occur in snag retention leave islands."</p> <p>The importance of snags on the landscape played a role in project development. Approximately 25% of each ground salvage unit and fuels treatment unit will be left untreated in leave islands. In helicopter salvage units, approximately 100 square feet of basal area will be left in snags (EA page 19). In addition, approximately 35% of the project area will not be treated and be allowed to naturally recover. The importance of snags to various species is discussed in the Wildlife BE. .</p> <p>See responses to Opposing Views 1 and 4 in Appendix A of this document.</p>
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		<p>sometimes meant a volume reduction, but in most cases silviculturists and TMAs on the IDT understood the trade-off was warranted. They represented timber but they knew the Responsible Official was responsible for protecting all natural resources in and downstream from the sale area.</p> <p>Based on most effects disclosures in Chapter 3 of the Eiler pre-decisional EA this is not the case here.</p> <p>Supervisor Hayes your IDT members knew their role and were obedient. They knew you expected them to assume a corporate lap-dog role. They knew their job was to provide information and rationale to make the public believe your selection of the Proposed Action alternative is appropriate. Most IDT members complied. They knew they were expected to remember 3 things as they wrote their predicted environmental effects disclosures in Chapter 3:</p> <p>1) First and foremost they knew they must never, ever portray the No Action alternative as an acceptable way to go. NEPA requires the Responsible Official to “consider” the No Action alternative. It’s been at least a decade since a USFS Responsible Official has selected No Action rather than the Proposed Action. An IDT member whose Chapter 3 effects disclosures indicate the positive effects of No Action outweigh the adverse environmental effects of the Proposed Action will never again be an IDT member.</p> <p>How does the USFS playbook suggest this public deception should be done? In most cases the “specialist” describes the true effects in the first sentence of the Chapter 3 No Action effects disclosures. Then they follow-up with “however” or “but” statements that contradict their honest No Action effects disclosure. This is done to make the Responsible Official’s decision to select the Proposed Action easy and non-controversial. Here are examples of this being done in the Eiler pre-decisional EA:</p> <p>Here’s what Mr. Stawiarski wrote:</p> <p style="text-align: center;">Hazard Tree, Area Salvage, and Area Fuels</p> <p>“however this should be minimal as natural regeneration is expected to be low due to the large patch size of high severity fire in the</p>	
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		<p>project area." (page 30)</p> <p>"However, reforestation after salvage logging activities would allow managers to have better control over density, spacing, and desirable conifer species." (page 30)</p> <p>Here's what Mr. Lewis wrote:</p> <p>Smoke and associated particulate matter</p> <p>"However, as discussed earlier, these possible impacts would be mitigated by adherence to the SMP and CARB." (page 40)</p> <p>Here's what Mr. Rickman wrote:</p> <p>Spotted Owl</p> <p>"However, the design of this project was in part based on the assumption that owls will continue to occupy the site, and salvage harvests and fuels reduction activities were minimized in proximity to the activity center location." (page 47)</p> <p>Bumble Bee</p> <p>"However, the proposed action recognized the value of understory vegetation that is promoted and increased by wildfire, and took this value into account when designing reforestation." (page 55)</p> <p>"However, because the importance of understory vegetation was considered in this proposed action, and a large component of this vegetation would be retained in both the short- and long-term, the reductions of this vegetation on private lands within the Eiler Fire area would not represent a substantive cumulative effect for bumble bee habitat on USFS lands." (page 56)</p> <p>Here's what Ms. Blaschak wrote:</p>	
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		<p style="text-align: center;">Water Quality</p> <p>“however, IDFs and BMPs are in place that would reduce risks of any of these concerns measurably affecting water quality.” (page 59)</p> <p>Here’s what Mr. Gudino wrote:</p> <p style="text-align: center;">Cultural Resources</p> <p>“However, it is likely that many fires have occurred in this area and the proposed reforestation will just be another chapter of the ever changing landscape.” (page 68)</p> <p>3) The IDT members must describe the effects of implementing the Proposed Action as being positive and beneficial. In cases where the timber sale will obviously harm and abuse the resources, the USFS playbook suggests the IDT member justify the harm and abuse by telling the public its only “short term” or “temporary.” This unethical, dishonest claim is used in the Proposed Action effects disclosures for most USFS timber sales. The IDT member that writes this garbage fails to explain that “short-term” impacts often have long-lasting adverse effects. Here are examples of this being done:</p> <p>Here’s what Mr. Lewis wrote:</p> <p style="text-align: center;">Air quality</p> <p>“Short-term impacts from smoke and associated particulate matter from the proposed prescribed fire treatments, combined with emissions from other vegetation burning on public and private land, is possible.” (page 40)</p> <p>Here’s what Mr. Rickman wrote:</p> <p style="text-align: center;">Northern goshawk</p> <p>“The salvage treatments under the proposed action may cause minor short-term reductions in foraging opportunities for northern</p>	
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		<p style="text-align: center;">goshawks, but in combination with tree planting would enhance the re-establishment of forest conditions in the long-term." (page 46)</p> <p>Indeed, Mr. Lewis and Mr. Rickman, Mr. Gudino, Ms. Blaschak, and Mr. Stawiarski have successfully done their part to grease the skids for the Eiler timber sale while simultaneously ignoring the damage that logging and roading will inflict to their resources. Does it make you proud and satisfied to know your drove scores of wildlife species from their homes to provide corporate profit opportunities for a corporation with millions \$\$\$ in annual revenues? Do you really believe the USFS when they routinely hammer you with notions that logging and roading activities benefit the natural ecological fabric of any forest? If you do, I'm sorry. It shows me the mind control efforts by the agency have been successful. It must be because you lie about the effects to your resources in Chapter 3.</p> <p><u>Comment:</u> Supervisor Hayes, in the final EA, please provide the public with an explanation of why the predicted effects statements made by a few IDT members in Chapter 3 are inconsistent with hundreds of Ph.D. scientists quoted in <u>Opposing Views Attachments #1 and #4</u>.</p> <p><u>Comment:</u> Supervisor Hayes, please explain how it's possible that the conclusions of a handful of USFS IDT members with financial interest in offering the Eiler timber sale that contradict hundreds of well respected Ph.D. scientists represents "best science."</p> <p><u>Comment:</u> Supervisor Hayes, please ask yourself what the judge will determine to be "best science." Will it be the statements of 6 or 8 of your IDT members, or the research conclusions of hundreds of Ph.D. scientists? As you might know USFS leaders have repeatedly told the public: "agency projects are grounded in best science."</p> <p>Most IDT specialists know the following bulleted items represent the truth. Some enter their denial mode when confronted with these facts:</p> <ul style="list-style-type: none"> • Conifer trees make up just a tiny fraction of the natural resources in the forest, yet the agency's NFTM (timber) budget is more than fisheries, wildlife, soils, heritage and recreation combined.. • All healthy groups of living things include dead and dying individuals. Trees are no exception. Dead trees indicate the forest is a healthy forest, thus It's ludicrous for the USFS to deceive the public by telling them healthy forests are composed of fast growing, vigorous trees. 	
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		<ul style="list-style-type: none"> • In USFS lingo “to manage” and “to log” are synonyms. Rangers and Supervisors are frequently and routinely directed by their supervisors to “manage” the forest. • A biodiverse, fully functioning forest contains many so-called unhealthy stands which are usually low value climax tree species so important to certain wildlife species. The USFS policy is to eradicate this important forest condition, to make room for off-site conifer species with a high mill value such as larch, white pine and ponderosa pine. IDT members know their job requires them to look the other way. • USFS NEPA documents frequently have P&N statements intended to create private, industrial tree farm conditions. These sterile areas are not forests. There is no biodiversity. • Private, industrial tree farm managers strive to create conditions that will foster fast growing, vigorous, large diameter trees ... goals some USFS line-officers try to achieve. • National forests must never, under any circumstances be managed like these private, industrial tree farms ... this includes “suitable” national forest acres. IDT members usually enthusiastically assist the line-officer to destroy biodiversity and create these conditions. This makes IDT members pathetic timber sale enablers masquerading as people who care about the resource they are responsible to protect. • All timber sales must be based on best science and ecological need. The benefits of <u>any</u> USFS timber sale must clearly exceed the harm caused by the timber sale activities to the natural resources in and downstream from the timber sale area. • Logging trees because the silviculturist declares the MAI has culminated and the trees are “decadent” is the agency’s way to guarantee the elimination of old-growth and unique wildlife habitat. • Timber sales proposed on national forest land must <u>never</u> (emphasis added) be based on the opportunity to create conditions that provide corporate profit opportunities. <p>Congress intended the NEPA process to provide “look before you leap” answers for decision-makers. They assumed these Responsible Officials would use the information provided by the IDT to determine whether or not to implement the Proposed Action or an alternative to the Proposed Action. They assumed the IDT members would <u>truthfully</u> describe how proposed projects might affect the resources that are their responsibility to protect. Most of all, Congress promulgated the NEPA to assure the decision-makers</p>	
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		<p>would make decisions that are in the best interest of the public.</p> <p>Mr. Rickman, Mr. Peters, Ms. Taylor, Ms. Blaschak, Mr. Gudino, Ms. Sanger, and Ms. Bovee make it easy for Supervisor Hayes to leap <u>first</u>, deceive the public with pitiful, ridiculous justification to reward the natural resource corporation that purchases the timber sale.</p>	
3-2	Comment	<p>Issue 1 – Competent, professional USFS line-officers don’t backhand and insult the public they supposedly serve.</p> <p>The Eiler pre-decisional EA at page 13 discusses the “issues” submitted by the public associated with the proposed Eiler timber sale. When the public expresses their concern about natural resource harm as part of their comments, they expect the other resource specialists on the IDT who are responsible to protect the natural resources that will likely be harmed by logging to respond with actions to assure the harm does not occur. This isn’t such a difficult concept is it?</p> <p>Supervisor Hayes, describing some issues submitted by American citizen owners of the Lassen National Forest as “non-issues” indicates your unprofessional arrogance and disdain for the public. It shows your willingness to backhand members of the public who even suggest that your sacred timber sale might not be a wise thing to pursue.</p> <p>Who in the hell do you think you are mister? You should be terminated tomorrow for telling a member of the public their concerns are “irrelevant to the decision to be made.”</p> <p>When the public expresses their concern that the health of their favorite amenity resources as part of their comments, they expect the other resource specialists on the IDT that are responsible to protect these amenity resources to respond with actions to assure the harm does <u>not</u> occur.</p> <p>Supervisor Hayes, describing the public concerns as “non issues” indicates your unprofessional arrogance and disdain for the public</p> <p>At page 13 the pre-decisional EA states:</p> <p><i>“The Forest Service considered all potential issues (point of discussion, debate, or dispute). Non-issues are defined as : (1) outside the scope of the proposed action; (2) already decided by law, regulation, Forest Plan, or other</i></p>	<p>Response to comment documents for the scoping period and this Legal Notice and Comment Period will be posted online as the commenter has requested. All documents found in the project record are available by request, and can be sent electronically.</p> <p>The issue analysis found in Table 3 of the Public Scoping Issue Analysis and Alternative Development document used the criteria cited on page 13 of the EA to determine NEPA significance.</p>

higher level decision; (3) irrelevant to the decision to be made; or (4) conjectural and not supported by scientific or factual evidence."

Comment: You reject and dispose of some comments submitted by the public by categorizing them as "non-issues" and simultaneously violating every public involvement law contained in NEPA and NFMA. Why? You know the issues you reject will be nearly impossible to honestly address without jeopardizing your precious volume. Your behavior indicates you believe the text of the laws say Supervisor Hayes is exempted from compliance. Perhaps it's because you know "its done in most NEPA documents prepared by the USFS ... surely I wouldn't be singled out." Americans are learning the USFS routine practice of assigning public input/concerns into "key" and "non-key" issues is a scheme to avoid dealing with difficult issues.

My how handy. You fail to identify the "non-issues" and fail to indicate which of the 5 reasons listed above that make them "non-key issues" exempted the issue from being considered. How will the judge react?

Supervisor Hayes, you clueless, incompetent, irresponsible goon, do you really believe you can get away with this? Congress promulgated laws that require federal officials to facilitate and promote public involvement. You are required to "make diligent efforts to involve the public in preparing and implementing their NEPA procedures." [40 CFR 1506.6(a)] You are required by law to "encourage and facilitate public involvement in decisions which affect the quality of the human environment." [40 CFR 1500.2(d)]

Comment: Supervisor Hayes you know by rejecting certain public comments you violate the law. So what do you do? You hide the evidence in your hardcopy Project File knowing interested members of the public won't drive to Fall River Mills California to discover the issues you determined to be unimportant and why you disposed of them in the unimportant issues bin. How will the judge react? Does making a member of the public drive hundreds of miles to view public information written in a format that could easily be posted online "facilitate public involvement"? A few times I saw the Ranger laugh because she knew the Project File contained nothing about issues. Then she said "who will know."

Supervisor Hayes, you know the public expects the other resource specialists on the IDT responsible to protect the natural resources that will likely be harmed by USFS activities. That's precisely why you chose to hide the so-called "non-issues" from the public in the

		<p>Project File. This is an often-used USFS trick to deceive the public.</p> <p>Mister <u>ALL</u> natural resource concerns submitted by the public are important. Referring to these public concerns as “non-issues” proves your arrogant contempt and disrespect for the people of the United States who pay you to preserve their national forests for future generations. It clearly indicates you are a goon captivated by the opportunity to serve your corporate masters. This will interest the citizens in your area when they read my letters to the editor.</p> <p><u>Request for changes to be made to the final NEPA document:</u> Assure that all issues identified by the public are listed in the body of the NEPA document posted online. The Responsible Official should discuss each issue and describe how the timber sale will be modified to eliminate any chance that resource harm will occur to the resource at issue. Under no circumstances should any issue that’s declared non-issues be hidden away in the Project File at the District.</p>	
3-3	Comment	<p>Issue #2 ----- The Interdisciplinary Team listed in the pre-decisional EA is inadequate to assess and divulge the environmental effects of sale implementation in Chapter 3 on the natural resources that are likely to be affected by the Eiler timber sale.</p> <p>The public expects (and the law requires) <u>ALL</u> USFS line-officers acting in a Responsible Official capacity to staff their IDTs with professionals who specialize in the resources they represent.</p> <p>Chapter 3 contains a section describing the effects to visual quality from implementing the Eiler timber sale, yet there is no landscape architect listed as an IDT member. Ms. Taylor is not qualified to assess visual quality effects.</p> <p>Why am I not surprised the Proposed Action’s effects predicted for visual quality are:</p> <p style="padding-left: 40px;">“Alternative 2 would result in no immediate change to the existing condition.” (page 74)</p> <p>Even a child knows logging 5.6 square miles and constructing 2 miles of road will</p>	Comment noted.

		<p>hammer the visual character of the area the day the sale closes.</p> <p>This is a “duh” moment.</p> <p>Request for changes to be made to the final NEPA document: Add a landscape architect to the IDT and have him/her re-write and modify the analysis of visual quality effects and include the modified visual quality effects writeup in the final EA. Also, assure that this landscape architect is named as an IDT member in the final NEPA document.</p>	
3-4	Comment	<p>Issue #3 ----- The pre-decisional EA fails to describe the effects to fisheries in Chapter 3.</p> <p>Without exception, EAs and EISs for timber sales written on other national forests contain effects write-ups in Chapter 3 addressing how or whether the timber sale will affect fisheries. In spite of the fact this timber sale “could” or “may” affect fisheries, the predicted effects are not disclosed.</p> <p>This is substandard, sloppy IDT work. Competent Responsible Officials would have caught this during review.</p> <p>Request for changes to be made to the final NEPA document: Include discussions, information and data in Chapter 3 showing the effects to fisheries that will result from fisheries logging, road construction and burning that will occur as part of this project. If you feel will not be affected, please describe why.</p>	<p>There are no fish-bearing streams within the proposed salvage logging units. A small unit of hand fuels treatment would be in the outer edge of the Riparian Conservation Area (RCA) of Hat Creek, though this would be buffered by a rocky escarpment and state highway, and risk of sedimentation or ash from pile burning would be extremely low (Hydrology Report, p. 9-10). No roads would be constructed within RCAs (Hydrology Report p. 9). Potential direct and indirect effects to water quality and stream flow are discussed in the hydrology report, and risks were found to be very low to negligible due to lack of mechanical treatments near perennial streams and lack of connectivity of ephemeral drainages within proposed treatment units to downstream waterbodies (Hydrology Report pages 9-10). There are no TES or Forest Service sensitive fish species within the project area (Wildlife BE, p. 5-7).</p>
3-5	Comment	<p>Issue #4 ----- The pre-decisional EA does not discuss how the timber sale’s logging and slash/RX burning activities will be mitigated to assure protected bird species’ individuals and their habitat are not harmed in any way.</p> <p>At page 29 you say:</p> <p>“Additional documents used for the Eiler Project are also available upon request and are hereby incorporated by reference into this assessment, including the following:</p> <p>Migratory Landbird Conservation on the Lassen National Forest, Eiler Project Assessment; Rickman, April 14, 2014 (Migratory</p>	<p>Migratory Landbird Conservation on the Lassen National Forest, Eiler Project Assessment was posted on the project webpage on April 14, 2015 with all the other reports. Also, reports are always available upon request if members of the public have difficulties with the website.</p>

		<p>Landbird Assessment) "</p> <p>Once again, a competent line-office would have included this document in an Appendix.</p> <p>It is not only possible but highly likely that that logging and slash/RX burning will: harm the birds with logging-related pollution, detrimentally alter the bird's habitat, environmentally degrade the area surrounding the bird's habitat, and kill bird chicks by destroying their nests or eggs.</p> <p>Request for changes to be made to the final NEPA document: Include the April 14, 2014 Migratory Landbird Assessment in an Appendix. The body of the EA will identify the birds that exist in and near the project area that are protected under the Migratory Bird Treaty Act and discuss how these birds will be protected during burning and timber harvest operations. The Act makes no allowance to consciously harm these birds for any reason.</p>	
3-6	Comment	<p>Issue #5 ----- The American people do not want their national forests logged for ANY (emphasis added) reason. Supervisor Hayes the money for your salary comes from tax dollars supplied by these same Americans. How do you justify backhanding them?</p> <p>Comment: Even the USFS acknowledges that the public does not want their public lands logged. The following quote comes from a forest service publication that describes what the public wants from their national forests:</p> <p><i>"The public sees the restriction of mineral development and of timber harvest and grazing as being more important than the provision of natural resources to dependent communities (although this is still seen as somewhat important)."</i> (Pg. 28)</p> <p>Source of quote: "Survey results of the American public's values, objectives, beliefs, and attitudes regarding forests and grasslands: A technical document supporting the 2000 USDA Forest Service RPA Assessment". Gen. Tech. Rep. RMRS-GTR-95. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 111 p.</p> <p>Link to Complete Report:</p>	<p>Twelve scoping comment were received for the Eiler Project, many of which were supporting the project, some were against, and some requested modifications. A majority of those respondents are residents of Shasta County and were affected by the Eiler Fire.</p> <p>In general, public comments to LNF vegetation management projects (green and fire affected) are usually split equally for and against. Several studies have found a high level of public support for salvage logging in communities that have experienced a nearby wildfire, or are located in an area where the risk of wildfire is high (Long et al, 2014). See responses to Opposing Views 1 and 10 in Appendix A of this document.</p>

		<p>http://www.fs.fed.us/rm/pubs/rmrs_gtr095.pdf</p> <p>Comment: Supervisor Hayes, there is no “timber famine” as the USFS has been so fond of predicting for many decades. There is no shortage of raw materials for paper and wood products in the United States. Therefore, there is no reason to have commercial timber sales in the national forests. The USFS could stop logging today and the market would never react.</p> <p>Request for changes to be made to the final NEPA document: Include a discussion and supporting data justifying why it’s appropriate to take action on public land that the vast majority of the American public does not want to occur.</p> <p>The discussion should explain why the recommendations of over 500 Ph.D. scientists represented in Opposing Views Attachments #1 and #10 aren’t applicable to the Eiler sale area.</p>	
3-7	Comment	<p>Issue #6 ----- Collaborative group</p> <p>Supervisor Hayes, you use an independently organized collaborative group (CLFR group) to guide your selection of the Proposed Action in lieu of public scoping comments as mandated by NEPA. The interested public does not know why you rely on a small collaborative group with members having unknown natural resource interests and needs. Collaborative group input must not replace public comments.</p> <p>Collaborative groups as used by the USFS today are designed to limit political options, undermine public participation and marginalize any group or individual who will not conform to the federal government’s false premise, inaccurate diagnosis and hidden agenda, which is invariably more and more logging.</p> <p>You have violated Executive Order 13352:</p> <p>“Taking whatever actions the local collaborative group wants is not consistent with the requirement to properly accommodate local participation.” The USFS specialists have the natural resource knowledge and expertise. If the lay members of a local collaborative group propose that the USFS take action</p>	<p>As stated in the EA, (page 5): “...the Collaborative Forest Landscape Restoration (CFLR) program approved Burney-Hat Creek Basins project. The Burney-Hat Creek Basins restoration project is designed to increase the resiliency¹ of the landscape, reduce extreme fire risk, improve forest health and diversity to sustain habitats necessary for a variety of wildlife species, including the California spotted owl in the Burney and Hat Creek watersheds, and support the local economy.” This group was formed in 2009, and has collaborated on restoration projects on both federal and private lands.</p> <p>The Burney-Hat Creek Community forest and Watershed Group has representatives from the Forest Service, private timber companies, recreation enthusiasts, environmental groups, Pacific Gas & Electric, ranchers, timber contactors, Pit River Tribe, Burney Fire District, and Hat Creek Valley Fire Safe Council. Other key partners include the Fall River Resource Conservation District, Sierra Institute for Community and Environment, and the Lassen Volcanic National Park.</p>

¹ Resiliency in this document refers to a forest that is more resilient to disease, insect infestation, fire, and climate change.

		<p>that is either illegal, harms the environment, or does not maximize the protection of public health and safety, the USFS should educate the public.</p> <p>Best science must drive the programs, projects, and activities to protect public health and safety. If the local collaborative group proposes that the USFS take action that is contrary to best science, the USFS should instead educate the public."</p> <p>Executive Order 13352.</p> <p>http://ceq.hss.doe.gov/nepa/regs/Executive_Order_13352.htm</p> <p>Request for changes to be made to the final NEPA document: Include a new section that provides specific information concerning the collaborative group used for project design recommendations. This specific information should include at least 1) each collaborative group member's interest in the proposed sale, and 2) information describing how the collaborative group member is any way linked somehow to woods products.</p>	<p>Topics discussed with the group while planning the Eiler Project included economic recovery, habitat concerns, planting schemes creating heterogeneity, use of prescribed fire, and future fuel loads (Public Scoping Issue Analysis and Alternative Development document).</p>
3-8	Comment	<p>Issue #7 ----- Supervisor Hayes, please post your responses to public comments online as well as maintaining a hardcopy in the Project File.</p> <p>Comment: Members of the public who submit comments on a draft NEPA document make the effort to read the NEPA document closely and take the time to compose comments that reflect their issues. Supervisor Hayes, unless you respond to these comments and allow the public to read your responses they don't know if their comments were read and "considered."</p> <p>Request for changes to be made to the final NEPA document: Post your responses to the comments contained in this document online. Supervisor Hayes, if you choose not to allow the public to read your responses to their comments online then consider this a FOIA for your responses. Assure that they are posted within a day or 2 of the date the final EA is released and the objection period begins. Consider this an official FOIA request. Your FOIA person will know what to do.</p> <p>If a document with Supervisor Hayes' comments cannot be found then this NEPA document clearly violates United States' law.</p>	<p>Response to comment documents for the scoping period and this Legal Notice and Comment Period will be posted online as the commenter has requested. All documents found in the project record are available by request, and can be sent electronically.</p>

3-9	Comment	<p>Issue #8 ----- The pre-decisional EA does not contain <u>recent</u> (emphasis added) stream survey data that is essential to determine whether the stream conditions were harmed by timber sale activities. The only way to determine this is before and after measurements which require survey data before the timber sale is implemented.</p> <p>The Proposed Action map shows many cutting units either adjacent to perennial streams or has perennial streams running through the cutting units. The Proposed Action roads map shows proposed locations for temporary roads crossing perennial streams.</p> <p>Any competent fisheries biologist would insist that stream surveys must be taken before logging and road construction occurs to measure stream temperature and turbidity. These data would then be compared with measurements at the same locations taken during logging and road construction.</p> <p>Since you don't care enough about aquatic health of the area to include a fisheries biologist on the IDT I'm not surprised you have no stream surveys. Its sad they promote people to line-officer positions.</p> <p><u>Comment:</u> Supervisor Hayes, clearly you aren't concerned about how your precious volume removal "treatments" (a.k.a. logging) will adversely affect the aquatic resources in and downstream from the sale area. Why? The pre-decisional EA fails to describe the process of comparing measurable stream data (i.e. temperature, turbidity etc.) taken during monitoring field trips while logging is occurring with the same data taken before logging. This is not done because you know what the comparison will show.</p> <p><u>Request for changes to be made to the final NEPA document:</u> Include the measured results of recent stream surveys and display a stream monitoring schedule to be completed during and immediately following sale closure.</p>	<p>The project does not propose salvage logging or mechanical treatments within the riparian areas (RCA) of perennial streams (EA, p. 28, p. 63 and Hydrology Report, p. 10). Maps of the proposed action and water bodies do not show cutting units adjacent to perennial streams, nor do they show perennial streams running through units (Hydrology Report, Appendix 3, p. 26). Ephemeral drainages within project units only flow during significant snowpack or large storm runoff events (Hydrology Report, p. 4), and lack sufficient water to measure stream temperature and turbidity, and do not connect to downstream water bodies or fish-bearing streams.</p>
3-10	Comment	<p>Issue #9 ---- Increases in logging on the national forest must never be done to enhance the bottom line for multi-million dollar natural resource extraction corporations.</p> <p>One of your purposes listed in the P&N at page 1 for this timber sale is to: "capture the economic value of hazard trees and dead trees"</p> <p>The IDT members include this in their P&N knowing it's a commonly used excuse</p>	<p>There are multiple objectives to the Eiler Project which go beyond salvage logging alone. Objectives for responding to the effects of the Eiler Fire include: reducing safety hazards along roads and trails and at trailheads and recreation sites, as well as in the treatment areas, recovering the value of fire-killed trees, reducing the danger and difficulty of suppressing future wildfires, and re-establishing forested conditions and habitats in burned forest stands.</p>

		<p>intending to convince the public the sale is needed. "Capture" some land ethics Supervisor Hayes. You propose to plunder the Eiler post-fire landscape to provide short-term corporate profit opportunities.</p> <p>Hays, your pre-decisional EA indicates you will request Emergency designation from the Chief. This is insane! It clearly shows you are in bed with corporate America. It clearly shows you are acting out the corporate lap-dog role. My letters to the editor will expose you Hayes. You contemplate declaring an Emergency if a corporation with millions \$\$\$ in annual revenues does not have the chance to earn a few thousand dollars and simultaneously ravage and abuse MY national forest.</p> <p><u>Request for changes to be made to the final NEPA document:</u> Either:</p> <p>1) remove the following statement from the P&N: "capture the economic value of hazard trees and dead trees"</p> <p>2) do not request Emergency authority.</p> <p>Start managing the Lassen National Forest for the public. Even thinking about the need to request an Emergency situation from the Chief is insane. This proves you are beholden to your corporate masters Supervisor Hayes.</p>	<p>Under 36 CFR 218.21(d), a proposed action is not subject to the pre-decisional objection process if the Chief or Associate Chief of the Forest Service determines that an emergency situation exists with respect to all or part of the proposed action or activity. 36 CFR 218.21(b) defines an emergency situation as "a situation on National Forest System (NFS) lands for which immediate implementation of a decision is necessary to achieve one or more of the following: relief from hazards threatening human health and safety; mitigation of threats to natural resources on NFS or adjacent lands; avoiding a loss of commodity value sufficient to jeopardize the agency's ability to accomplish project objectives directly related to resource protection or restoration."</p> <p>The ESD Relevant Information document (Eiler Project Record) on pages 12-13 states "...implementing the project in 2015 would capture the highest timber commodity value possible, thereby allowing the Forest Service to effectively conduct the restoration work associated with removing the burned timber. Finally, implementation of the project in 2015 would address hazards to human health and safety within the project area at the start of the summer season, when this area receives its highest levels of use by the public and personnel conducting land management activities.</p>
3-11	Comment	<p>Issue #10 ----- Federal officials who knowingly take action that will place public health and safety in jeopardy by "concealing" important information violate 18 U.S.C. § 1001 and are thus subject to up to 8 years in prison.</p> <p>The Eiler pre-decisional EA at page 56 states:</p> <p>"Given more thorough salvage harvest which would result in a greater percentage of ground disturbed by machinery than on USFS lands, tighter spacing of planted trees, and potential use of herbicides to control competing vegetation, floral resources on the private lands burned by the Eiler Fire would be expected to be substantially less in both the short- and long-term than on burned USFS lands."</p>	<p>This passage from p. 59 of the EA characterizes the potential use of herbicides on <i>private</i> lands within the Eiler Fire perimeter. No herbicide use is proposed on NFS lands under the Eiler Fire Salvage and Restoration Project.</p> <p>The Eiler Fire Salvage and Restoration Project Invasive Plant Species Risk Assessment was posted to the Eiler Fire Salvage and Restoration Project webpage on April 14, 2015 (Eiler_IPSRA_041415.pdf).</p>

		<p>Incredibly, Ms. Bovee and Ms. Sanger have chosen to hide the type and formulation of herbicide that will be applied. They don't mention it in the text of the pre-decisional EA and they hide the document that might tell the public this important information. At page 29 it states:</p> <p style="padding-left: 40px;">"Additional documents used for the Eiler Project are also available upon request and are hereby incorporated by reference into this assessment, including the following: Eiler Project, Invasive Plant Risk Assessment; Bovee and Sanger, April 14, 2014 (Invasive Plant Risk Assessment)"</p> <p>This document must be included as an Appendix to the final EA.</p> <p>USFS line-officers are responsible for protecting the public during their national forest visits. Supervisor Hayes, how do you sleep knowing you may or might plant the seed for cancer in a child. ALL (emphasis added) recent scientific research conclusions show glyphosate is a potent carcinogen. Don't you read the paper? Here's an example of glyphosate safety science reported on April 26, 2015 reported in Health Impacts News:</p> <p>http://healthimpactnews.com/2015/more-evidence-that-herbicide-glyphosate-causes-cancer/</p> <p>Here's an article published on March 20, 2015 by the Reuters news agency:</p> <p>http://www.reuters.com/article/2015/03/20/us-monsanto-roundup-cancer-idUSKBN0MG2NY20150320</p> <p>In 2014 the Monsanto corporation had a revenue of 15.9 billion dollars. Their lobbying budget was 3.9 million dollars. Don't you think they might have a little pull with 3rd party testing labs?</p> <p>The pre-decisional EA does not indicate the type of herbicide you will use to "release planted seedlings from vegetation competition. Withholding such important information about toxic chemicals from the public is not a trait of a public servant.</p> <p><u>Comment:</u> Supervisor Hayes, as a retired USFS employee I understand that natural vegetation and the resources that depend on the health of the natural vegetation will be</p>	
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		<p>significantly harmed if the non-native invasive plants are not eradicated. I also know there are effective (although more costly) alternatives to killing these plants other than herbicides. If most Americans knew of the tragic results stemming from contact with some herbicides they would insist that the USFS spend the extra money on these safer alternatives.</p> <p>There is information widely available that discusses the dangers and toxicity of some herbicide products sold over-the-counter in America. As you will learn below, other countries protect their citizens by taking the vast amount of scientific information seriously.</p> <p>If these products (in this case herbicides) provide profit for the corporation that manufactures the product, the corporation will stop at nothing to prove their product is safe. Incredibly, some government regulatory agencies (FDA, EPA etc.) choose to look the other way when confronted by these dangers. This is the case with Monsanto and their herbicides that contain glyphosate. There are scores of brand names for herbicides that contain glyphosate. Roundup is the most popular.</p> <p>Indeed, there is a reason the United States is currently having a cancer epidemic much worse than other industrialized countries.</p> <p>Comment: Supervisor Hayes, please read the information below. Then read Opposing Views Attachment #9a. Will you still apply a lethal chemical where children might play?</p> <p><i>"When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."</i></p> <p>Source: http://www.sehn.org/ppfaqs.html</p> <p>Comment: Supervisor Hayes, as you will learn below even casual exposure to herbicides that contain glyphosate is shown in the lab to cause cancer in mammals. Of course now you are wondering what you can do to disprove these science conclusions. You might not even believe that glyphosate is unsafe. I suggest you search the WEB for the 2 words "glyphosate" and "cancer." When you do you will get 79,600 hits. They can be a\read at:</p> <p>http://www.bing.com/search?q=glyphosate+cancer&qsn&form=OBLH&pg=gl</p>	
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[glyphosate+cancer&sc=2-17&sp=-1&sk=&cvid=a9a7e18786764443aa59079d8144f559](https://www.google.com/search?q=glyphosate+cancer&sc=2-17&sp=-1&sk=&cvid=a9a7e18786764443aa59079d8144f559)

Supervisor Hayes, please don't tell the public everything will be fine since you plan to apply the herbicide according to label directions. Monsanto would not dare to say anything that might indicate to the public there are health issues associated with their products. The label directions must not be trusted. Monsanto pays other chemical labs to do the safety research on their glyphosate-containing herbicides. These labs know what Monsanto wants. The label directions printed and composed by Monsanto are based on this type of so-called safety evaluation. It should not be necessary to explain further.

Attachment 9a contains statements by hundreds of well respected Ph.D. scientists who describe their research findings on the safety of herbicides containing glyphosate. Their research indicates glyphosate containing herbicides clearly kill fish at very small concentrations and may be linked to the following health problems in mammals (including humans):

- birth defects,
- non-Hodgkin's lymphoma (a form of cancer),
- mitochondrial damage,
- cell asphyxia,
- miscarriages,
- attention deficit disorder,
- endocrine disruption,
- DNA damage,
- skin tumors,
- thyroid damage,
- hairy cell leukemia (another cancer),
- Parkinson disease,
- premature births,
- decrease in the sperm count,
- harm to the immune system in fish
- death of liver cells,
- severe reproductive system disruptions
- and chromosomal damage.

		<p>Comment: Supervisor Hayes, would you apply a chemical to your yard where children play in the grass that was banned in Denmark 10 years ago because of its lethal effects? See http://www.twinside.org.sg/title/service76.htm</p> <p>Comment: Supervisor Hayes, would you apply a chemical to your yard where children play in the grass that the Institute of Science in Society based in London England calls for banning in England? See:</p> <p>http://www.i-sis.org.uk/about.php and</p> <p>http://www.i-sis.org.uk/Ban_Glyphosate_Herbicides_Now.php</p> <p>http://permaculturenews.org/2012/11/01/why-glyphosate-should-be-banned-a-review-of-its-hazards-to-health-and-the-environment/</p> <p>Comment: Supervisor Hayes, would you apply a chemical to your yard where children play in the grass that Italy wants banned for use in the country? See:</p> <p>http://ultraculture.org/blog/2013/07/24/italy-throw-out-monsanto-us-asleep/</p> <p>Comment: Supervisor Hayes, would you apply a chemical to your yard where children play in the grass that El Salvador banned in October 2013? See:</p> <p>http://www.naturalnews.com/042608_El_Salvador_glyphosate_ban_Monsanto.html#</p> <p>Comment: Supervisor Hayes, would you apply a chemical to your yard where children play in the grass that Sri Lanka banned in March 2014? See:</p> <p>http://www.icij.org/blog/2014/03/sri-lanka-bans-leading-monsanto-herbicide-citing-deadly-disease-fears</p> <p>Comment: If you think it's inappropriate to use chemicals banned for use in other countries in your yard when children play, then why do you propose applying the poison</p>	
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	<p>glyphosate to public land? Please respond. This is not a rhetorical question.</p> <p>Ask yourself why the poison called glyphosate is banned for use in 3rd world countries and still allowed in the United States. Now ask yourself why Congress included Section 735 in the 2013 spending bill (HR 933) that was signed by President Obama. Section 735 is known by many as the "Monsanto Protection Act." See:</p> <p>http://www.ibtimes.com/monsanto-protection-act-5-terrifying-things-know-about-hr-933-provision-1156079</p> <p>Read the literature at the link below to learn what any government agency must do before applying poison:</p> <p>http://www.okanogan1.com/ecology/weeds/risky/Chapter-3.html</p> <p>Comment: Supervisor Hayes, why do you reference the Invasive Plant Risk Assessment; Bovee and Sanger, April 14, 2014 and not include it in an Appendix or provide the public with a link to the electronic version of this document. Of course this is a rhetorical question. Monsanto pays for their safety evaluations. Do you really think Monsanto would risk 14.87 billion dollars by allowing an independent lab to conduct unbiased, honest, science based research on glyphosate safety?</p> <p>Are you still unsure about Monsanto's glyphosate safety? Please read this article in the April 2013 issue of <i>Entropy</i> magazine:</p> <p>http://www.mdpi.com/1099-4300/15/4/1416</p> <p>We know Glyphosate-containing herbicides are potentially lethal... but there is more. Within the last few days new research results have been made public. Roundup is responsible for the massive monarch butterfly population reduction. See:</p> <p>http://www.bing.com/search?q=monarch+decline+Monsanto%E2%80%99s+Roundup+&gs=n&form=QBLH&pg=monarch+decline+monsanto%E2%80%99s+roundup+&sc=0-0&sp=-1&sk=&cvid=d8d3b58795f4444abadf6dc2835f8020</p> <p><i>Glyphosate causes children to be born with birth defects: "Farm families that applied pesticides to their crops in Minnesota were studied to see if their elevated exposure to</i></p>	
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pesticides caused birth defects in their children. The study found that two kinds of pesticides -- fungicides and the herbicide Roundup -- were linked to statistically significant increases in birth defects. Roundup was linked to a 3-fold increase in neurodevelopmental (attention deficit) disorders. [EHP Supplement 3, Vol. 110 (June 2002), pgs. 441-449.]

Monsanto's Roundup Herbicide Threatens Public Health

Rachel's Environment and Health News, issue 751, Sept. 5, 2002.

Reprinted by Organic Consumers Association

<http://www.organicconsumers.org/Monsanto/roundup92502.cfm>

"The establishment of the WHO's Acceptable Daily Intake (ADI) is based on limited studies using limited parameters which do not account for vulnerable groups such as children, the elderly, the sick and other groups that might have increased susceptibility to glyphosate exposure."

Concerns Over Glyphosate Use

The Sun (Malaysia), Friday August 20, 1999

<http://www.poptel.org.uk/panap/archives/glywb.htm>

Would the *Journal of Environmental Research and Public Health* have reason to publish a story that is not true?

Abstract: *The current chronic kidney disease epidemic, the major health issue in the rice paddy farming areas in Sri Lanka has been the subject of many scientific and political debates over the last decade. Although there is no agreement among scientists about the etiology of the disease, a majority of them has concluded that this is a toxic nephropathy. None of the hypotheses put forward so far could explain coherently the totality of clinical, biochemical, histopathological findings, and the unique geographical distribution of the disease and its appearance in the mid-1990s. A strong association between the consumption of hard water and the occurrence of this special kidney*

		<p><i>disease has been observed, but the relationship has not been explained consistently. Here, we have hypothesized the association of using glyphosate, the most widely used herbicide in the disease endemic area and its unique metal chelating properties. The possible role played by glyphosate-metal complexes in this epidemic has not been given any serious consideration by investigators for the last two decades. Furthermore, it may explain similar kidney disease epidemics observed in Andra Pradesh (India) and Central America. Although glyphosate alone does not cause an epidemic of chronic kidney disease, it seems to have acquired the ability to destroy the renal tissues of thousands of farmers when it forms complexes with a localized geo environmental factor (hardness) and nephrotoxic metals."</i></p> <p>Monsanto's Roundup linked to fatal, chronic kidney disease</p> <p>February 2014 issue</p> <p>Link: http://www.mdpi.com/1660-4601/11/2/2125</p> <p>Would the International Agency for Research on Cancer have reason to publish a story that is not true?</p> <p><i>"Analyzing 44 individual research projects published since 1980, the scientists, writing in the International Journal of Environmental Research and Public Health, said that people exposed to the weed killer glyphosate, marketed by Monsanto under the brand name Roundup, had double the risk of developing non-Hodgkin's lymphoma."</i></p> <p>Study: Glyphosate Doubles Risk of Lymphoma</p> <p>By Emily Cassidy, Biofuels Research Analyst</p> <p>AgMag BLOG, May 23, 2014</p> <p>Link: http://www.ewg.org/agmag/2014/05/study-glyphosate-doubles-risk-lymphoma</p> <p>Would the USGS have reason to publish a false report in <i>Environmental Toxicology and</i></p>	
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By Emily Marquez

GroundTruth, July 7, 2014

Link: <http://www.panna.org/blog/roundup-ready-nears-end-line>

"Monsanto's herbicide Roundup has been linked to a mysterious fatal kidney disease epidemic that has appeared in Central America, Sri Lanka and India."

"We know that political changes in Sri Lanka in the late 1970s led to the introduction of agrochemicals, especially in rice farming. The researchers looked for likely suspects. Everything pointed to [glyphosate](#). This herbicide is used in abundance in Sri Lanka. Earlier [studies](#) had shown that once glyphosate binds with metals, the glyphosate-metal complex can last for decades in the soil.

Glyphosate was not originally designed for use as an herbicide. Patented by the Stauffer Chemical Company in 1964, it was introduced as a [chelating](#) agent. It avidly binds to metals. [Glyphosate](#) was first used as a descaling agent to clean out mineral deposits from the pipes in boilers and other hot water systems.

It is this chelating property that allows glyphosate to form complexes with the arsenic, cadmium and other heavy metals found in the groundwater and soil in Central America, India and Sri Lanka. The glyphosate-heavy metal complex can enter the human body in a variety of ways. The complex can be ingested, inhaled or absorbed through the skin. Glyphosate acts like a Trojan horse, allowing the bound heavy metal to avoid detection by the liver, since the glyphosate occupies the binding sites that the liver would normally latch onto. The glyphosate-heavy metal complex reaches the kidney tubules, where the high acidity allows the metal to break free of the glyphosate. The cadmium or arsenic then damages the kidney tubules and other parts of the kidneys, ultimately resulting in kidney failure and, most often, death."

"Monsanto's Herbicide Linked to Fatal Kidney Disease Epidemic: Could It Topple the Company?"

By Jeff Ritterman, M.D.

Truthout, July 10, 2014

		<p>Link: http://www.truth-out.org/news/item/24876-monsantos-herbicide-linked-to-fatal-kidney-disease-epidemic-will-ckdu-topple-monsanto</p> <p>Are you still sure of yourself? Read:</p> <p>http://www.greenmedinfo.com/blog/surprise-monsanto-funded-research-finds-their-products-safe</p> <p>http://kettlerange.org/weeds/Chapter-3.html</p> <p>http://www.boulderweekly.com/article-12640-muzzled-by-monsanto.html</p> <p>http://www.ringoffireradio.com/2013/12/monsanto-wins-journal-retracts-study-citing-dangers-gm-corn-roundup/</p> <p>http://www.panna.org/blog/roundup-cancer-future-food?utm_source=groundtruth&utm_medium=alert&utm_campaign=gt-04-16</p> <p>Supervisor Hayes, most of the human and non-human animal deaths caused by glyphosate exposure will be cancer-related.</p> <p>I suggest you read 18 U.S.C. § 1001 and the Administrative Procedures Act.</p> <p>The courts are aware of the USDA illegal herbicide use. Please see the sample of court cases below. Ignoring this clear evidence violates the APA.</p> <p>In <i>Californians for Alternatives to Toxics, et al. v. Michael Dombeck</i>, Civ. S-00-2016 LKK/JFM (2001), Judge Lawrence Karleton presiding in the United States District Court for the Eastern District of California made the following findings:</p> <p><i>"The Forest Service cannot proceed with the plan until it assesses how use of the herbicides would affect the spread of noxious weeds and considers new information that calls into question earlier Forest Service findings that use of the herbicides would not harm humans and wildlife."</i></p> <p>The choice is yours Supervisor Hayes. Can you now understand that the evidence overwhelmingly indicates glyphosate is a potent carcinogen. There are thousands of</p>	
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		<p>sites on the WEB that clearly indicate glyphosate is potentially lethal. Incredibly, you depend on a single document endorsed by the USDA declaring that glyphosate is safe.</p> <p>There are alternatives to herbicides. Spend a little more money using mechanical and/or biological control. I guarantee you will sleep better ... especially when you think of kids.</p> <p>Glyphosate is driving the Monarch butterfly species to extinction></p> <p>https://mail.google.com/mail/?shva=1#inbox/148043eb3ca4fb6b</p> <p>Please don't do something tragic just because the USFS says you can. It's time for independent thinking isn't it?</p> <p>Monsanto spends millions \$\$ each year on their ongoing PR campaign. Don't believe it.</p> <p>Please familiarize yourself with 18 U.S.C. § 1001 quoted below:</p> <p>(a) Except as otherwise provided in this section, whoever, in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully –</p> <ul style="list-style-type: none"> (1) falsifies, conceals, or covers up by any trick, scheme, or device a material fact; (2) makes any materially false, fictitious, or fraudulent statement or representation; or (3) makes or uses any false writing or document knowing the same to contain any materially false, fictitious, or fraudulent statement or entry; shall be fined under this title, imprisoned not more than 5 years or, if the offense involves international or domestic terrorism (as defined in section 2331), imprisoned not more than 8 years, or both. If the matter relates to an offense under chapter 109A, 109B, 110, or 117, or section 1591, then the term of imprisonment imposed under this section shall be not more than 8 years. <p>(b) Subsection (a) does not apply to a party to a judicial proceeding, or that party's</p>	
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		<p>counsel, for statements, representations, writings or documents submitted by such party or counsel to a judge or magistrate in that proceeding.</p> <p>(c) With respect to any matter within the jurisdiction of the legislative branch, subsection (a) shall apply only to –</p> <p>(1) administrative matters, including a claim for payment, a matter related to the procurement of property or services, personnel or employment practices, or support services, or a document required by law, rule, or regulation to be submitted to the Congress or any office or officer within the legislative branch; or</p> <p>(2) any investigation or review, conducted pursuant to the authority of any committee, subcommittee, commission or office of the Congress, consistent with applicable rules of the House or Senate. - See more at: http://codes.lp.findlaw.com/uscode/18/1/47/1001#sthash.ChXNLypx.dpuf</p> <p>You are not exempt from the provisions of the Administrative Procedures Act. Under the APA, a court may set aside an agency action if the court determines that the action is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A); <i>see also Marsh</i>, 490 U.S. at 375-77 (arbitrary and capricious standard applies to agency findings which involve agency expertise). Here’s an excerpt from this opinion:</p> <p>“Consequently, we may reverse the decision as arbitrary or capricious only if the agency relied on factors Congress did not intend it to consider, entirely failed to consider an important aspect of the problem, offered an explanation that ran counter to the evidence before the agency, or offered one that is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.”</p> <p>Source: <i>SIERRA CLUB v. BOSWORTH</i>. An Appeal to 9th Circuit from the United States District Court for the Eastern District of California, Filed December 5, 2007 http://caselaw.findlaw.com/us-9th-circuit/1175742.html</p>	
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3-12	Comment	<p>Issue #11 ----- The pre-decisional EA maps do not show the proposed cutting units and roads at a large enough scale to be meaningful to the public.</p> <p>The Proposed Action map in the pre-decisional EA map package at page 6 is such a small scale (1" = 1 mile) it's worthless to members of the public. The vast majority of the public that use the Lassen National Forest in or near the Eiler timber sale use the area for recreation.</p> <p>Maps of proposed timber sales are very important to the public. To be useful and worthwhile the sale area maps should be constructed at a scale large enough for the interested public to locate their favorite areas in relation to the proposed location of new cutting units and roads.</p> <p>The small scale maps in this pre-decisional EA mask-over and obscure the details that would show this information.</p> <p><u>Comment:</u> The public examines these small scale maps to determine if their favorite recreational area might be adversely affected by the timber sale. If they are unable to locate their favorite recreation area on the map, the maps are meaningless to them. The members of the public that recreate in the general area of the timber sale are interested in the following:</p>	<p>The map found on page 6 of the EA (Figure 3) is the Eiler Fire Burn Severity based on vegetation change. Detailed maps for each action alternative were found in Appendix A of the EA (which were also posted on the web). Additional maps were found in the following reports:</p> <ul style="list-style-type: none"> • Silviculture – stand maps with treatment tables • Hydrology – action alternatives in relation to hydrology features, RCA locations • Wildlife BE – habitat maps for northern goshawk, California spotted owl, and marten • Soils – erosion hazards and soil compaction <p>Figure 1 (page 2) of the EA was a project vicinity map to give readers an idea of project location and nearby communities.</p>

		<p>How will the sale affect the scenery seen from their favorite developed and dispersed camping location and their favorite hiking and/or horseback riding trails?</p> <p>Will there be sediment producing activities upstream from their favorite fishing location?</p> <p>How will the logging activities affect the hunting in the area? How close is the sale to a favorite hunting location?</p> <p>How will the sale affect the opportunities for bird watching in the area? How close is the sale to productive bird watching areas?</p> <p>How will the sale affect favorite wildlife viewing areas?</p> <p>Some members of the public seek out places of quietness and solitude in their forests to escape modern life. They will want to determine if the sale is close enough to their favorite escape location such that the noise and dust created by logging activities will ruin their experience.</p> <p>How will the sale affect the rafting and/or boating opportunities in the area?</p> <p>The public wants to have the information that will allow them to determine how the proposed sale will affect them personally.</p> <p>Request for changes to be made to the final NEPA document: Please redo the maps at a scale large enough for the public to locate their favorite recreation areas in the sale area. These larger scale maps should show the location of developed campgrounds and the names of the streams in the area. Public disclosure and understanding is the reason to display accurate, useable maps.</p>	
3-13	Comment	<p>Issue #12 ----- The pre-decisional EA fails to evaluate project impacts to climate change and climate change impacts to forest resources and ecosystem services in the sale area.</p> <p>The pre-decisional EA does not consider direct, indirect and cumulative effects to and from climate change. Where have you been? This analysis has been required in USFS NEPA documents for years.</p>	<p>Carbon sequestration was addressed in the silviculture report for each alternative (under the header "Carbon Sequestration" on pages 27, 32, and 35).</p> <p>In addition, research has indicated 2 of California's recent large fires (Rim 2012 and King 2013) released emissions equal to what 3.1 million cars produce in a year. Recent research suggests that total emissions from these two fires represent only a fraction of the total emissions that will come</p>

		<p>Do you really think the WO would have 4 staff members and each Region have at least 1 staff member to advise USFS employees on climate change requirements and protocol if you could choose to ignore climate change in your NEPA documents? Are you aware that the WO has a separate climate change office? I suggest you call these employees to learn your responsibilities.</p> <p>Dave Cleaves, Climate Change Advisor to the Chief, 202-205, 1278</p> <p>Greg Kujawa, Senior Staff Asst, 202-205, 1420</p> <p>Wilma Fant, Staff Asst., 202-205, 0838</p> <p>Cathy Dowd, Natural Resource Specialist, 202-205, 1384</p> <p>Your belief that climate change isn't occurring is irrelevant.</p> <p>It is widely recognized that timber harvest contributes to global carbon emissions and that climate change has significant ramifications for forests and biodiversity. Both the U.S. Supreme Court and Ninth Circuit have recognized that climate change is "an issue of national importance." <i>Massachusetts v. EPA</i>, 549 U.S. 497, 521 (2007); <i>Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin. ("NHTSA")</i>, 538 F.3d 1172, 1221-24 (9th Cir. 2008).</p> <p><u>Comment:</u> The Lassen National Forest's approach to climate change fails to take a "hard look" at carbon storage and climate change impacts on ecosystem services. Simply mentioning "climate change" here and there in a NEPA document does not constitute an analysis. This is not a trivial omission.</p> <p><u>Request for changes to be made to the final NEPA document:</u> Please include a discussion of climate change in the final NEPA document showing:</p> <ol style="list-style-type: none"> 1) how the Eiler timber sale will affect climate change, and 2) how climate change will affect the resources analyzed in Chapter 3. 	<p>from their burn scars over the next few decades as the trees begin to decay. Removal and utilization of woody biomass for energy generation, like fuels treatments proposed in the Eiler Project, can result in a carbon-negative energy production process (Sierra Nevada Conservancy, The State of the Sierra Nevada's Forests Update: Spring 2015).</p>
3-14	Comment	<p>Issue #13 ----- Supervisor Hayes, if you were really concerned about aquatic species' health you would indicate in the final EA that all newly constructed</p>	<p>Comment noted. These roads would not be located in RCAs nor would they cross drainages (Hydrology Report p. 9), and</p>

	<p>temporary roads will be obliterated after use and apply the obliteration method that returns the ground to the natural angle of repose and eliminates the running surface. Not doing so clearly indicates you have no intent of using the road temporarily.</p> <p>Comment: Roads that will be used again in the future must be constructed to system road standards with surfacing and a ditch to reduce sediment generation. If the final EA does not clearly indicate that your proposed temporary roads will be obliterated such that a running surface no longer exists it will show you plan to allow these temporary roads to pump sediment for decades until the so-called temporary road is used again for the next timber sale. Please become familiar with the Clean Water Act.</p> <p>The pre-decisional EA indicates 1 mile of temporary roads will be constructed as part this timber sale.</p> <p>Supervisor Hayes, at page 19 you indicate temporary roads will be decommissioned after use.</p> <p>Comment: Since temporary roads are outsloped with no ditch, sediment that is generated during precipitation events, finds its way to streams and harms the aquatic resources for decades after initial construction ... unless the road is obliterated. No other post-use treatment method (including decommissioning) is as effective at eliminating damage to aquatic resources and subsurface water flow as obliteration.</p> <p>You know this. The reason you aren't oblittering the temp roads is because you plan to use them again when the area is logged next time. Indeed, the USFS does not construct temporary roads.</p> <p>Links to science showing complete obliteration is more effective at reducing long-term sediment generation than any other closure methods are included below:</p> <p><i>"Obliteration Obliteration can be the most effective treatment for both aquatic and terrestrial species. In full obliteration, culverts are removed, road surfaces are ripped and slopes are recontoured (see below for explanations of these treatments). In simple decommissioning, sites (such as stream crossings) are treated, but the segments (such as the roadbed between two stream crossings, or between water bars) are left intact. In obliteration, all sites and segments are treated. Subsurface water flow is no longer</i></p>	<p>therefore would not be hydrologically connected to streams with aquatic habitat.</p> <p>The Environmental Protection Agency exempts certain silvicultural activities, including discharges of logging road-related stormwater runoff, from Clean Water Act permits (40 CFR 122.27), which was upheld by the Supreme Court in the <i>Decker v. Northwest Environmental Defense Center</i> case in 2013.</p> <p>Outsloping roads helps prevent concentration of water within the road prism and minimizes gully and rill formation and sediment production (Coe 2006, MacDonald and Coe 2008. See Hydrology Report p. 17 for full citations).</p> <p>See responses to Opposing Views 4 in Appendix A of this document.</p>
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		<p><i>interrupted, allowing water to flow normally throughout the system and therefore aiding with vegetative recovery and reconnecting fragmented habitat. Recovering the original topsoil may also aid in revegetative success and limit the spread of non-native species on the site. Road obliteration, therefore, addresses both the aquatic/hydrologic and terrestrial problems caused by roads."</i></p> <p>From "AN EXPLANATION AND ASSESSMENT OF ROAD REMOVAL IN VARIED HABITATS" By Bethanie Walder and Scott Bagley Published by the Wildlands Center for Preventing Roads, Missoula, MT</p> <p>Link: http://ntl.bts.gov/DOCS/ICOWET_III/icowet3paper.pdf</p> <p><i>"Unless a road is fully obliterated, it is bound to continue receiving human use and fail to fully revegetate."</i></p> <p><i>"These facts and common sense show clearly that a road will not cease functioning as a road or trail until it is fully obliterated to the point where travel off of the former roadbed is easier than travel on it. As the following discussion on the benefits of road obliteration will show, simply gating a road or taking it off of the inventory does not make the impacts or the road go away."</i></p> <p>From: "Road Obliteration: Benefits to the Watershed and Its Inhabitants"</p> <p>A Swan View Coalition publication by Keith Hammer, 1994</p> <p>Link: http://www.swanview.org/home/articles/reports-documents/road_obliteration_benefits_to_the_watershed_and_its_inhabitants/56</p> <p><i>"We also believe that roads which cannot be properly maintained should be considered for closure or decommissioning, with natural landscapes and drainages restored (i.e., culverts removed). Road density in the Whitetail-Pipestone area is very high and reduction in road density is needed to protect resources. We believe road networks should be limited to those that are necessary for access and management, <u>and which can be adequately maintained within agency budgets and capabilities.</u> Roads that impact water quality, fisheries and/or sensitive and listed wildlife species should be prioritized for closure and/or decommissioning to maximize ecological benefits. We also recommend road obliteration or full road recontour as a preferred method of road</i></p>	
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closure, since it is often difficult to effectively restrict motorized access and protect public lands with simple gated road closures."

From: a November 5, 2008, letter to Bruce Ramsey, Forest Supervisor, Beaverhead-Deerlodge National Forest written by John F. Wardell, Director, EPA Montana Office.

Link:

[http://yosemite.epa.gov/oeca/webeis.nsf/\(PDFView\)/20080402/\\$file/20080402.PDF?OpenElement](http://yosemite.epa.gov/oeca/webeis.nsf/(PDFView)/20080402/$file/20080402.PDF?OpenElement)

"Obliteration and road removal have a different goal than restricting motorized access. The objective is to discourage and prevent all activities on the road, including foot travel, terminate further erosion to prevent mass failures, and reestablish the natural landscape. Road obliteration and related restoration work are steps in environmental healing and initiating positive trending in natural processes (USDA 1996)."

Source: <http://www.wildlandscpr.org/files/FieldGuideRdClosures.pdf>

To reduce confusion, here are definitions of road obliteration:

"obliteration - to completely remove the road feature from the landscape.

This is accomplished by full recontouring. See full recontouring."

"full recontouring - the treatment of a road that completely eliminates (obliterates) the road from the landscape. Full recontouring is accomplished by recovering all available fill and burying the cutbank until the surrounding terrain is fully matched. This type of treatment is also referred to as road removal or road obliteration. See obliteration."

Source:

http://www.parks.ca.gov/pages/23071/files/fullroadrecontourbmp5_03.pdf

Here's what the EPA recommends:

"Road closure and obliteration is one of the most important methods used to improve and protect watersheds within the National Forests of the Pacific Northwest. These are generally compacted, have little sideslope, and usually have grades less than 15%. Road obliteration is the process of removing and

		<p>treating roads, resulting in partial to complete recontouring of the site to match the surrounding natural terrain. The main objectives of forest road obliteration are to restore hillslope hydrology, decrease surface erosion and the risk of mass wasting, and promote the re-establishment of native vegetation." (page 2)</p> <p>Source: http://www.epa.gov/wastes/conservation/tools/greenscapes/pubs/compost-uw.pdf</p> <p>Here are links to other sources clearly showing the superiority of road obliteration:</p> <p>http://www.swanview.org/home/articles/reports-documents/road_obliteration_benefits_to_the_watershed_and_its_inhabitants/56</p> <p>http://www.parks.ca.gov/pages/939/files/Full%20Road%20Recontour.pdf</p> <p>After the temp roads are obliterated or decommissioned they must be monitored over time to assure they are not generating sediment. This pre-decisional EA contains no such monitoring plan.</p> <p>The forest service discusses the need to monitor road decommissioning methods:</p> <p><i>"Several national forests have developed road decommissioning monitoring plans. This report builds on their hard work and careful thought to creating a successful monitoring plan. Instead of advocating one method or process for each monitoring project and budget, this document enables selection of the monitoring technique(s) for each situation. Monitoring forms and protocols are attached that can help a district or forest interdisciplinary team design a road decommissioning monitoring program for their area."</i></p> <p>From : "Road Decommissioning" by Carolyn Napper, USFS Soils Scientist</p> <p>A USDA Forest Service Technology and Development paper</p> <p>Link to paper: http://www.fs.fed.us/t-</p>	
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		<p>d/programs/im/road_decomission/road_decommissioning.shtml</p> <p>Comment: Obviously, you ignore agency policy. Supervisor Hayes, the pre-decisional EA contains nothing to indicate why temp road monitoring is not necessary on this project.</p> <p>Please see <u>Opposing Views Attachment #4.</u></p> <p>Request for changes to be made to the final NEPA document: Please indicate all temporary roads will be obliterated after use and tell the public this will be done in the draft decision document, or provide scientific information authored by independent scientists in the response to comments that indicates there are other methods as effective at long term sediment elimination as obliteration.</p> <p>Please define road obliteration using the statement below (or something similar) in the draft decision document to eliminate confusion:</p> <p style="padding-left: 40px;">When roads are obliterated the road is completely eliminated from the landscape. Full recontouring is accomplished by recovering all available fill and burying the cutbank until the surrounding terrain is fully matched.</p> <p>Also, please assure the final NEPA document describes the road obliteration monitoring plan to assure the sediment is being reduced as expected. The resulting draft decision documents should indicate the USFS will provide funding for the monitoring and accomplish the monitoring.</p>	
3-15	Comment	<p>Issue #14 ----- Supervisor Hayes, please respond to the opposing views contained in the <u>Opposing Views Attachments</u> to these comments to the comments.</p> <p>Request for changes to be made to the final NEPA document: Each opposing viewpoint is different and is related to a unique subject, therefore a single response attempting to deal with all opposing views simultaneously does not respond to opposing views as required by law. Please respond to each opposing view and post the responses online for the public to see. Simply placing a hardcopy of your opposing views responses in the project file located at the district hides the information from the American public.</p> <p>How will the judge react when he/she finds out you expected the public to drive</p>	<p>In the Decision Document for this project, the Responsible Official will document how the best available scientific information was used to inform the assessments and decisions made for this project.</p> <p>The Forest Service has reviewed and considered the opposing science viewpoints provided through the public involvement on this project. All documents referenced in this attachment, unless otherwise noted, are contained in the Project File.</p>

		thousands of miles to examine a document that legally must be available to the public?	
3-16	Comment	<p>Issue #15 ----- The Proposed Action will clearly cause the resource degradation and destruction described in the ATTACHMENTS to these comments.</p> <p>The attachments to these comments present the “responsible” opposing views of between 500 and 600 independent, unbiased Ph.D. biological scientists who describe the resource damage caused by commercial timber sale logging and road construction activities that occur at any location, on any topography, at any elevation, at any time logging takes place.</p> <p>The Johnson Bar timber sale will cause major damage to non-vegetative natural resources described by over 400 scientists in the <u>Opposing Viewpoint Attachments</u>. Forging ahead with the timber sale with full knowledge of the likely resource damage that the sale will cause indicates 1) weighing the relative value of the natural resources in the area against timber outputs has not been done, and 2) they have not been harmoniously coordinated. Also, since outdoor recreation, watershed, wildlife and fish are adversely affected by the sale, you obviously consider timber more important than these 4 other resources.</p> <p>Request for changes to be made to the final NEPA document: Include the source literature for particularly relevant science quotes contained in the <u>Opposing Viewpoint Attachments</u> in the References section of the final EIS and cite the quotes contained in the attachments in the body of the final EIS. Indeed, it makes sense for a public servant to present the public with the whole story which includes benefits and drawbacks of project implementation.</p>	<p>It is unknown where the “Johnson Bar timber sale” is located and how it pertains to the Eiler Project.</p> <p>In the Decision Document for this project, the Responsible Official will document how the best available scientific information was used to inform the assessments and decisions made for this project. References cited in all resource reports were used specifically for the Eiler Project analysis. An agency must have discretion to rely on the reasonable opinions of its own qualified experts (see Earth Island Institute v. United States Forest Service, Order September 26, 2011).</p> <p>The Forest Service has reviewed and considered the opposing science viewpoints provided through the public involvement on this project. All documents referenced in this attachment, unless otherwise noted, are contained in the Project File.</p>
3-17	Comment	<p>Issue #16 ----- Had Congress anticipated federal officials would confuse and deceive the public to further the agency agenda they would have promulgated laws prohibiting such disgraceful behavior.</p> <p>Most USFS line-officers understand that there are other natural resources in the forest besides merchantable trees.</p> <p>You actually tell the public the Eiler commercial timber sale will “restore soils” and “restore the natural landscape and improving long term visual quality.” This shows your soils scientist and recreation officer will tell the public anything to grease the skids for the</p>	<p>There are multiple objectives to the Eiler Project which go beyond salvage logging alone. Objectives for responding to the effects of the Eiler Fire include: reducing safety hazards along roads and trails and at trailheads and recreation sites, as well as in the treatment areas, recovering the value of fire-killed trees, reducing the danger and difficulty of suppressing future wildfires, and re-establishing forested conditions and habitats in burned forest stands.</p> <p>No roads would be constructed within RCAs (Hydrology Report p. 9). Potential direct and indirect effects to water quality and stream flow are discussed in the hydrology report,</p>

	<p>Eiler timber sale. You have reason to hang your head with these IDT members.</p> <p>Comment: Supervisor Hayes, you accepted and acted on the recommendations to log 5.6 square miles and construct 1 mile of road to reach these trees owned by 318 million Americans from Mr. Stawiarski, Ms. Harrison-Smith, Mr. Nagel, and Mr. Lewis. Their tragic advice was supported by the members of the IDT. Will you still choose to accept the advice of 3 to 4 of your employees with financial incentive to sell this timber sale after you read the research conclusions of hundreds of Ph.D. scientists? Here is a tiny sample of the quotations contained in <u>Attachments #1 and #4.</u></p> <p>“I recently read a letter from a line officer who chided local managers for being behind schedule relative to meeting the region’s ‘timber targets.’ My expectation is that line officers will demand similar accountability for meeting watershed restoration, fish and wildlife habitat, riparian, recreation, cultural resource, and wilderness management goals.” Dombeck, Mike Ph.D. a message on "Conservation Leadership" sent to all USFS employees on July 1, 1998 http://www.wvhighlands.org/VoicePast/VoiceAug98/Dombeck.Aug98.html</p> <p>“For much of the past century the Forest Service, entrusted as the institutional steward of our National Forests, focused its management on an industrial-scale logging program. The result of the massive logging and road construction program was to damage watersheds, destroy wildlife habitat and imperil plant and animal species.” Ehrlich, Anne Ph.D., David Foster Ph.D. and Peter Raven Ph.D. 2002 “Call to End Logging Based on Conservation Biology.” <i>Native Forest Network.</i> http://www.nativeforest.org/campaigns/public_land/stb_5_30_02.htm</p> <p>“We do not believe, however, that scientific literature or forestry experience supports the notions that intensively managed forests can duplicate the role of natural forests, or that sufficient knowledge and ability exist to create even an approximation of a natural old-growth forest stand.” (page 3) Franklin, Jerry F. Ph.D. and James K. Agee Ph.D. 2007. “Forging a Science-Based National Forest Fire Policy.” <i>Issues in Science and Technology.</i> A National Wildlife Federation publication sponsored by the Bullitt</p>	<p>and risks were found to be very low to negligible due to lack of mechanical treatments near perennial streams and lack of connectivity of ephemeral drainages within proposed treatment units to downstream waterbodies (p. 9-10). There are no TES or Forest Service sensitive fish species within the project area (Wildlife BE, p. 5-7)</p> <p>Integrated Design Features are included for both action alternatives (EA pages 23-31). “IDFs are protection measures that are developed by specialists and incorporated as part of all action alternatives for the project. They would be in addition to standards and guidelines from Best Management Practices (BMPs) and the Lassen LRMP, as amended. These IDFs are implementation parameters that would be incorporated into treatments, contracts, or used to guide Forest Service personnel in conducting implementation” (EA page 23). IDFs are included for the following resources:</p> <ul style="list-style-type: none"> • Air Quality • TES and Special Interest Plant Species • Invasive Plants • Cultural Resources • Fuels • Recreation and Visual Quality • RCAs • Silviculture • Soils • Wildlife
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		<p>Foundation http://www.coastrange.org/documents/forestreport.pdf "Roads often cause serious ecological impacts. There are few more irreparable marks we can leave on the land than to build a road." Dombeck, Mike Ph.D., US Forest Service Chief, 1997-2001 Remarks made to Forest Service employees and retirees at the University of Montana. February 1998. https://www.uwsp.edu/cnr/gem/Dombeck/MDSpeeches/CD%20COP%20Y/Chief%20Mike%20Dombeck%27s%20Remarks%20to%20Forest%20Service%20Employees%20and%20.htm</p> <p>"Rarely can roads be designed and built that have no negative impacts on streams. Roads modify natural drainage patterns and can increase hillslope erosion and downstream sedimentation."</p> <p>Furniss, Michael J., Michael Love Ph.D. and Sam A. Flanagan "Diversion Potential at Road-Stream Crossings." USDA Forest Service. 9777 1814—SDTDC. December 1997. http://www.stream.fs.fed.us/water-road/w-r-pdf/diversionpntl.pdf "Roads and skid trails have been identified as a major contributor to increased turbidity of water draining logging areas resulting in increases from 4 to 93 parts per million (Hoover, 1952). Forest roads have been found to have erosion rates from one to three orders of magnitude greater than similar undisturbed areas (Megahan, 1974) and perhaps account for as much as 90 percent of all forest erosion (Megahan, 1972). Forest roads can also cause soil erosion and stream sedimentation, which adversely impact on the nation's water quality." (Authur et al., 1998). Grace, Johnny M. III Ph.D. 2003. "Minimizing the impacts of the forest road system." In: Proceedings of the conference 34 international erosion control association; ISSN 1092-2806. [Place of publication unknown]: International Erosion Control Association: 301-310. http://www.srs.fs.usda.gov/pubs/ja/ja_grace011.pdf</p> <p>Idaho's senior Senator Crapo won't be amused when he discovers this.</p>	
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		<p><u>Request for changes to be made to the final NEPA document:</u> Tell the truth! Don't overstate and/or exaggerate the timber sale's benefits to the environment.</p> <p>Assure that all natural resource conclusions are substantiated and supported by scientific evidence consistent with the science statements contained in <u>Attachments #1 and #4.</u> insure that timber will be harvested from National Forest System lands only where protection is provided for other resources, avoid actions that do not protect, restore, and enhance the environment as discussed in the Opposing Views Attachments, and avoid any possible adverse effects of their actions upon the environment discussed in the Opposing Views Attachments.</p>	
3-18	Comment	<p>Issue #17 ----- Supervisor Hayes, you have consciously selected literature for the References section that excludes science describing how logging will adversely affect non-timber natural resources in the sale area.</p> <p>Professionals do not selectively choose literature citations that will support their case and systematically exclude those that don't.</p> <p>The majority of your references are biased, since they were authored by forest service employees. Even random selection of science literature related to logging would have included several of the hundreds of science documents contained in the <u>Opposing Views Attachments.</u></p> <p>None of this literature is listed in the References.</p> <p>Supervisor Hayes, you were encouraged to sell the Eiler timber sale by Mr. Stawiarski, Ms. Harrison-Smith, Mr. Nagel, and Mr. Lewis. These individuals have financial interest in the sale. The quotes by hundreds of Ph.D. scientists in the <u>Opposing Views Attachments</u> describe the resource damage that logging at any location is at odds with the IDT claims the sale will benefit and restore the natural resources in the area. Anyone (including a judge) would agree that the research conclusions of hundreds of well respected scientists (many college professors) represents best science. Your proposal to offer the Eiler timber sale in spite of the scientist's conclusion ignores best science, therefore you 1) violate the law, and 2) reject your responsibility to serve the recreating public. See below.</p> <p>"This uncertainty has affected the ability of the Forest Service to utilize fully the provisions of § 219.35 paragraph (a) to consider the best science available in</p>	<p>In the Decision Document for this project, the Responsible Official will document how the best available scientific information was used to inform the assessments and decisions made for this project. References used for each resource report are found at the end of each report.</p> <p>The Forest Service has reviewed and considered the opposing science viewpoints provided through the public involvement on this project. All documents referenced in this attachment, unless otherwise noted, are contained in the Project File.</p> <p>References cited in all resource reports were used specifically for the Eiler Project analysis. An agency must have discretion to rely on the reasonable opinions of its own qualified experts (see Earth Island Institute v. United States Forest Service, Order September 26, 2011).</p> <p>The four IDT members listed have no financial interest in the Eiler Project.</p> <p>See responses to Opposing Views in Appendix A of this document.</p>

		<p>plan amendments and project decision making. For example, while population data have been held to be required for management indicator species under the 1982 rules, other tools often can be useful and more appropriate in predicting the effects of projects that implement a land management plan, such as examining the effect of proposed activities on the habitat of specific species; using information identified, obtained, or developed through a variety of methods, such as assessments, analysis, and monitoring results; or using information obtained from other sources such as State fish and wildlife agencies and organizations such as The Nature Conservancy. The purpose of this interpretative rule is to clarify that, both for projects implementing plans and plan amendments, paragraph (a)'s mandate to use the best available science applies."</p> <p>"The transition provisions as originally enacted, and now twice amended, explicitly refer to the 1982 planning rule as the rule "in effect prior to November 9, 2000." At the same time, given the extension of the effective date of paragraph (d), within which site specific decisions must comply with the 2000 planning rule (68 FR 53294), it is clear that site-specific decisions entered into during the transition period are not to comply with the substantive provisions of the 2000 planning rule. This interpretative rule clarifies that until a new final rule is promulgated, the transition provisions of the 2000 planning rule, as amended by the May 2002 interim final rule remain in effect, including the requirement of § 219.35 paragraph (a) of the transition provisions that responsible officials consider the best available science in implementing national forest land management plans and, as appropriate, plan amendments. Pursuant to paragraph (b), the provisions of the 1982 planning rule may continue to be used only for plan amendments and revisions upon election of the responsible official. Appropriate plan amendments and projects proposed during the transition period should be developed considering the best available science in accordance with § 219.35 paragraph (a)."</p> <p style="text-align: center;">Federal Register / Vol. 69, No. 188, page 58056</p> <p style="text-align: center;">Wednesday, September 29, 2004</p> <p style="text-align: center;">Rules and Regulations</p> <p style="text-align: center;">http://www.fs.fed.us/r1/projects/plan_rule/intrpretative-rule.pdf</p>	
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		<p>Request for changes to be made to the final NEPA document: Include some source documents from the Opposing Views Attachments in the References section of the final EA. Also, cite the specific quotes presented for the source literature chosen by this member of the public in the text of the EA. Not doing so and searching the source literature for benign statements to cite will continue your selective use of information that <u>only</u> provides information that supports your timber sale. Don't try to trick the public into supporting the sale by hiding important information. Finally, include clickable links to each Opposing Views Attachments you choose to include in your reference section and explain why this is best science and trumps the information presented in the EA.</p> <p>The public deserves to be informed of this information so they can make an informed decision to support or oppose the timber sale based on <u>complete</u> data.</p>	
3-19	Comment	<p>Issue #18 ----- Logging does not Restore the Forest</p> <p>Definitions of "restoration":</p> <p>Oxford Dictionary -- Bring back (a previous right, practice, custom, or situation); reinstate:</p> <p>Webster -- to return (something) to an earlier or original condition by repairing it, cleaning it, etc.</p> <p>Cambridge Dictionary -- to return something or someone to an earlier condition or position , or to bring something back into existence :</p> <p>Collins Dictionary -- to return (something, esp a work of art or building) to an original or former condition</p> <p>Comment: Anyone with basic knowledge of forest ecology knows that all forests pass through many, many different states until they return to the original. Each state is biodiverse ... if humans keep away. There is no ecological reason to return to any specific forest state that existed in the past. None are ecologically any better than any other. It's sad that humans hopelessly overcome by greed and the need for money tell the public a forest state with large trees with high lumber value is needed and tell them its needed to enhance the forested ecosystem. The only thing this enhances is the purchaser's profits the next time it's logged.</p>	<p>In the Decision Document for this project, the Responsible Official will document how the best available scientific information was used to inform the assessments and decisions made for this project. References used for each resource report are found at the end of each report.</p> <p>The Forest Service has reviewed and considered the opposing science viewpoints provided through the public involvement on this project. All documents referenced in this attachment, unless otherwise noted, are contained in the Project File.</p> <p>References cited in all resource reports were used specifically for the Eiler Project analysis. An agency must have discretion to rely on the reasonable opinions of its own qualified experts (see Earth Island Institute v. United States Forest Service, Order September 26, 2011).</p> <p>See responses to Opposing Views 21 in Appendix A of this document.</p>

		<p><u>Comment:</u> Supervisor Hayes, you are allowing money to drive this sale. Incredibly, you propose to eliminate the biodiversity of the area to create an artificial forest condition that you hope will have low logging costs and high timber value the next time it's logged.</p> <p><u>Comment:</u> Supervisor Hayes, you know inflicting resource damage with commercial logging (a.k.a. euphemistically called mechanical treatment by the USFS) does not "restore" the countless natural resources that exist in a fully functioning forest. You do not tell the public how you determined the past forest condition you are trying to recreate with logging.</p> <p><u>Comment:</u> Supervisor Hayes, the percentage of the general public becoming aware that money drives USFS actions is growing. Do you enjoy tricking and deceiving the public? You provide no scientific references that even eludes to the notion that commercial logging restores the natural resources in the forest. Remember, a forest has countless more natural resources besides merchantable conifer trees. You know logging does not "restorr" the forested ecosystem? We both know you are really trying to create private industrial tree farm conditions in the sale area.</p> <p>The USFS has been aware that most American citizens do not want their national forests logged. I remember when the USFS used the terms logging and timber sales. In 2008 Chief Kimbell directed all USFS line-officers to instead use the term "restoration project" as you have done here. She thought that using a euphemism for logging would cause the public to believe logging is a good thing that should occur.</p> <p>You know the only thing logging and road construction activities in the forest restore is the purchaser's financial bottom line. Does it make you proud to use the public's tax dollars to deceive and trick them? Are you proud?</p> <p>Do you really think the specialists on the IDT don't know your real motives for proposing this commercial timber sale? Do you believe they respect and admire USFS line-officers who use taxpayer's money to provide short-term corporate profit opportunities and simultaneously lie to the public about how this forested condition is needed? Do you really think most IDT members believe that the trees in the sale area must be commercially logged to resemble some previous forested state that never existed? Most IDT members know the forest in the sale area is current functioning properly. Do you really think these specialists believe turning 30,000 pound pieces of industrial equipment with spinning wheels and tracks loose in the fragile forested ecosystem restores</p>	
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		<p>anything but the purchaser's financial bottom line?</p> <p>Katz (1991) critiques the USFS claim that a commercial timber sale restores the ecosystem and creates a healthier forest: <i>"A 'restored' nature is an artifact created to meet human satisfactions and interests...it is an unrecognized manifestation of the insidious dream of human domination over nature. Once and for all, humanity will demonstrate its mastery of nature by "restoring" and repairing the degraded ecosystems of the biosphere."</i></p> <p>Comment: Supervisor Hayes, on November 6, 2001 USDA Assistant Inspector General for Audit Richard D. Long mailed the "Western Region Audit Report: Forest Service National Fire Plan Implementation" to Chief Bosworth. The report stated: "We concluded that commercial timber sales do not meet the criteria for forest restoration." (Pg. 11)</p> <p>Link to Report No. 08601-26-SF: http://www.usda.gov/oig/webdocs/08601-26-SF.pdf</p> <p>Do you routinely ignore the USDA Inspector General's office?</p> <p>Comment: Supervisor Hayes, you can cite any definition of restoration conjured up by the USFS you want to counter my argument that the reason you claim this is a "restoration" sale is to trick the public. When the judge compares this with the clear language of the "Western Region Audit Report" who will he/she believe?</p> <p>Comment: Supervisor Hayes, if you still believe logging restores, improves and creates a healthier forested ecosystem, please see Opposing Views Attachment #21. You can be sure your agency takes extraordinary measures to assure these science papers authored by Dr. Platt, Dr. Thomas, Dr. Veblen, Dr. Ingalsbee, Dr. Peters, Dr. Roberson, Dr. Power, and Dr.Partridge are never read by USFS employees. Do you believe these 8 well-respected scientists are radical environmentalists? Why then do you reject their research conclusions?</p> <p>Request for changes to be made to the final NEPA document: Give the public the whole story. In order to provide meaningful, well informed comments the public must be exposed to the pros <u>and</u> cons of logging. It's unprofessional to withhold this important information written by experts that criticize projects such as yours. Please include and</p>	
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		<p>cite the quotes in the 8 papers referenced above the References section of the final EA.</p> <p>"Restore" your honor!</p>	
3-20	Comment	<p>Issue #19 ----- Logging Road Construction causes Significant Ecological Harm. Please Analyze an Alternative in Detail that does not Construct any New Roads(temporary or system). Such an alternative is not Unreasonable.</p> <p>Sadly, a connected action to the timber harvest in the Proposed Action is to construct 1 mile of new road.</p> <p>There is enough drive-able road on national forest land to reach the moon and halfway back yet you want more! This is criminal.</p> <p>A no road construction and reconstruction alternative will likely reduce the sale volume slightly. However, it stands out among the possible action alternatives that could be analyzed in detail because it reduces the adverse environmental effects of logging while still meeting the purpose and need for the project.</p> <p>Comment: Please don't tell me you will not analyze a "no new road" alternative in detail because the P&N will not be met. The P&N does not specify a certain number of treatment acres. The "no new roads" alternative will reduce the acres logged, but will still meet the P&N. You know this.</p> <p>Comment: Without exception, road construction and reconstruction is an activity that causes damage to some important natural resources in the forest. New road construction is particularly detrimental to aquatic and wildlife resources. Chief Dombeck's statement below supports this fact.</p> <p><i>"Roads often cause serious ecological impacts. There are few more irreparable marks we can leave on the land than to build a road."</i></p> <p>Dr. Mike Dombeck, Chief, US Forest Service</p> <p>Remarks to Forest Service employees</p>	<p>Alternative 3 (Roadside Hazard Only) did not include any road construction. This alternative was fully analyzed in detail and discussed in the Eiler EA.</p> <p>See response to comment 3-17. IDF's are included in the project proposal to protect resources, including streams, soils, and wildlife habitat (EA, pages 23-31). For example, lopping and scattering activity slash across skid trails in riparian areas would occur to prevent erosion.</p>

		<p>and retirees at the University of Montana</p> <p>February 1998</p> <p>Link to statement: https://www.uwsp.edu/cnr/gem/Dombeck/MDSpeeches/CD%20COPY/Chief%20Mike%20Dombeck%27s%20Remarks%20to%20Forest%20Service%20Employees%20and%20.htm</p> <p>Attachment #4 contains statements by hundreds of Ph.D. scientists describing Chief Dombeck’s observations in greater detail.</p> <p>Comment: Since best science and Chief Dombeck agree that there are few more irreparable marks we can leave on the land than to build and reconstruct road, this is a valid reason to analyze this alternative in detail.</p> <p>Here’s something that will educate the IDT members:</p> <p>“Summarize, as relevant, information from scoping (Step 4 above). In this summary, highlight decisions your team made regarding possible alternatives and potential mitigations that link to different alternatives. This information should further prove that your team was open to different alternatives, especially any that the public suggested.”</p> <p>“Remember not to be silent about the reasons for considering some alternatives and ignoring others. Silence is a gift to a possible plaintiff. So plan for and provide even a brief rationale about your range of alternatives. Such a discussion is especially important if your EA or EIS includes only a single action alternative. A single action alternative is a risky agency choice, especially if you determine that your EA or EIS is likely to be a high-risk and controversial document.”</p> <p>Range of Reasonable Alternatives Feature Article, November 2009 by Larry Freeman, PhD</p>	
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		<p>The Shipley Group, <i>Senior Consultant</i></p> <p>Link: http://www.shipleygroup.com/news/articles/0911.pdf</p> <p>Comment: Supervisor Hayes, you ignore Shipley Group NEPA recommendations. Doesn't the USFS spend millions of dollars to hire this company to teach agency employees how apply the NEPA process? Are your qualifications comparable to Dr. Freeman who works for the Shipley Group?</p> <p>Comment: The Administrative Procedures Act directs judges to set aside an agency action if the court determines that the action is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). An agency that ignores the preponderance of available information and instead makes a Decision on insubstantial, weak, meager evidence provided by people with financial interest in a Decision being decided one way and literature authored by biased, agency employees who know they must never discuss timber sales in a negative way is guilty of violating the APA.</p> <p>Request for changes to be made to the final NEPA document: Analyze a no road construction (including temp roads) alternative <u>in detail</u> and display the results in the final EA.</p>	
3-21	Comment	<p>Issue #20 ----- Supervisor Hayes not only are you Breaking the Law with the Pre-Decisional EA for the Eiler Timber Sale, but you Violate the Public Trust for Personal Gain</p> <p>Tragically, your proposed forest plan Amendment # assaults the recreating public</p> <p>At page 13 you state:</p> <p>"The decision would also determine whether or not to allow a non-significant Forest Plan amendment for a project-specific deviation from the current LNF LRMP standard and guideline to adjust project impacts and/or timing to keep disturbance below the appropriate threshold of concern in all affected watersheds. This non-significant Forest Plan amendment would permit project</p>	<p>Alternative 1 for the Eiler Project proposes actions within one subwatershed, Eiler Gulch, which is currently over the TOC due to large patch size of moderate-to-high soil burn severity resulting from the Eiler Fire in 2014, and subsequent post-wildfire actions completed or proposed on private lands following the wildfire event. These actions included in Alternative 1 would not meet the Lassen LRMP standard and guideline to alter timing of projects to stay below the TOC, however implementing Alternative 1, the subwatershed would drop below the TOC within five years post-action. Additionally, the Eiler Gulch subwatershed has minimal drainage development and lacks surface connectivity to downstream perennial waterbodies, including Hat Creek. Surface flow in this subwatershed, when it exists, is ephemeral in nature, and ends in either brush fields or basalt lava flows. The project</p>

		<p>actions that would aid in protecting watershed resources.”</p> <p>Supervisor Hayes you must believe your constituents are idiots. You propose to violate your Plan that limits activities to protect watersheds to protect watersheds. What will the recreationists think when they read about your proposed plunder in the newspaper?</p> <p>Supervisor Hayes Congress promulgated the NFMA which required the USFS to prepare forest plans. The law directed USFS line-officers to manage the public land according to the plans. This meant the USFS line-officers would not propose projects knowing at the outset that it does not uphold the “must-achieve” forest plan standards.</p> <p>Congress knew things are not static over time so they codified a process to amend the forest plan when certain conditions exist. They wanted USFS decision-makers to amend the plan to adjust management to respond to changed conditions such that future projects would not harm the natural resources.</p> <p>The forest plans told the public how their forest would be administered and the types of actions that would occur and not occur. Congress assumed that USFS Responsible Officials would be honest with the public when explaining why an amendment is needed. This includes project-specific, non-significant amendments.</p> <p>Supervisor Hayes, does the opening paragraph of your forest plan tell the public all proposed projects will comply with forest plan standards unless the Responsible Official must violate a standard to “get-out-the-cut?”</p> <p>This is clearly the case here.</p> <p>Congress passed the NFMA which required the USFS to prepare forest plans with the assumption that USFS line-officers would comply with the standards in the plan.</p> <p>Congress didn’t anticipate there would be USFS decision-makers like you obsessed by volume accumulation who would backhand the public for personal reasons. Indeed, it’s still possible to get some volume without a forest plan amendment.</p> <p>Comment: Supervisor Hayes, the Forest Plan is a contract with the public. NFMA contains a process to amend the forest plan for individual projects to maintain ecological integrity of the area if conditions had changed since the forest plan went into effect..</p>	<p>would aid in protecting resources by implementing BMPs (Hydrology Report, Appendix 1, pages 19-24)and project-specific IDFs (EA pages 28-29).</p>
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		<p>Amending the Forest Plan to allow resource damage to occur in order to make it possible for you to implement a commodity output project with no ecological benefits is <u>unacceptable</u> to the vast majority of Americans. I suggest you read NFMA from beginning to end.</p> <p><u>Comment:</u> We both know USFS decision-makers (and their supervisors) abhor bad press. We both know the Lassen National Forest is owned by 322 million Americans. We both know only a handful of these Americans take the time to read USFS NEPA documents, thus you believe you can cause harm to watershed with impunity.</p> <p>Therefore, if your site-specific forest plan amendment proposal appears in the final EA it will be necessary to tell the public in your area the truth behind your actions.</p> <p>My letter to the editor will suggest that the public contact you Supervisor Hayes and ask why you believe volume accumulation is a higher priority to you than protecting and conserving the natural resources in the forest. watersheds is so important to the recreating public.</p> <p>Indeed, it sells newspapers when they publish articles about corrupt Federal agency employees who use taxpayer dollars to prepare projects that provide opportunities for corporations to reap profit at the expense of the public</p> <p>The court of public opinion is often more effective than a court of law. Honor your contract with the public. Your reputation in the community will not be tarnished.</p> <p><u>Request for changes to be made to the final NEPA document:</u> Abide by your current forest plan and forget ant forest plan Amendments.</p>	
3-22	Comment	<p><u>Issue #21</u>---Best Science Clearly Indicates Post-Fire Logging causes Significant, Long-Term Harm to the Natural Resources in the Forest. Providing Short-Term Financial Benefits to the Resource Extraction Corporations is not a Reason to Cause such Environmental Plunder.</p> <p>No human development action in the forest inflicts more long-term ecosystem damage than a post-fire timber sale.</p> <p><u>Attachment #2</u> includes statements of more than 400 Ph.D. scientists who are experts in their fields. There statements describe how scores of natural resources in the forest</p>	<p>In the Decision Document for this project, the Responsible Official will document how the best available scientific information was used to inform the assessments and decisions made for this project.</p> <p>The Forest Service has reviewed and considered the opposing science viewpoints provided through the public involvement on this project. All documents referenced in this attachment, unless otherwise noted, are contained in the Project File.</p>

	<p>that are damaged and/or destroyed by post-fire logging. As the scientists point out, some of this damage is long-term and so severe the resources will cease to function properly and the landscape will only restore itself after many decades if humans leave it alone. Human actions following any post-fire timber sale will only slow down the natural restoration process.</p> <p>The USFS's cozy relationship with timber corporations is now big news. The article at the link below explaining the Stanislaus National Forest's plans to clearcut 72 square miles of forest burned by the Rim fire in adjacent to Yosemite National Park was published by <i>National Geographic</i> in July of 2014. The Forest Service, having learned from court losses and bad press that the public dislikes salvage logging illegally shortened the comment period on the EIS from 45-days to 30-days to reduce the number of critical comments they would receive. Numerous lawsuits have been filed.</p> <p>http://news.nationalgeographic.com/news/2014/07/140714-rim-fire-salvage-logging-forest-ecology-wildfire-restoration/</p> <p>A post-fire timber sale takes from the land and gives nothing back. A fire is Nature's way of restoring forests. Please have the courage to read independent science authored by a scientist with no reason to promote logging. Here's an excerpt from the document:</p> <p style="padding-left: 40px;">"A new publication titled Post Fire logging reduces surface woody fuels up to four decades following wildfire was published in Forest Ecology and Management this week. You can find the article here: http://www.sciencedirect.com/science/article/pii/S0378112714006823</p> <p style="padding-left: 40px;">The research will undoubtedly be used by pro logging advocates to justify more post fire logging under the guise that it will prevent or reduce future severe fires—which is the conclusion of the study for a specific short period of perhaps 10-20 years."</p> <p style="padding-left: 40px;">"The study of course is only about fuels. But fuels are not the only thing to consider. We know the second highest biodiversity is found in severe wildfires. Eliminating or reducing the opportunities for future fires is not good for the forest ecosystem. There are many species that live in fear of green forests. They are recovering from forest fire protection and green forests. They need the post fire environment."</p>	<p>References cited in all resource reports were used specifically for the Eiler Project analysis. An agency must have discretion to rely on the reasonable opinions of its own qualified experts (see <i>Earth Island Institute v. United States Forest Service</i>, Order September 26, 2011).</p> <p>The importance of snags on the landscape played a role in project development. Approximately 25% of each ground salvage unit and fuels treatment unit will be left untreated in leave islands. In helicopter salvage units, approximately 100 square feet of basal area will be left in snags (EA page 19). In addition, approximately 35% of the project area will not be treated and be allowed to naturally recover. The importance of snags to various species is discussed in the Wildlife BE. .</p> <p>See responses to Opposing Views 5, 8, 14, and 15 in Appendix A of this document.</p>
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		<p>“In short be prepared to hear logging advocates suggest that post fire logging will benefit the forest ecosystem. In reality logging degrades forests. Unfortunately this paper may provide support for the continued impoverishment of our forested ecosystems.”</p> <p>Source: “Post Fire Logging—a bad deal for forest ecosystems”</p> <p>published in the <i>Wildlife News</i>, March 19, 2015</p> <p>http://www.thewildlifeneeds.com/2015/03/19/post-fire-logging-a-bad-deal-for-forest-ecosystems/</p> <p>Most line-officers who propose post-fire timber sales claim the need to “capture the volume before it deteriorates” or “recover the economic value of burned timber before the commercial value of the wood is lost to deterioration.” The wording for the witless justification for the Eiler sale is a little different:</p> <p>“Capture the limited, remaining forest product economic value”</p> <p>There is no shortage of softwood in America. Indeed, it’s currently being exported by companies that own private industrial tree farms. A competent, caring USFS Ranger wouldn’t think of stopping the natural restoration process for corporate profit.</p> <p>Dead and dying trees in the wake of a fire are supposed to deteriorate and rot (emphasis added)! That’s what creates the unique post-fire wildlife habitat. Any human manipulation of this landscape minimizes and sometimes destroys the ecological benefits that Nature provides with a fire.</p> <p><u>Comment:</u> There are no ecological benefits from removing dead and dying trees from a post-fire landscape ... only ecological destruction.</p> <p><u>Comment:</u> Please honestly examine the tradeoffs between providing opportunities for resource extraction corporations to profit financially vs. the long-term ecological damage that post-fire logging will inflict. Spending your yearly timber funding and pleasing your supervisor by meeting their volume expectations must never justify post-fire logging.</p> <p>Indeed, the Federal Courts agree that the Responsible Official must disclose and</p>	
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consider "adverse impacts" when making the final decision that the IDT has failed to do here.

Earth Island Institute and Center for Biological Diversity v. Dale Bosworth Chief of the US Forest Service and John Berry Supervisor of the Eldorado National Forest, Ninth Circuit Court of Appeals, Filed March 24, 2006

<http://ftp.resource.org/courts.gov/c/F3/442/442.F3d.1147.05-16776.html>

"Conclusion

We have noticed a disturbing trend in the USFS's recent timber-harvesting and timber-sale activities. *See, e.g., Ecology Ctr., Inc. v. Austin*, 430 F.3d 1057 (9th Cir. 2005) (holding that the USFS's post-fire treatment of old-growth forest stands in the Lolo National Forest violated both the NFMA and NEPA, and that the EIS failed to explain adequately the adverse impacts of the proposed plan on the black-backed woodpecker); *Lands Council v. Powell*, 395 F.3d 1019 (9th Cir. 2005) (reversing the district court's grant of summary judgment to the USFS because its EIS did not take a "hard look" at past timber harvests or current trout habitat conditions); *Idaho Sporting Cong. v. Rittenhouse*, 305 F.3d 957 (9th Cir. 2002) (remanding to the district court to enjoin two timber sales approved in violation of the NFMA and NEPA). *See also Utah Envtl. Cong. v. Bosworth*, 421 F.3d 1105 (10th Cir. 2005) (holding that the USFS did not properly monitor MIS species and did not consider a reasonable range of alternatives in a proposed timber-harvesting project); *Sierra Club v. Eubanks*, 335 F. Supp. 2d 1070 (E.D. Cal. 2004) (granting a preliminary injunction against salvage logging provided for in the USFS's post-fire Red Star Restoration Project); *Sierra Club v. Bosworth*, 199 F. Supp. 2d 971 (N.D. Cal. 2002) (rejecting the USFS's argument that post-fire salvage burning was needed to prevent a future fire and enjoining implementation of post-fire salvage logging); *Colo. Wild v. U.S. Forest Serv.*, 299 F. Supp.2d 1184 (D. Colo. 2004) (granting a preliminary injunction of a timber salvage project because the USFS failed to gather population data for MIS species); *Forest Guardians v. U.S. Forest Serv.*, 180 F. Supp. 2d 1273 (D. N.M. 2001) (reversing authorization of a timber sale in the Cibola National Forest because of the USFS's failure to collect adequate MIS population data)."

		<p>Please protect and preserve my national forest land by seeking your volume elsewhere.</p> <p>Please see Attachments #8, #5, #14 and #15. Dead and dying trees have more value if left in the forest to function as Nature intended than removing them to provide corporate profit.</p> <p><u>Request for changes to be made to the final NEPA document:</u> Select the "No Action" alternative for the proposed Eiler post-fire salvage sale. As the <u>Opposing Views Attachments</u> clearly indicate, best science overwhelmingly supports leaving these dead and dying trees on-site benefits the healthy recovery of the burned landscape.</p> <p>The USFS tells their projects are based on best science.</p>	
3-23	Comment	<p>The children born 50 years from today will not appreciate the ecological plunder caused by this timber sale.</p> <p>Most Americans want future generations of kids to have the opportunity to experience the quietness and solitude in a real, undeveloped forest. This will become more important in 2050 when the predicted population of the United States will be 438 million people. The wild UNDEVELOPED national forests will provide one of the only escapes from the insanity of a world driven even more by money than it is now.</p> <p>The Eiler sale is taking away more undeveloped national forest acres from the legacy the unborn kids of the future deserve.</p> <p>Which is most important: the future kids of America or another summer home for a CEO?</p> <p>Most people won't stand for being deceived by people who accept their tax dollars while simultaneously backhanding them for corporate benefit.</p> <p>Is spending all of your NFTM dollars and meeting volume expectations this FY really that important?</p>	Comment noted.
3-24	Comment	<p>Supervisor Hayes, the press will become acquainted with the damage you</p>	Comment noted.

		<p>propose to inflict to the Lassen National Forest that are described in these comments. Articles describing how the USFS proposes to maim and ravage this public land will sell newspapers.</p> <p>Supervisor Hayes, when I send hardcopies (and emails) of these comments to the following newspapers Susanville <i>Lassen County Times</i>, Redding <i>Searchlight</i>, Chico <i>Enterprise-Record</i> and Paradise <i>Post</i>, you can be sure they will publish a feature article detailing how you plan to trash the natural resources (and recreation opportunities) in the Eiler timber sale area to provide opportunities for short-term profit for natural resource extraction corporations.</p> <p>Of course the primary reason you are proposing this sale is personal. You know you must not have a penny of unspent NFTM money at the end of the fiscal year to assure next year's budget won't be reduced, and you know you must display your capability to remove volume (a.k.a. "get out the cut") to maintain your promotion potential in an agency with a timber agenda and culture</p> <p>Read your Purpose & Need again. You know you have described goals that will inflict long-term harm to the natural biodiversity of the area. When logging reduces forest biodiversity it <u>might</u> be restored only after centuries without human manipulation.</p> <p>This will generate questions from reporters. Prepare yourself.</p>	
3-25	Comment	<p>By now you may have read the information contained in the <u>Opposing View Attachments</u>. Reasonable people would have doubts about the wisdom of their proposal that is likely to create major adverse impacts as described by hundreds of Ph.D. scientists to whatever they are charged with protecting.</p> <p>Responsible people that contemplate any action intuitively engage the Precautionary Principle. Perhaps you have never heard of it. Here it is in a nutshell:</p> <p><i>The precautionary principle or precautionary approach states that if an action or policy has a suspected risk of causing harm to the <u>public</u> or to the <u>environment</u>, in the absence of <u>scientific consensus</u> that the action or policy is not harmful, the <u>burden of proof</u> that it is not harmful falls on those taking an action.</i></p>	See responses to Opposing Views 10 in Appendix A of this document.

		<p>See: http://en.wikipedia.org/wiki/Precautionary_principle</p> <p>Supervisor Hayes, when Mr. Rickman, Mr. Peters, Ms. Taylor, Ms. Blaschak, Mr. Gudino, Ms. Sanger, and Ms. Bovee disagree with several hundred scientists does this constitute "scientific consensus?" How will you explain this to the reporters?</p> <p>Please don't take inappropriate action that harms the recreating public just because the USFS says you can.</p>	
3-26	Comment	<p>Supervisor Hayes, as you and your IDT will find out, the <u>Opposing Views Attachments</u> contain the wisdom of several hundreds Ph.D. scientists who all agree that logging and roading the forest will inflict major adverse ecological impacts. They show how the passing of time without human manipulation is the <u>only</u> way to bring these logged areas back to health I spite of the fact you tell (lie to?) the public telling them this timber sale will create a healthy forest and "restore" the natural resources in the area.</p> <p>A sample of the opposing views from the attachments is included below. Please meet with your IDT and discuss each science statement. Let them know the meeting will be open and honest and they should not be afraid to express their feelings. I'm sure some members of the IDT are familiar with the work these scientists have produced: E.O. Wilson, Chris Maser, Jerry Franklin ... and Aldo Leopold.</p> <p>Each of your IDT members will be receiving a copy of these comments. If you fail to approach them and offer the meeting they will know you were afraid to discuss the values of the majority of Americans so well articulated by these scientists.</p> <p>1) "Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course will bring about." Union of Concerned Scientists</p> <p>2) "The primary goal of resource management (sustained yield) evolved from the utilitarian values of the Progressive Era. Intuitively, sustained yield is a logical and laudable goal: no more is taken than can be replenished. As it has come to be implemented, however, the concept of sustained yield has been modified to mean taking</p>	See responses to Opposing Views in Appendix A of this document.

		<p>the maximum supply a system can withstand (i.e., the furthest point to which production can be pushed without impairment of the resource's ability to reproduce). One of our colleagues calls this 'management at the edge of harm'."</p> <p style="text-align: right;">Hanna Cortner and Margaret A. Moote in <i>The Politics of Ecosystem Management</i></p> <p>3) "Nature designed forests to live 100 to 5000 years. We are designing a forest to live between 60 and 120 years. Nature continually regenerates diverse forests of single and multiple tree species (usually between one and 10 tree species) including plants, animals, micro-organisms and fungi. We design forests of single and multiple tree species (often planting two or more tree species on the same site) leaving regeneration of other components of the ecosystem to nature. Nature designed some forests to be connected, and others to be disconnected, "in space and time over vast landscapes." We are designing fragmented forests disconnected in space and time on clearcut patches. Nature designed a forest to be self-sustaining, self-repairing. We are designing a forest to require external expenditures and subsidies, watershed restoration, brushing, spacing and fertilizers."</p> <p style="text-align: right;">Anthony Britneff, RPFForum, Oct 97</p> <p>4) "The one process now going on that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendants are least likely to forgive us."</p> <p style="text-align: right;">E.O. Wilson</p> <p>5) "Evidence points to a common cause behind past failures of investments in sustainable development. Historically, the management of forest, rangelands, fisheries, and wildlife resources was dominated by theories of carrying capacity and goals of sustainable yield. Human behavior was ignored. The application of these theories led to the expectation that target variables such as employment could be stabilized and created a demand for a constant flow of product. These policies were successful initially, and profit and employment were, in fact, stabilized. But their very success resulted in slow changes in key ecological, social, and cultural components not captured in the management models: changes that typically led to the collapse of the entire system. The "economic extinction" of cod along the coast of eastern North America is a prime example. From a review of a wide range of failed sustainable development initiatives, a common pathology emerges. At the extreme, the ecological system loses resilience, the industries become dependent and inflexible, the management agencies</p>	
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		<p>become rigid and myopic, and the public loses trust in governance." C.S. Holling, Dec 2000</p> <p>6) "The instrument, the knife, that carved out the new, rudimentary forest was the razor-sharp interest in the production of a single commodity. Everything that interfered with the efficient production of the key commodity was implacably eliminated. Everything that seemed unrelated to efficient production was ignored. Having come to see the forest as a commodity, scientific forestry set about refashioning it as a commodity machine. Utilitarian simplification in the forest was an effective way of maximizing wood production in the short and intermediate term. Ultimately, however, its emphasis on yield and paper profits, its relatively short time horizon, and, above all, the vast array of consequences it had resolutely bracketed came back to haunt it." James C. Scott in <i>Seeing Like a State</i></p> <p>7) "Ecological forestry that maintains an effective coarse filter differs markedly from the 'engineering' approach common under sustained-yield timber management. Under that model, foresters try to define precise objectives for specific ecosystem components (e.g., trees, water, habitat for a particular endangered species) and use sophisticated quantitative methods to determine optimal management strategies. Though it can be considered appropriate for certain narrowly defined problems, we believe that there is a certain arrogance to such an approach to managing forests for biodiversity. It assumes a near- perfect understanding of the ecosystems under management." Robert Seymour and M.L. Hunter in their book <i>Maintaining Biodiversity in Forest Ecosystems</i></p> <p>8) "Two broad schools of thought exist regarding landscape planning. In one, future landscape patterns are described in specific desired products (e.g., wood fiber, habitat) and known ecosystem processes. The theme can be summarized as 'we know what we want and we know how to get it'.</p> <p>In the other approach, future patterns are based upon historic patterns to the degree feasible. This point of view reflects the fact that we cannot even name all the species in the landscape, much less rationally plan for their habitat needs and ecosystem functions. A premise of this approach is that native species have adapted to the disturbance events and resulting range of habitat patterns of the past thousands of years. The probability of their survival is reduced if their environment deviates substantially from the range of historic conditions." Cissel, Swanson, McKee and Burditt <i>Journal of Forestry</i></p>	
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		<p>9) "Current standards represent the protection of environmental and cultural values as constraints on managing the timber resource. Current standards do not effectively integrate ecosystem and cultural values. Nor do they adequately address requirements for ecosystem sustainability, harmonious stewardship of all resources, and the needs of future generations. Historical approaches to forest management have focused largely on products rather than on the biological systems from which these products derive. In Clayoquot Sound, as elsewhere in British Columbia, sustaining timber production has historically taken precedence over maintaining forest ecosystems. The Panel believes that forests should be managed as ecosystems, rather than as potential products, and that forest practices should not put at risk the long-term health of forest ecosystems. 'Sustainable ecosystem management' is characterized by resource management practices that are scientifically based, ecologically sound, and socially responsible. The Scientific Panel's recommendations are among the first efforts taken to shift forestry from its historical focus on sustaining output levels for specific forest products, to a focus on sustaining forest ecosystems."</p> <p style="text-align: right;">Clayoquot Sound Scientific Panel</p> <p>10) "If we choose to continue our current patterns of use, we face almost certain declines in the ability of ecosystems to yield their broad spectrum of benefits ... from clean water to stable climate, fuelwood to food crops, timber to wildlife habitat. We can choose another option, however. It requires reorienting how we see ecosystems, so that we learn to view their sustainability as essential to our own. Adopting this "ecosystem approach" means we evaluate our decisions on land and resource use in terms of how they affect the capacity of ecosystems to sustain life, not only human well-being but also the health and productive potential of plants, animals, and natural systems. Maintaining this capacity becomes our passkey to human and national development, our hope to end poverty, our safeguard for biodiversity, our passage to a sustainable future." <p style="text-align: right;"><i>in People and Ecosystems: The Fraying Web of Life</i> by the World Resources Institute</p> <p>11) "Nature designed a forest as an experiment in unpredictability. We are trying to design a regulated forest. Nature designed a forest of long-term trends. We are trying to design a forest of short-term absolutes. Nature designed a forest with diversity. We are designing a forest with simplistic uniformity. Nature designed a forest with interrelated processes. We are trying to design a forest based on isolated products." <p style="text-align: right;">Chris Maser in <i>The Redesigned Forest</i></p> </p></p>	
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		<p>the maximum supply a system can withstand (i.e., the furthest point to which production can be pushed without impairment of the resource's ability to reproduce). One of our colleagues calls this 'management at the edge of harm'."</p> <p style="text-align: right;">Hanna Cortner and Margaret A. Moote in <i>The Politics Of Ecosystem Management</i></p> <p>15) "If 20th century forestry was about simplifying systems, producing wood, and managing at the stand level, 21st century forestry will be defined by understanding and managing complexity, providing a wide range of ecological goods and services, and managing across broad landscapes...managing for wholeness rather than for the efficiency of individual components."</p> <p style="text-align: right;">Kohm and Franklin in <i>Creating A Forestry For the 21th Century</i></p> <p>16) "Sustainable forestry will not result from lengthening rotations on tree farms and preserving a few small areas for display of other forest qualities.</p> <p>The evolution to sustainable forestry requires, at a minimum, a recognition of the limitations of present knowledge and of the risk that human intervention will do irreversible harm before enough knowledge accumulates to identify the practices of sustainable forestry. This recognition leads to a double strategy:</p> <ol style="list-style-type: none"> 1) intensify research on how forest systems work and 2) preserve options for the future. <p>Preserving options implies stopping policies that are doing harm by destroying watersheds, biological diversity, scenic beauty and other forest values. It means developing new forest management techniques that give far less weight to the present and more to the future and less weight to wood production and more to other values."</p> <p style="text-align: right;">Alice Rivlin in <i>Defining Sustainable Forestry</i></p> <p>17) "The concept of conservation ecology is often limited to a protectionist agenda: buy, fence, and lock up as much as possible of the natural world. But fences rot and locks rust. Arbitrary lines drawn on a map have always faded in time; just ask a Cherokee. The critical challenge for science, and our species, demands that we abolish intellectual barriers, crush limited paradigms, and take the broadest possible view of the problem."</p> <p style="text-align: right;">O'Neill, Kahn, and Russell</p>	
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		<p>18) "In a sense, the need for integration is also the lesson of the old paradigm's failure. The paradigm failed because it oversimplified a complex reality. It is still not clearly understood that the oversimplification took two forms. First, the sustained yield paradigm failed to understand the complexity of forest ecosystems, systematically downgrading the mounting evidence of soil erosion, biodiversity loss, and disappearing habitat as so many anomalies to be handled by doing better in future. Second, it failed to come to terms with the fact that sustainability is as much a social as an ecological problem. Sustained yield forestry is only a problem to the extent that it fails to provide us with what we want from our forests. It continues to be defended precisely because it is providing some people with exactly what they want." Jeremy Rayner, Implementing Sustainability in West Coast Forests in the <i>Journal of Canadian Studies</i></p> <p>19) "EM (ecosystem management) technology will probably emerge as more important to people than either the technology of the communications revolution or biotechnology, because of its potential usefulness in guaranteeing a livable environment." John Gordon, Yale University</p> <p>20) "Decisions made when the sustained yield paradigm was established after the Second World War set British Columbia on a path that has been and will continue to be extremely costly and disruptive to reverse." Cashore et al., Change and Stability in BC Forest Policy from <i>In Search of Sustainability</i></p> <p>21) "To illustrate how inadequate existing knowledge has been, consider the important discoveries of the last 25 years with regard to:</p> <ol style="list-style-type: none"> 1) the extraordinary dynamics of the below-ground subsystem and its high energy requirements; 2) the importance of the dead tree and its derivatives in the long-term functioning and habitat diversity of forests, streams, and rivers; 3) the scale and complexity of edge influences that can be created through forest harvest practices; and 4) the importance of biological legacies, living and dead, in ecosystem recovery following catastrophic disturbances, and the poor match in conditions 	
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		<p>and processes between most natural disturbances and clearcutting.</p> <p>This is just a small sample of recent scientific insights into forest ecosystems. In fundamental ways, each of these findings alters our view of these forests and how they work. We simply did not understand some very basic aspects of forest structure and function. Consequently, traditional forestry approaches, based on a very simple view of a forest, have proven very inadequate. Resource managers thought that they could grossly simplify forests without consequence. They have done so on a grand scale, and often react energetically against adoption of alternative models of how forest ecosystems work.</p> <p>There is no question that recognizing the potential ecological value of a dead tree makes life much more difficult (or, put another way, more interesting) for the silviculturalist. Perhaps as important, it challenges the basic value set for foresters, many of whom share a strongly utilitarian view of the forest."</p> <p style="text-align: right;">Jerry Franklin in <i>Conservation Ecology</i></p> <p>22) "Sustained yield is not the same thing as sustainability. You could produce a sustained yield of timber (for several rotations anyway) without practicing sustainable forestry. Managing for a consistent and sustained supply of one commodity does not ensure that all other commodities and values will be maintained. Nor is the concept of sustained yield particularly appropriate for forests as ecosystems. Even if one includes all known non-timber forest products and all aspects of 'wildcrafting', most components of forest biodiversity are not harvestable resources. Nevertheless, natural resources have continued to be managed (or mismanaged) under the rubric of sustained yield in one form or another, and the histories of forestry, fisheries, and wildlife management show similar patterns [of resource depletion]."</p> <p style="text-align: right;">Pojar et al. in <i>Silvicultural Options on the Central Coast</i> draft BC MoF, 1999</p> <p>23) "When systems are pushed outside the bounds of natural variability, there is a substantial risk that biological diversity and ecological function will be jeopardized and therefore, ecological systems will not be naturally maintained."</p> <p style="text-align: right;">Ayn Shlisky <i>Journal of Forestry</i></p> <p>24) "Forestry has been largely concerned with silviculture, defined as "that branch of forestry which deals with the establishment, development, care, and reproduction of stands of timber" (Toumey 1947). The aim of silviculture, according to Toumey, is the</p>	
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		<p>"continuous production of wood". But forests comprise much more than wood and other products for human consumption, much more even than the "public service" functions of climate regulation, water supply, pest control, gene banks, or recreational opportunities. What future generations can afford to lose is not the only consideration. Forests are valuable and must be sustained for their own sake. Until we acquire such an attitude, the sustainability concept may just be a smoke screen, behind which we continue to chip away at our biotic heritage."</p> <p style="text-align: right;">Reed Noss in <i>Defining Sustainable Forestry</i></p> <p>25) "The agricultural paradigm of forestry adopted in this century (simplification and uniformity in structure, pattern, and product) and the regulated landscape (fully occupied by an ordered age sequence of managed stands) no longer suffices. The simplistic notion that four regeneration harvest practices, designed with the knowledge and objectives of the 19th century, can meet the objectives of the 21st century must be given up."</p> <p style="text-align: right;">Kohm and Franklin in <i>Creating a Forestry for the 21st Century</i></p> <p>26) "Sustained yield and sustainable development are unquestionably in conflict. Attitudes, policies, and management strategies that evolved to serve the sustained yield ideal are, in many respects, outmoded. Sustainable development demands that timber primacy be replaced by a concern for a forests' contribution to human welfare in the broadest sense.</p> <p>The emphasis must shift from maintaining timber supplies over the long run to maintaining a multitude of resource values that are dependent upon site productivity, ecosystem, ecosystem health, integrity, and diversity."</p> <p style="text-align: right;">David Haley and Martin Luckert in <i>Managing Natural Resources in BC</i></p> <p>27) "Sustaining the yield of a single resource is based on the concept of equilibrium. That is, balance between growth and harvest can be sustained in perpetuity. However the sustained yield idea simply does not fit contemporary circumstances. A different paradigm of forest management is required in a society:</p> <ul style="list-style-type: none"> • where change is ubiquitous, • where change is rapid and encouraged, • where a scarcity of wood products has failed to materialize, and • where the forest is appreciated for an array of commodity and amenity values." <p style="text-align: right;">R.W. Behan <i>Journal of Forestry</i></p>	
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		<p>28) "On a net basis, the forest-planning adventure has been disastrous. Achievements have been grossly outweighed by the environmental, social, managerial, and political damages and costs. Indicting the Forest Service for this travesty of professional management and public administration is indeed inescapable ... but it is also insufficient.</p> <p>Also at fault is the obsolete paradigm of professional forestry based on producing a maximum sustained yield of timber. Maximum sustained yield of timber might well be called the forestry of the 20th century - and it differs little from the 19th or 18th."</p> <p style="text-align: right;">R.W. Behan in <i>Creating A Forestry For The 21st Century</i></p> <p>29) "The major change in forestry thinking wrought by Ecosystem Management has been the abandonment of the concept of a stable flow of wood from the land as a universally dominant management objective. As an environmental paradigm replaces utilitarian, conservation, and preservation paradigms in land managers' and the public's view of the landscape, the management of whole systems for a variety of purposes rather than commodity flows or single resources (including "wilderness") will become increasingly overt and explicit. Ecosystem Management will differ from multiple-use management in focusing on inputs, interactions, and processes, as well as uses and outputs."</p> <p style="text-align: right;">John C. Gordon, Yale University</p> <p>30) "A student of forestry in the 1950's or 1960's would have found information on converting old-growth stands into even-aged regulated forests, preventing and suppressing fire, creating habitat for game species, or calculating optimum rotations. Little mention was made of institutional or social issues. The forester of the 20th century could go to his post in the woods, plan for a sustained flow of timber, mitigate the negative effects of harvesting, provide for other values where possible, and feel secure in the knowledge that he had carried out his professional duties.</p> <p>Of course, the 21st century will not be such a time."</p> <p style="text-align: right;">Katherine Kohm and Jerry Franklin in <i>Creating a Forestry for the 21st Century</i></p> <p>31) "The growing demand for forest products led the government to quickly take measures to manipulate the forest cover to obtain more wood or to justify larger harvests. To attain increased productivity, forest policy tried to change to make industry more responsible in exploiting the forest in a manner that redistributes the stock of trees on its areas. Under the mechanical interpretation, harvesting the forest is to be</p>	
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		<p>structured in such a way that after a transition period, average annual growth is maximized. This is what is meant by 'normalizing the forest.' The policy has two objectives. One is always to try and support industry. The second, however, is to ensure that the commercial forest has the maximum quantity of available wood for harvesting. The forest becomes a variable factor of production. The 'normal' forest, where each age class of tree occupies the same space over time, is the desired goal because it represents a condition of social stability and maximizes all the functions of the forest.</p> <p>This model of a normal forest raises a number of questions. The idea that an even flow of wood could stabilize human communities betrays, once more, a lack of understanding of economics. Normalization does not take into account the profit motive of mills, where the wood is transformed, although the pursuit of profit is a basic rule of business. We find rhetorical and mysterious the assertion that the normal forest would eventually lead to a situation in which all the functions of the ecosystem are optimized. It does have the trappings of an ecosystem approach. Nevertheless, in our view, the objective of the normal forest, or the normalization of the forest, is merely an elegant way to justify an increase in allowable cuts without increasing the responsibilities of industry."</p> <p style="text-align: center;">Luc Boutillier in Howlett, ed <i>CANADIAN FOREST POLICY</i></p> <p>32) "Principle 1: Sustain healthy, diverse, and productive ecosystems in the long term. A key lesson of the 1980's was that a national forest or grassland is much greater than the sum of its multiple uses. People demanded that management goals and objectives go beyond the yields of board feet of timber, user days of recreation, animal-unit-months of grazing, and other "multiple use outputs" projected in the endless tables and graphs within forest plans. For too long, federal land use managers had been treating natural resources "as discreet entities, focusing on their economic value and paying little attention to underlying natural systems and processes"(Keiter 1990).</p> <p>This first principle suggests an important corollary for multiple-use management: the key to sustaining all benefits is in managing for ecosystem health. Earlier, it was assumed that land would be taken care of as long as management succeeded in sustaining yields of the various multiple uses. It is now recognized that ecosystem health must be a conscious and deliberate goal as well as the over all context for multiple use management."</p> <p style="text-align: center;">Winnifred Kessler and Hal Salwasser in <i>A New Century for Natural Resources Management</i></p>	
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		<p>flow that they can not deliver, and public expectations are raised about the long-term capability of the land and likely resource flows. At the extreme, forests managed this way become subject to catastrophic surprises when unusual, but natural, events occur (e.g., greatly increased flooding and landslides during heavy rains). Communities that grow dependent on artificially high or constant commodity flows can eventually suffer the same catastrophic surprises ... losing all semblance of sustainability."</p> <p style="text-align: center;">Committee of Scientists Third Draft Preliminary Report, July 98</p> <p>35) "From the inception of American forestry in the late nineteenth century, foresters saw old growth as an obstacle in the way of the ultimate goal of forestry: to achieve a fully regulated forest producing desired goods and services efficiently and without waste. Foresters hoped to convert old growth as quickly as possible to thrifty, young, growing forests. This remarkably enduring perspective remained largely unchallenged within the forestry profession until the 1980's, even though for decades many non-timber-oriented resource management professionals defended the positive values of old growth. Greatly outnumbered in the forestry schools, the timber industry and government agencies, these dissenters remained on the margins of policy debates until the 1980's."</p> <p style="text-align: right;">Paul Hirt <i>in Institutional Failure in the U.S. Forest Service</i></p> <p>36) "There are currently many plans for sustainable use or sustainable development that are founded upon scientific information and consensus. Such ideas reflect ignorance of the history of resource exploitation and misunderstanding of the possibility of achieving scientific consensus concerning resources and the environment. Although there is considerable variation in detail, there is remarkable consistency in the history of resource exploitation: resources are inevitably overexploited, often to the point of collapse or extinction."</p> <p style="text-align: right;">Carl Walters, Donald Ludwig, and Ray Hilbor</p> <p>37) "A good example of a policy that might be portrayed as precautionary, but is not and should be reformed, is the traditional approach of taking the maximum sustainable yield (MSY) from a fishery.</p> <p>The MSY approach to managing fisheries involves creating a bell-shaped curve to determine the total advisable catch of a targeted stock. In theory, as long as the catch remains on the ascending side of the curve, increased fishing will yield a larger sustainable take. But once the catch moves to the downside of the curve, more fishing will mean less catch because of undue thinning of the population's ability to replenish</p>	
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		<p>itself. Managers thus strive to remain at the peak of the curve, known as the MSY plateau.</p> <p>Yet it has been shown time and again that MSY is very difficult to predict and that damage is done by overfishing. Commercial fish populations fluctuate considerably, and often unpredictably, because of ever-changing ocean conditions. Meanwhile, industry attempts to stay at the peak of a historically determined MSY curve have led to dramatic collapses. Rather than give due regard to conservation for the long term, MSY management practices seek to maximize short-term exploitation of the sea."</p> <p style="text-align: right;">Wilder, Tegner and Dayton</p> <p>38) "Those advancing anthropocentric (or softer, less biocentric) definitions (of ecosystem management) are criticized for offering a naïve, 'we can have our cake and eat it too' position that dilutes ecosystem management into something closely resembling discredited concepts such as multiple use and integrated resource management. It is easy, critics say, to 'cheery pick' a few elements from the list of ecosystem management goals and principles. Full and genuine adoption of this list, however, would require and/or entail a comprehensive package of changes, a 'seismic shift' in mindset that would overturn assumptions and practices based upon utilitarianism and the 'commodity forest' and replace them with ones based on a Leopoldian land ethic and the 'environmental forest'. Out would go the tacit assumptions underlying traditional resource management practices including earth as a resource for humans, competition over cooperation, control in place of adaptation, viewing all problems as soluble, and viewing nature as stable or balanced. In would come contextual thinking, management premised on complex conceptions of ecological and organizational systems, and new approaches 'based upon the science of surprise, complexity and non-linearity."</p> <p style="text-align: right;">Jeremy Wilson in Howlett, ed <i>CANADIAN FOREST POLICY</i></p> <p>39) "In my own field, forestry, group A is quite content to grow trees like cabbages, with cellulose as the basic forest commodity. It feels no inhibition against violence ... its ideology is agronomic. Group B, on the other hand, sees forestry as fundamentally different from agronomy because it employs natural species, and manages a natural environment rather than creating an artificial one. Group B prefers natural reproduction on principle. It worries on biotic as well as economic grounds about the loss of species like chestnut, and the threatened loss of the white pines. It worries about a whole series of secondary forest functions: wildlife, recreation, watersheds, wilderness areas. To my mind, Group B feels the stirrings of an ecological conscience."</p> <p style="text-align: right;">Aldo Leopold</p>	
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		<p style="text-align: right;"><i>in A Sand County Almanac</i></p> <p>40) "Preservation of future stewardship options is rarely possible when current rates of resource exploitation are high. Preserving options assumes an acceptable "decision space" will be available to address the environmental problems confronting future human generations. However, many forest and range ecosystems have experienced intensive resource management and utilization by Euro-Americans with adverse effects on their productive potential. The most significant changes in these systems have occurred over the last 200 years.</p> <p>For example, in forested systems most of the old-growth has been converted to younger stands, extensive road systems have been built with outdated technologies based on unsustainable levels of resource use. In rangeland areas, alterations to riparian systems and stream channels has been extensive, a consequence of historical watershed and riparian management practices. In either of these situations, future stewardship options have been reduced or, in some cases, essentially eliminated. While current stewardship activities can potentially reduce (sometimes increase) future options, if these practices significantly and adversely affect other resources or values, then they are also likely to significantly limit future options. If current practices result in species becoming threatened or endangered, water quality standards being exceeded, or public values and trust violated, then dramatic readjustments to current stewardship activities are clearly needed.</p> <p>Preserving options is also a way of explicitly acknowledging our incomplete knowledge of complex ecosystems – that is, our ignorance of how they function and their interactions with natural and human influenced disturbance regimes and our responsibilities to future human generations. This philosophy is perhaps best encapsulated by focusing more on what we leave behind in exploited ecosystems than on what is taken from them."</p> <p style="text-align: right;">Committee of Scientists Third draft Preliminary report, July 98</p> <p>41) "Increasingly, after World War II, the assumptions foresters adopted regarding these myriad considerations shifted first toward the ever-optimistic and finally to the improbable. Those altered assumptions produced a watershed change in forest management an aggressive approach appropriately labeled "intensive management" and advocated in an important document produced by the Forest Service in 1969 titled the <i>Douglas-fir Supply Study</i>. The philosophy of intensive management lent a façade of rationality to a timber program that was, in fact, driven by markets and unsustainable</p>	
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		<p>over the long haul. Intensive management ideology also deflected, to an extent, criticisms of the Forest Service by non-timber resource users. Intensive management promised more of everything: more commercial resource extraction and more recreation, more logging and more wildlife. Intensive management also promised to mitigate any resource damage due to development. Unfortunately, these hopeful visions often failed to pan out for lack of funding or because of irresolvable conflicts between uses or simple environmental limitations. Still, as long as the agency promised more and better management, it could elicit a certain amount of patience from critics and deference from policy-makers. But this would not last indefinitely. The proliferation of timber roads and rapid liquidation of old growth eventually made a mockery of sustained yield and multiple use policies on Northwest national forests, and this, in turn, spelled disaster for the Forest Service's public image."</p> <p style="text-align: right;">Paul Hirt <i>in Institutional Failure in the U.S. Forest Service</i></p> <p>42) "In the past, Registered Professional Foresters emerging from forestry schools across Canada were narrowly trained to maximize fibre production on a given area of land. Safeguarding the health and integrity of ecosystems did not constitute an important dimension of their education or of their work. In the 1990s, significant and long-needed changes are taking place in the forestry curricula in many Canadian schools. However, the new approach is still framed within the sustained yield forest management paradigm, and on prioritizing fibre production over ecosystem health and integrity. Only fundamental reform of the forestry profession can create the New Forester to practice the New Forestry."</p> <p style="text-align: right;">Fred Gale in <i>The Wealth of Forests</i></p> <p>43) "Through government regulation, "sustained-yield" forestry has become the norm for forest management in North America. As the name implies, sustained-yield forest management focuses on the net productivity of surface resources in the forest. Economic considerations are paramount, and to achieve commercially viable levels of timber in perpetuity, sustained-yield forest management requires frequent intrusions into the woods and aggressive reforestation after harvest. This results in more evenly-aged, less diverse tracts of forestland. In essence, sustained-yield forest management is lowest-common-denominator forestry, producing wood of only average quality and engineering a forest ecosystem that lacks the depth and richness of the natural order."</p> <p style="text-align: right;">David Ford Certified Forest Products Council <i>in Wrong Focus of Resource Management</i></p> <p>44) "The government's forest policy proposal was released in June 1985 in a document</p>	
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		<p>entitled <i>To Build a Forest for the Future</i>. The hypothesis underlying the ministry's study was an idea dear to professional foresters in Quebec. They took for granted that maintaining a tree cover sufficient to meet the needs of the wood industry would preserve all of the functions of the forest. This hypothesis brings us back to the classic interpretation of the concept of sustained yield. Focussing on the trees, this concept reduced the function of the forest to wood. This reasoning sacrifices the complexity of the forest to bolster a reductionist and technical approach. The merit of the report, however, was that it simplified the aims of the emerging forest policy and consequently enhanced its short-term chances of success."</p> <p style="text-align: center;">Luc Bouthillier in Howlett, ed <i>CANADIAN FOREST POLICY</i></p> <p>IDT members still have a chance to redeem your selves and express your true values and ethics. Several IDT members can and should take action to stop the Eiler timber sale. You know what to do. When the 44 statements above are combined with the information in <u>Opposing Views Attachments #1</u> there is only 1 conclusion that can be made.</p> <p>They clearly represent best science. Believing that the recommendations of Mr. Stawiarski, Ms. Harrison-Smith, Mr. Nagel, and Mr. Lewis who are financially motivated to produce volume should trump the best science I have presented is folly.</p> <p>USFS policy and United States' law require the USFS to base their projects implementing the forest plan to be based on best science. This timber sale is of course inconsistent with best science and is being proposed to spend all the timber funding received this FY.</p>	
3-27	Comment	<p>Appeal Panel Instructions Reveal the USFS cares more about good Press and Winning Lawsuits than they do about Complying with the Laws of the United States.</p> <p>Supervisor Hayes, I'm not sure if the USFS Regional Offices still invite 3 forest planners every 2 weeks to the RO to serve on al Appeal Panel. In R-1 this was done. I was a member of 7 appeal panels before I retired. Our duties were to review appeals and the NEPA documents that were appealed during the 2 weeks we were in Missoula. Each Panel was given instructions by the Appeal Deciding Officer.</p> <p>Our reviews would culminate in a group consensus recommending whether to uphold</p>	Comment noted.

		<p>the Responsible Official's Decision or not. There was no option for dissenting opinions. The majority ruled.</p> <p>I still remember one particular instruction: if the project was being appealed by an individual without the resources to take subsequent court action the Panel would overlook minor legal violations and "in most cases recommend that the Appeal Deciding Officer uphold the Responsible Official's Decision." If the appeal was filed by an environmental organization with a history of filing suit against the USFS, the Panel would uphold the Responsible Official's Decision only if there were no legal violations that the plaintiff's attorney would emphasize in court.</p> <p>The Appeal Deciding Officer ended his instructions with this statement: "The forest service does not want the public to read about Decisions upheld on appeal that are reversed in court."</p> <p>This also applies to the new Objection process.</p> <p>As you have seen, I have identified legal violations in your pre-decisional EA, but I'm just an individual taking action to assure my great grandchildren's great grandchildren will have the opportunity to enjoy an undeveloped national forest outside designated Wilderness. I don't have the money to hire an attorney.</p> <p>Of course I will not litigate when the final EA is not modified to address my concerns. When I object and request that the Eiler EA be rewritten to remove the legal violations, my objection will be denied.</p> <p>Of course I will not litigate when my request to rewrite the Eiler EA to remove the legal violations is rejected by the Objection Deciding Officer. I simply don't have the \$\$\$ to take on a cadre of OGC attorneys.</p> <p>I remember during the mid to late 1990s there were still a few USFS line-officers who risked their career by placing the welfare of the recreating public first. Please re-read the Eiler EA and ask yourself what most recreationists want when they visit their national forests. I ask you to please assure the final EA reflects these recreation-friendly actions and is consistent with United States law.</p>	
3-28	Comment	Without Exception the Unbiased Science Literature Contained in the Attachments	Comment noted. See responses to Opposing Views in Appendix A of this document.

		<p>Supports my Statements in these Comments</p> <p>Ms. Blevins, Mr. Green, Ms. Perry, Mr. Martinez, Ms. Nelson, Mr. Rickman, Mr. Peters, Ms. Taylor, Ms. Blaschak, Mr. Gudino, Ms. Sanger, and Ms. Bovee, you will not find independent, unbiased scientists who wrote the <u>Opposing Views Attachments</u> who are financially or politically connected to logging. The only literature you will find that encourages logging as a way to “restore” the national forests is written by USDA employees.</p> <p>Now ask yourselves what’s going on. A few IDT members who aren’t afraid to deal with the truth have already concluded that most USFS line-officers have those positions because they have no problem being of a scheme to deceive the American people. They would not have been chosen to fill the vacancy unless their actions are consistent with the USFS scheme.</p> <p>The USFS pays well. You have all been bombarded during your careers with pro-logging information. The inconsistency is obvious. Most employees, regardless of their natural resource values, ethics and love for wildness will not make the ultimate sacrifice and resign. I didn’t either. However, I found very effective ways to “monkey wrench” the system from within.</p> <p>Its not difficult to come up with these ideas. Give them a try. You will find it rewarding.</p> <p>As you can tell I speak from the heart. I think my words reflect the feelings that the majority of Americans would express if given the opportunity.</p>	
3-29	Comment	Supervisor Hayes, I suggest when you write your next NEPA document you include someone on the IDT who is not NEPA clueless. In addition to the scores of other illegal and inadequate sections this EA didn't even contain a Table of Contents.	Comment noted.
Respondent #4: Patricia Puterbaugh, Lassen Forest Preservation Group, letter dated May 12, 2015			
Comment #	Identification	Summary of Comment	Responsible Official’s Disposition
4-1	Comment	Thank you for considering my comments on the proposed Eiler Fire Salvage and Restoration Project Environmental Assessment (EA). As you know, I am a member of the Burney-Hat Creek Basins Collaborative. I have been a member of the collaborative for 5 years, starting in January 2010. The goal of the CFLRP program is to	Comment noted. Please note, from the original scoping notice, 519 acres of helicopter area salvage was dropped and 1,373 acres of ground area salvage was dropped.

		<p>“fund collaborative and science-based ecosystem restoration projects that reduce hazardous fuels, reestablish natural fire regimes, and reduce wildfire management costs. The program also hopes to benefit local rural economies through the use of forest restoration by products”. The Hat Creek Ranger District has been receiving funds from the government to do these restoration projects with input from the collaborative. In the five years I have been coming to meetings and “collaborating”, I have not seen any change in the logging plans after my comments are considered. This would include the Whittington and Reading Projects, both of which LFPG appealed/objected.</p> <p>The Eiler EA has changed somewhat due to environmental or other concerns. We are thankful that 209 acres of helicopter logging was dropped after scoping and there was a reduction in acres being salvaged of approx. 2500 acres. However, the overall effects of the plan, especially with the cumulative effects of the upcoming Whittington Project, will have considerable, potentially irreversible effects on the American marten, Northern Goshawk and California spotted owl habitat in the region.</p>	
4-2	Comment	<p>Northern Goshawk</p> <p>I attended a meeting about Eiler at the Hat Creek Ranger District office 12/1/15. At this meeting we were told the Goshawk PAC was intact and will not be logged. Greg Meyer said of the Cornaz area, “there is a lot of green left”. Now, in the EA/BE we see that both the Burney Mtn and Cornaz Lake GPACs are unsuitable and will be logged. Even so, there is no plan to designate new GPACs and we see the usual determination that the project may affect individuals, but will not lead toward a federal listing. On page 20 of the BE the biologist comes to the conclusion that salvage treatments may cause minor short term reductions in foraging for NGOs, but in combination with tree planting would enhance the reestablishment of forest conditions in the long term.</p> <p>We will also lose 38 acres of the Burney Spring GPAC in this logging project. It seems ludicrous that one could come to the conclusion that the effects will be “short-term” and eventually beneficial when 2 GPACs and part of another are completely gone. On page 19 of the BE it describes how a GPAC is delineated and that GPACs can be defined as “multiple blocks in the largest best available patches within 0.5 miles of one another.” It then goes on to describe the attributes of these stands. Can you not find any habitat that could be suitable where a GPAC could be placed or pieced together within or adjacent to the Eiler Fire project boundary? It seems we are completely giving up on these two GPACs without any kind of replacement? It is also distressing to note the almost complete disregard for the habitat remaining that will be logged. We know clearly that goshawk will use the burned acres for foraging, as there is generally an abundance of prey after fires. This is especially true of the helicopter stands where</p>	<p>A post-Eiler Fire review by the Hat Creek RD wildlife biologist Karen Harville (dated September 10, 2014) stated that both the Burney Mountain and Cornaz Lake [Gomez Lake in the document] were 100% burned and the recommendation was to remove both from the network of goshawk PACs due to the effects of the fire. As stated in the Eiler Fire Biological Evaluation (BE, page 19), goshawk PACs are delineated around known nest sites. The commenter’s desire to place a PAC on some area of suitable habitat would not be consistent with this direction to delineate PACs around breeding sites. Effects to foraging habitat were analyzed in the BE, which concluded that “...about 6,400 acres of fire-killed snags would remain unharvested or lightly harvested in this alternative, representing about 43 percent of the 14,926 acres of USFS lands burned by the Eiler Fire. The agency recognizes that actions proposed in the Eiler Fire (such as commercial salvage harvests and site preparation activities) would cause a reduction in burned forest habitat in order to meet desired conditions and objectives within these areas. However, design features built into the proposed actions will assure that a large amount of this habitat remains.” (BE page 21)</p>

		<p>there will be large snags with continued high quality foraging habitat.</p> <p>Throughout the EA/BE/MIS we read the effects to the wildlife in the Eiler Fire Perimeter were caused by the fire itself and the resulting logging will have only minor, short term, or no effects. However, studies show that salvage logging is generally more destructive fire itself.</p>	
4-3	Comment	<p>You also discuss the upcoming Whittington project and how there will be NGO habitat degraded on that project. Because of this it imperative the Whittington NEPA analysis be reopened. We would like to see a delineation of two additional GPACs somewhere on the Hat Creek Ranger District. There should also be surveys ASAP for NGO to determine if they are using any areas in this nesting season.</p>	<p>Comment noted. Page 19 of the BE states: "PACs may be removed from the network after a stand-replacing event if the habitat has been rendered unsuitable as a northern goshawk PAC and there are no opportunities for re-mapping the PAC in proximity to the affected PAC (USDA 2004, p. 38)." The BE goes on to say "acres of suitable nesting habitat will need to be located outside the fire perimeter to make up for these burned acres."</p>
4-4	Comment	<p>California Spotted Owl</p> <p>We are also very concerned about the effects to the California Spotted Owl (CSO) from the Eiler project. In the MIS report on page 20 the population status and trend for the CSO is listed as stable in the Sierra Nevada. It is not mentioned, until the BE, that the CSO population in the LNF is not stable and in fact has a 93% probability of decline within the LNF (Conner et al 2013). As you state, this region is also an Area of Concern (AOC) for the CSO. These areas were identified as representing potential areas where future problems may be greatest if the owl's status in the Sierra Nevada were to deteriorate. (Verner et al 1992). The habitat is discontinuous, naturally fragmented, and poor quality due to drier conditions and lava based soils. As we now know (Conner et al 2013), the status of the CSO in the LNF has deteriorated significantly (statistically) since 1992. The area has experienced fires and unprecedented amounts of private land clear cutting and salvage logging post-fire. The region is heavily fragmented by private land-holdings.</p> <p>We are pleased you plan to abide by the standards that Bond et al has outlined for no salvage logging within 1 mile of the center of the PAC. It is clear with her numerous studies and others that CSO are often using severely burned forest for nesting and foraging. When you log and replant an area, it completely deletes these benefits of the post-fire landscape for CSO. It seems the entire HRCA/SOHA should be protected from logging. With the coupled effects of the fire, severe private land clear cutting adjoining the PAC, salvage logging and the planned Whittington project you cannot come to the conclusion that this project "should not represent a substantive effect to spotted owl habitat within the fire area". (BE, page 36)</p> <p>There has been a 93% reduction in CSO habitat type (CWHR 4M, 4D, 5M) within the</p>	<p>As discussed within the BE (page 34), "Overall, within the HRCA for Freaner Peak owl, there would be about 72 acres of roadside hazard tree removal, plus 63 acres of ground-based salvage harvest. The only salvage operations proposed within lightly or moderately burned habitat within the HRCA for the Freaner Peak owl site is a minor amount of hazard tree removal along two roads, totaling about 0.25 miles in length of which about 5.6 acres is suitable habitat that burned at low to moderate intensities." This is a minor amount of acreage considering the size of the HRCA, and most of the included acres would involve the felling of trees representing public hazards. There would be no direct effects to the PACs associated with the Burney Springs, Whittington Butte and Freaner Peak PACs, and only a two acre overlap with the Burney Springs HRCA.</p> <p>As the commenter points out, the high-severity Eiler Fire resulted in a 93% reduction in forest types suitable as spotted owl habitat. The proposed action took a conservative approach to salvage harvest in areas adjacent to the one spotted owl PAC located within the fire perimeters. The conclusions reached in the analysis of effects within the BE for this project were informed by literature on the species, as well as the recent declaration on spotted owls authored by Patricia</p>

		Eiler fire. There was 3359 acres, now there is 240 acres. How can you say the proposed action with extensive ground and helicopter based logging, replanting, road building and general havoc going on for years "would have minimal effects to these areas", (Burney Springs, Whittington Butte, Freaner Peak HRCAs/PACs)? How can you come to this conclusion?	Manley, a Supervisory Scientist at the USFS's Pacific Southwest Research Station (Manley 2014).
4-5	Comment	<p>LFPG appealed the Whittington EA decision due to significant effects to the California spotted owl, Northern Goshawk and American marten. As you have noted in the Eiler BE, 389 acres of the Whittington Butte HRCA will be logged. There will be area thin and group selections (GS). The GS will be small clear cuts and the area thin will take the ba down to 120/180 sq.ft. Conditions unsuitable for any of these aforementioned species. The canopy cover will be averaged at 45%. All 5D and 6D habitat would be lost. In the Eiler BE on page 40 and 41 you quote Seamans (2005). "Forests dominated by medium and large trees and canopy closures of 70% or greater (roughly equivalent to 4D and 5D CWHR strata) within a 1,000 acre circle around activity circles was essential to sustaining CSO on the EDNF". Although Seaman's study results were not used to analyze the Whittington project you go on to quote Seamans and Gutierrez (2007), "alteration of as little as 50 acres of high canopied forest habitat within 1,000 acre circles surrounding activity centers increased the likelihood of territory extinction, and that the likelihood of territory abandonment following habitat alteration increased sharply when there was <370 acres of this habitat available within the 1,000 acre circle surrounding the center".</p> <p>Why are we risking these owls when the benefits are dubious and the financial impact to the taxpayers is enormous!?</p> <p>Due to the Eiler Fire and this "restoration plan" the NEPA for Whittington should be reopened. The effects to CSO should be reanalyzed using Seamans study and adding the effects of the Eiler fire and post-fire logging on USFS and private lands. The effects to the CSO and the American marten are unsustainable and you are unable to show in this BE that "salvage will benefit, maintain or enhance habitat for these species".</p>	The decision to reopen the Whittington decision is outside the scope of the Eiler decision. Whittington actions were included in the cumulative effects analysis for the Eiler project. However, the district plans to complete a Supplemental Information Report (SIR) on the Whittington decision to see if the fire created a changed conditions and a supplement is required.
4-6	Comment	<p>American Marten</p> <p>Our biggest concern for this post-fire project is the effect to the American marten. The BE/NEPA analysis again does not show, as mandated by the LNF Land and Resource Management Plan (LRMP 1993), that "salvage will maintain or enhance the quality of habitat for these species". In fact, your BE outlines an enormous effect on these mammals due to the fire and the planned logging in the carnivore "linkage" areas", corridors and Habitat Management areas (HMAs) which marten are known to use. The</p>	The referenced HMAs were not dropped as per the 2004 ROD as the commenter states, but remain part of the land allocations for the LNF since they were not specifically superseded by the 2004 ROD direction. However, the Eiler Fire and the large patch size of high severity fire that resulted from this fire rendered the HMA on the east side of Burney Mountain unsuitable for the LRMP objective of marten habitat.

		<p>LNF LRMP also says “there is currently no research data or other empirical evidence to suggest that we can harvest within furbearer areas and still maintain suitable habitat conditions”. I did not see any research cited in the BE that would lead us to believe carnivore habitat will be maintained.</p> <p>As with the spotted owl, there was a 93% reduction in habitat for the American marten due to the Eiler fire. 3359 acres of suitable habitat for American marten has been reduced to 240 acres. Yet, you plan to log old growth stands burned within the Habitat Management Areas and corridors further reducing habitat for this species.</p> <p>According to my achieved HMA maps for the Hat Creek Ranger District and the map of the HMAs in the BE appendix, all of the helicopter stands on Burney mountain are located in the HMA. You plan on logging virtually all of it, taking huge amounts of large logs and reducing the habitat to zero. The numbers of big trees coming off these stands is astonishing, considering some of them are fairly small stands. The average log UDL to be taken off stand 408 is 24”. Many other stands also average 22-28” UDL. This insinuates there are huge trees on these stands that will be the basis for a complicated post-fire forest with multiple snags, large numbers of down logs and lots of prey coming to feast on the rot, decay, brush fields and new growth that will develop. You aren’t leaving anything untouched in this area.</p> <p>This area that is supposed to have NO scheduled timber harvest unless you can determine that logging will maintain or enhance habitat for marten – which you haven’t. This area is also roadless and bordered completely on the East by clear-cut private lands. You then again say, as many times before, “this area will only be slightly affected by the proposed action”. Really?</p> <p>On page 50 of the BE you describe the nearby “linkage 2” for marten mapped by Kirk & Zelinski in 2010. You say this is virtually the same corridor as was mapped in the achieved Hat Creek/LNF HMA. The linkage/corridor runs north south through the Whittington project between two plantations. Whittington is the project just to the West of the Eiler project, part of which burned in the Eiler fire. Kirk and Zelinski describe this corridor as the “longest dispersal distance between the reserves in Mt. Shasta Wilderness and the Thousand Lakes Wilderness – 82 miles”. It is considered a “severe bottleneck, where dispersal options were constrained by poor habitat permeability, lower elevations and two major highways”. This linkage is considered, “the most tenuous linkage between marten populations”.</p>	<p>The question as to whether salvage harvest would maintain or enhance marten habitat was made mute by the effects of the high-severity Eiler Fire; the “catastrophic wildfire losses” the LRMP warned against has occurred.</p> <p>The plan for limited helicopter harvest in this area would retain many of the features the commenter wishes to be maintained, and the proposed founder stands would also hasten the restoration of a conifer component to this area.</p> <p>The commenter’s statement that no areas would be left untouched in the Burney Mountain area is not accurate. As stated in the BE (page 51), during the planning process 270 acres of burned forest were dropped from proposed helicopter logging on Burney Mountain in order to provide burned forest habitat. The effects to marten of both the Eiler Fire and the proposed actions were analyzed within the BE.</p>
4-7	Comment	<p>Unbelievably, this “severe bottleneck” will be logged in the Whittington project. It is only 0.5 miles wide at this point. 389 acres will be cut down to 120-180 ba/sq.ft. and canopy cover will be reduced to an average of 45%. As mentioned before, I appealed the Whittington project due to grave concerns about the effect on the CSO and especially the American marten.</p>	<p>The decision to reopen the Whittington decision is outside the scope of the Eiler decision. Whittington actions were included in the cumulative effects analysis for the Eiler project. However, the district plans to complete a Supplemental Information Report (SIR) on the Whittington decision to see if</p>

		<p>Considering the effect of the Eiler Fire and salvage, coupled with private land clear cutting I would ask that the Whittington Project EA be reopened to NEPA analysis and you reevaluate all plans for logging within the Habitat Management Area.</p>	<p>the fire created a changed conditions and a supplement is required.</p>
4-8	Comment	<p>You quote the Moriarity et al study extensively in your BE when discussing effects to the American Marten. Katie Moriarity wrote her PhD dissertation for Oregon State University in 2014 on research obtained in the LNF. The title is: "Habitat Use and Movement Behavior of Pacific Marten (<i>Martes caurina</i>) in Response to Forest Management Practices in Lassen National Forest, California". You will find her PhD study attached to these comments.</p> <p>Ms Moriarity has been studying American marten for years under many excellent researchers, often in the LNF. We have always been hopeful that her studies would be put to use for forest planning and practices in the LNF. Unfortunately, the Eiler fire project again shows the USFS can elicit study after study regarding sensitive species, but rarely use the results of the studies in forest practice to the extent necessary to change the status quo of declining species. This is particularly frustrating as the focus of the project design is to be science based.</p> <p>Her latest studies clearly show (again) that American marten avoid simple stands, rarely use openings and consistently choose old-growth characteristic stands for foraging and nesting.</p> <p>She rather alarmingly notes on page 107, "Additional research should be conducted to understand whether there is a threshold that surpasses a marten's ability to survive in an area with additional fragmentation or habitat loss. With our current knowledge, I suggest managers consider (1) including movement corridors of spatially complex stands adjacent to simple stands and openings. (2) extended thinning rotations lengths to reduce concurrent impacts within a landscape or home range, and (3) that homogeneous simplification of forested stands could be improved for both martens and their prey by leaving residual ground level structure (logs, snags) within managed or simplified stands."</p> <p>She also says on page 108, "Marten populations decline rapidly, often leading to local extirpations, with as little as 25% forest cover removed within a landscape. Thus, monitoring marten populations provides a canary in the coalmine opportunity for many forest-dependent species. We are fortunate that martens are not yet rare in the Pacific Northwest. However, current petitions to list wolverine, Pacific fisher and the</p>	<p>The BE analyzed potential effects to American marten, and concluded (page 60) "Within the cumulative effects analysis area, the existing condition was created by the effects of the Eiler Fire and the high proportion of lands burned at high severity. Treatments proposed within the Eiler Fire Salvage and Restoration Project would not substantively add to these effects to American marten and their habitat due to the project avoiding substantive effects to areas within the fire important to marten (Burney Mountain and the southern portion of the fire). Within the fire footprint, on-going projects such as salvage harvest on private lands and fuelwood harvest on USFS lands would not represent substantive cumulative effects. The primary impacts to marten habitat were caused by the Eiler Fire itself."</p> <p>However, given the changed conditions caused by the Eiler Fire, the BE (page 60) also recognized that, "Reasonably foreseeable future treatments associated with the Whittington Project would further add to the cumulative effects to marten habitat and marten connectivity within the larger cumulative effects analysis area given the changed condition created by the Eiler Fire. The potential of future thinning, DFPZ and group selections treatments within the bottleneck of the least-cost pathways corridor as well as the LRMP-designated network of habitat management areas and connecting corridors could, along with the Eiler Fire itself, serve to cumulatively decrease the connectivity of marten habitat within this area outside of the fire footprint."</p>

		coastal 109 subspecies of martens (<i>Martes caurina humboldtensis</i>) as Federally endangered suggests that marten population stability should not be taken for granted." Are we willing, with this Eiler project, to push this species toward instability? Are we willing to allow this corridor and Habitat Management area to be further fragmented in an area potentially providing the only corridor between The Mt. Shasta Wilderness and Thousand Lakes Wilderness?	
4-8.1	Reference	Habitat Use and Movement Behavior of Pacific Marten (<i>Martes caurina</i>) in Response to Forest Management Practices in Lassen National Forest, California. By Katie Moriarity for fulfillment of PhD.	This document was used in the analysis of potential effects of the project to American marten.
4-9	Comment	Unless there are significant changes made to the Eiler project within the Carnivore Habitat Management Area and CSO habitat we request the Whittington Project NEPA analysis area be reopened. There has been no justification in the BE to say that American marten habitat will be "maintained or enhanced" as required by the LNF LRMP.	The Eiler Fire and the large patch size of high severity fire that resulted from this fire rendered the HMA on the east side of Burney Mountain unsuitable for the LRMP objective of marten habitat. The decision to reopen the Whittington decision is outside the scope of the Eiler decision. Whittington actions were included in the cumulative effects analysis for the Eiler project. However, the district plans to complete a Supplemental Information Report (SIR) on the Whittington decision to see if the fire created a changed conditions and a supplement is required.
4-10	Comment	In your BE you discuss habitat "connectivity", "corridors", and "linkages", especially regarding American marten, but important for all our sensitive species. We would like to reference "Planning for Connectivity", written by Defenders of Wildlife et al, "A Guide to connecting and conserving wildlife within and beyond American National Forests". The guide is designed to help forest managers and the public develop effective connectivity conservation strategies mandated by the National Forest Management Act (NFMA) in April 2012. These regulations, commonly referred to as the "2012 Planning Rule", established a process for developing and updating forest plans and set conservation requirements that forest plans must meet to sustain and restore the diversity of ecosystems, plant and animal communities and at-risk species found on our public lands (36 C.F.R. §§ 219.1-219.19) The new Planning Rule includes explicit requirements for managing ecological	All proposed treatments within the Eiler Project are consistent with current Plan direction. The Forest has recognized the importance of managing for connectivity, which is why the Forest specifically contracted with Tom Kirk to map the least-cost pathways corridors. This is also why the agency has included the concerns about cumulative effects of the Whittington Project given the changed conditions caused by the Eiler Fire itself. Potential effects to marten, including issues related to habitat connectivity, were discussed in the BE. Managing for connectivity will be considered in Plan revision, currently scheduled to be initiated in 2016. On May 14, 2015, the Forest coordinated a presentation by Katie Moriarty that

		<p>connectivity on national forestlands and facilitating connectivity planning across land ownerships. This is the first time this has been required in the history of U.S. public land management. Considering the huge impact this fire and private land logging has inflicted on "connectivity" in the Eiler/Whittington area it is paramount that these requirements be met. We know you have included effects to private lands in your analysis, but are you "managing and planning for ecological connectivity with private land owners"? Have all the effects of the burn and subsequent clear cuts been taken into consideration when planning your logging and restoration? We don't believe so.</p> <p>This paper also outlines the probable effects of climate change on connectivity. In the LNF we are seeing a significant decrease in winter snows that will affect American marten habitat. We know from Moriarity studies and others that American marten prefer deep snow cover and the complex habitat afforded by old growth forests. We would request that this Defenders of Wildlife paper and the new requirements from NFMA on connectivity be incorporated into planning for the Eiler project. Why wait until our LNF LRMP is rewritten? Be proactive and plan for the future NOW. This paper is sent as an attachment to my comments. It is extremely important that it be considered in planning for Eiler.</p>	<p>was intended in part to begin discussing concerns related to marten connectivity.</p>
4-10.1	Reference	<p>"Planning for Connectivity", Defenders of Wildlife, Center for Large Landscape Conservation, Wildlands Network and Yellowstone to Yukon Conservation Initiative 2015.</p>	<p>This publication and many others, especially research conducted here on the Forest by Katie Moriarty and others, and the topic of connectivity will be considered as part of the Plan revision process. See also response 4-10.</p>
4-11	Comment	<p>We are very disappointed there is no plan for prescribed fire in the Eiler project. We requested this in our scoping comments, it is recommended or mandated by Region 5 MOU and the U.S. fire program and yet there is no mention of prescribed fire in the EA. Fire needs to be returned to the landscape. Plantations and thinning need to be designed to return fire to the landscape. Where is this in the Eiler project planning? Where is there a plan to reburn areas that will not be logged so they are less of a fire hazard in the future? We are not there yet.</p>	<p>Prescribed fire is included in the Proposed Action of the Eiler Project. Pages 19-20 of the EA state: "Non-merchantable trees of smaller diameters would be removed as biomass, masticated, felled and lopped, machine or hand piled and burned or broadcast burned." These fuels treatments include areas that will not be salvaged logged.</p> <p>The Eiler project decision only covers this current treatment and one manual plantation release treatment. Future maintenance of plantations and other components of the landscape would be covered in future analysis.</p>
4-12	Comment	<p>You are planning new designs for plantations, but there continues to be too many acres planted "conventionally". Conventional plantations do not work ecologically or firewise. They become immediate fire hazards and do not provide habitat for decades. Often</p>	<p>Of the 5,645 acres that will be reforested, 2,334 acres (41%) is in conventional planting, 2,255 acres (40%) in cluster planting, and 1,056 (19%) in founders stands. The silviculture</p>

		<p>herbicides and pesticides are needed for maintenance. The Brown fire plantation burned again in the Eiler Fire. You referenced at least 3 times in the Eiler BE the pine plantations that will be logged in Whittington. 361 acres will be Baker Cypress treatments. Some of these pine plantations are in an owl HRCA, or NGO territories and border the HMA corridor.</p>	<p>report states on pages 22-23: "Planting strategies would be utilized to assist in creating forest heterogeneity at different scales to produce a more disturbance-resilient landscape and enhance ecological function in the future. Topography, slope position, aspect, slope steepness, and soil productivity would be taken into account to create different forest structures on the landscape that mimic those created by an active fire regime. For example in steeper high elevation areas, density and canopy cover would be highest in valley bottoms, decreasing over the midslope and become lowest near and on ridgetops. In lower elevation broad valley bottoms, densities and canopy cover would be lowest near the bottoms and increase with elevation. Density and canopy cover along the hill slope would be higher on northeast aspects compared to southwest and vary with slope becoming more open as slopes steepen. This strategy would not only create heterogeneity to increase resiliency but would also create habitat for species that prefer denser canopy mature forest structures, such as northern goshawks. No reforestation would occur in snag retention leave islands."</p>
4-13	Comment	<p>"These pine plantations were old brushfield conversions that were initially developed in the 1930s. The presence of these brushfields was noted by General Land Office surveyors in 1881 and was recognized as reflecting a long history of past fires. (Dunning and Kirk 1939). If these plantations were recognized as brushfields in the 1930s due to a long history of past fires WHY THE HECK ARE WE GOING TO REPLANT AGAIN!!!! Haven't we learned in 85 years there are places where logging and replanting is futile?????</p> <p>If you absolutely decide you have to plant all these trees, each plot should be monitored to see the differences between the designs for "cluster, legacy and conventional plantations". Please also see the attached article from the University of California, California Agricultural Journal. The article by Susan D. Kocher "Outlook: The crisis in California Forests and what to do about it" has recommendations for thinning and replanting. Her recommendation is to PLAN AND PLANT plantations so they can be burned every 10-15 years. Build RX fire into the project plan NOW.</p>	<p>The pine plantation the commenter is referring to is not planned for reforestation in the Eiler Project. This area includes stands 522,526, 560, 561, 562, 564, 565, 5220, 5260, 5600, and 5620. The 361 acres of Bakers cypress treatments, 16 acres will be replanted with Baker cypress, to see if the species responds to planting. The other areas will be allowed to naturally regenerate with Bakers cypress. Site visits in the Spring of 2015 showed cypress seedlings throughout the area. The remaining area of the old brushfield (62 acres) is not planned for reforestation, but will be allowed to recover naturally back to a brush component. See EA Appendix A, Map 6, and Silviculture Report, Appendix A, Table 7.</p>
4-13.1	Reference	University of California, California Journal of Agriculture, January-March 2015	The agency generally agrees with the principals described in

		<p>Special Issue on Forests "Outlook: The Crisis in California forests and what to do about it" by Susan D Kocher and "Ecosystem Restoration" by Erin Kelly and Jonathan Kusel</p>	<p>this article, and many were used in the planning of the proposed action. The article states that fuels treatments are critical, including the use of prescribed fire. Outside of the 3,048 acres of salvage units, there are 4,119 acres of fuels treatments units, which includes removing biomass, mastication, piling and burning, or broadcast burning. The FS intends to use prescribed fire as a tool in the future on this landscape, however future prescribed fire beyond this entry is not included in this decision.</p> <p>The article also discusses planting strategies that take into account aspect, diversity, and future fire risk. All of these were used in development of planting strategies for the Eiler project. In addition to the response to comment 4-12, IDFs were included for placement of leave islands and reforestation for future fuels concerns (EA pages 21 and 26).</p>
4-14	Comment	<p>This California Agricultural Journal also contains an article written by Jonathan Kusel and Erin Kelly regarding the Burney-Hat Creek Collaborative and the Burney Gardens THP project. The article outlines the "collaboration" between private land owners, USFS and interested parties in designing the Burney Gardens THP. The truth is this THP has not been done yet, even though it was submitted 2-3 years ago. Our collaboration in the Burney-Hat Creek collaborative has brought treasury monies to the Hat Creek ranger District but most of the money is being used to log after fires, a very frustrating agenda for our collaborative.</p>	<p>Comment noted.</p>
4-14.1	Reference	<p>University of California, California Journal of Agriculture, January-March 2015 Special Issue on Forests "Outlook: The Crisis in California forests and what to do about it" by Susan D Kocher and "Ecosystem Restoration" by Erin Kelly and Jonathan Kusel</p>	<p>This article discusses the Burney Garden THP project, which was part of the CFLR collaborative group. The agency met with the CFLR collaborative group twice while planning the Eiler project, and received positive feedback from the group.</p>
4-15	Comment	<p>Lastly, the cost to the American taxpayer to log these lands is simply unbelievable. On page 35 of the EA the costs/benefits are outlined. The cost of the preferred alternative is \$7,734,537. Yes, you are providing jobs for USFS staff, local logging companies and stimulating the economy of the area. However, is this justified considering the negative effects of the plan and the actual harm to wildlife and the ecology of the forest itself? Is it justified when these plantations will most likely burn again as they realized in the 1930s? As we requested in our scoping comments – log something green that we can truly restore and "save" from another fire, which will certainly happen again.</p>	<p>Comment noted.</p>

Respondent #5: Chad Hanson, John Muir Project and Justin Augustine, Center for Biological Diversity, letter dated May 14, 2015

Comment #	Identification	Summary of Comment	Responsible Official's Disposition
5-1	Comment	<p>On behalf of the John Muir Project of Earth Island Institute and the Center for Biological Diversity, I am submitting the following comments on the draft Environmental Assessment (EA) for the proposed Eiler Fire Salvage and Restoration Project (Eiler project). In light of the following, we request that you conduct no post-fire logging beyond necessary felling of genuine hazard trees along roads maintained for public use (Level 3-5).</p> <p>1: We fully incorporate by reference our earlier Eiler scoping comments, and all attachments to those comments, into these comments on the Eiler EA, and as a part of our Eiler EA comments. In addition to our scoping comments, we offer the following additional comments with regard to the Eiler EA.</p>	<p>Comment noted. The Scoping comments and FS responses to those comments are located in the project record.</p> <p>An alternative to treat hazards along ML 3 and higher roads was considered, but was eliminated from detailed study due to the fact it did not meet multiple needs. See discussion in EA (pages 13-14).</p> <p>Alternative 3 was developed and fully analyzed in response to comments received in the scoping period. This alternative limited treatment to hazard tree removal along 32 miles of ML2 and higher roads. This alternative met the need to reduce safety hazards in high use areas such as NFS roads.</p> <p>ML 2 roads and higher were considered since all ML 2 roads are open to the public and maintained by the FS. Maintenance includes, but is not limited to, blading, brushing, and culvert maintenance. Only 7.4 of the 32 miles of road in the project area are ML 3 and higher. ML2 roads in the project are used by the public for recreation, wood gathering, and access private timberland. Due to the high use, hazard trees along ML 2 roads were included to meet the need of safety to all forest users.</p>
5-2	Comment	<p>2: An EIS is required to analyze cumulative impacts to Black-backed Woodpeckers from proposed post-fire logging in both Eiler and Bald fires, given that the distance between the Eiler and Bald fires (about 9 miles, or about 5 miles, depending upon whether the small isolated portion of Eiler fire is included) is much less than the dispersal distance of Black-backed Woodpeckers, which is generally about 30 or 40 miles (Hoyt and Hannon 2002, Rota 2013). Thus, planned losses of Black-backed in Bald fire mean that Black-backed that are not directly killed by logging in Bald will be dispersing to find other suitable habitat, meaning that there will be more pairs competing for the limited amount</p>	<p>The cumulative effects analysis area was expanded from USFS lands burned within the Eiler Fire to the entire Eiler Fire footprint in order to capture the effects of salvage harvests on private lands within the burn perimeter. Black-backed woodpeckers inhabit burned and unburned forests (Fogg et al 2014), and may vacate previously held home ranges in order to disperse into recently burned areas. Such dispersal may occur from both green forests and unburned forests. A</p>

		of suitable habitat proposed to be retained in Eiler fire than USFS is acknowledging, and less food available for remaining pairs.	cumulative effects analysis area of 30-40 miles around the Eiler Fire perimeter to capture the potential for dispersal would be infeasible for this project. In addition, as stated in responses to comments 5-2.1 and 5-2.2, below, the Eiler Project is consistent with management suggestions of both Hoyt and Hannon (2002), and Rota (2013), referenced by the commenter.
5-2.1	Reference	Hoyt and Hannon 2002	Hoyt and Hannon (2013) did not study nor document dispersal range of the species, as implied by the way this paper was referenced in comment 5.2. The authors do suggest that, "Both species may be more sensitive to salvage logging in smaller burns (e.g., <2000 ha), since the majority of the burned area can be logged within 2-years post-fire, and these small fires may represent "stepping stones" between large patches of recently burned habitat". As stated in the Black-Backed Woodpecker Supplemental report for this project (p. 14, see Tables 2 and 3) approximately 3,029 acres of the existing 4,854 acres of burned forest, black-backed woodpecker habitat would not be salvaged by this project, which includes burned forest habitat in both Inventoried Roadless Areas and the Thousand Lakes Wilderness. As such, these acres would continue to provide a "stepping stone" for this species.
5-2.2	Reference	Rota 2013	As part of this study dispersal of individuals was investigated. The author observed a total of 18 dispersal events ranging from 4 – 60 km [about 2-37 miles], which is consistent with the range the commenter stated. The primary management recommendation from this dissertation was, "We recommend the most efficient strategy for maintaining regional populations of Black-backed Woodpeckers is to retain patches of 1-2 year post summer wildfire habitat by exempting portions of recently burned forest from salvage logging. Recently burned forest patches should be at least 40 – 200 hectares and primarily composed of ≥ 27 m ² basal area / ha of trees that burned at moderate or high severity, with at least 40% of the basal area composed of

			trees \geq 27 cm DBH." The recommendation for retaining patches of burned forest is consistent with the Eiler Project, in which approximately 3,029 acres of the existing 4,854 acres of black-backed woodpecker habitat would not be affected by salvage operations. Due the availability of Forest-specific data regarding habitat parameters used by black-backed woodpeckers on the Lassen NF (Siegel et al 2013), the agency used different values for desired levels of burned tree basal area than what was provided in this paper, which studied the species and its habitat use in South Dakota.
5-3	Comment	3: An EIS is required due to the enormous overall cumulative losses of Black-backed Woodpecker pairs (about 75%, according to the EA, and Black-backed Woodpecker Supplemental Report) that would result from both the private lands logging and the planned logging on USFS lands in the Eiler fire.	<p>As analyzed in the Black-Backed Woodpecker Supplemental Report for this project, the Tingley model predicted that sufficient habitat existed within the Eiler Fire area to support 142 black-backed woodpecker pairs, including 72 pairs predicted to be supported on USFS lands, and 70 on private lands. For the purpose of the analysis it is assumed that after private salvage harvest, the private lands within the project area would not retain habitat to support any of these 70 pairs.</p> <p>Overall, on USFS lands, the Tingley model predicted that up to approximately 29 pairs could be supported within areas deferred from treatment, and up to another 9 pairs retained in units with limited treatments, for a total of up to 38 pairs. This represents at best a 53 percent retention of the 72 pairs predicted to be supported on USFS lands. If the three pairs predicted to be supported in helicopter units were considered fully 'removed' as a result of the proposed harvest, and if the 6 pairs predicted to be in units identified for founder stands was reduced to five pairs, then 34 pairs would be predicted to be retained post-harvest on USFS lands.</p> <p>Combined with the 70 pairs assumed to be 'lost' on private land, this equates to a 24 to 27 percent retention of the 142 pairs of black-backed backed woodpecker that were predicted to be supported by the Eiler Fire as a whole. Therefore, the vast majority (70 of 104 or 108) of black-backed woodpecker pairs analyzed as potentially lost occur on private timberlands. Modeling indicated 47 to 53 percent of predicted pairs on USFS lands would be retained.</p>

			<p>The Tingley model is a tool for making quantitative predictions about the effects of management scenarios on the local Black-backed Woodpecker population. It is up to land managers to balance predicted population reductions with other management objectives, and determine what level of population reduction is acceptable (Siegle, Tingley, and Wilkerson 2015).</p> <p>Proposed actions were modified during the Eiler Project planning process to retain habitat for this species. For instance, approximately 549 acres of proposed helicopter units were dropped from the proposed action in order to maintain burned forest black-backed woodpecker habitat (Supplemental Report, p. 15). As a result of project design, more burned forest black-backed habitat woodpecker will be available and more black-backed woodpecker pairs would be supported post-project than in the pre-fire condition.</p> <p>All the above actions and analysis were performed for this species even though the species has no Federal conservation status. It is neither a USFS Sensitive species nor a Federally listed species. In addition, there is no evidence of a decline in population of this species in California, and no broad-scale change in the species' distribution in California (Siegel et al 2015). Therefore, while there may be some adverse effects to individuals, as analyzed in the Black-Backed Woodpecker Supplemental Report, there would be no significant effects to the species' population, especially since after project implementation there would still be more burned-forest habitat then existed prior to the fire.</p> <p>The commenter's concern of "enormous overall cumulative losses of Black-backed Woodpecker pairs" does not represent a significant issue or level of controversy that warrants the preparation of an EIS.</p>
5-4	Comment	4: An EIS is required due to highly uncertain and unknown effects, and cumulative effects, that will result from plans to conduct post-fire logging in Black-backed Woodpecker nesting season—potentially directly killing chicks in the nest before they can fledge (in both 2015 and 2016 nesting seasons), contrary to the explicit recommendations of the Forest Service's own scientists in the Forest Service's Black-	The potential effects of the Eiler Fire to black-backed woodpeckers were analyzed at length in the Black-Backed Woodpecker Supplemental Report. This analysis used the Tingley model to help quantify the potential effects of the proposed action on the predicted number of woodpecker pairs

	<p>backed Woodpecker Conservation Strategy (Bond et al. 2012). The Forest Service's refusal to include this very reasonable mitigation recommended by the Conservation Strategy will result in compounded, multiplied adverse impacts to Black-backed by creating an ecological trap (i.e., the fire draws in Black-backed, which then nest and attempt to reproduce in the fire, only to be directly killed by felling of nest trees, or logging of all snags around nest trees). The EA and Black-backed Woodpecker Supplemental Report do not meaningfully or adequately address this issue because they imply that known nest trees may not be cut down. This would only be meaningful if the Forest Service planned to survey for Black-backed nests prior to logging, but no such surveys are proposed in the action alternatives. Moreover, even if a Black-backed nest is not cut down, the removal of all or nearly all snags in their home range surrounding the nest tree would leave the birds with insufficient food (wood-boring beetle larvae in fire-killed trees) to survive, resulting in likely starvation. The mention in the EA and the Black-backed Report that the recommendations of the Black-backed Conservation Strategy are not forest plan requirements misses the point entirely: this is a NEPA issue pertaining to disclosure of potentially significant impacts, not a forest plan management direction issue under NFMA.</p>	<p>the fire area could support. The potential effects to habitat were also quantified. This analysis was informed by the latest research on the species. Therefore, there are no significant levels of uncertain or unknown effects of the proposed project to this species or its habitat.</p> <p>The purpose of the conservation strategy for the black-backed woodpecker "is to provide a roadmap for conserving Black-backed Woodpeckers in California through informed management." (Bond et al. 2012, p. 1). It seeks to summarize known information about the species, recommends management approaches for conservation, and suggests future research priorities (pp. 1-2). It is not Forest Service guidance or direction, and it is not a regulatory document. Thus the Forest Service is not legally bound to follow the recommendations in the strategy. Incorporated by reference is a clarification letter provided by Diana Craig, co-author of the Black-backed Woodpecker Conservation Strategy, which addresses the misrepresentation of the Conservation Strategy in the comments above (Craig 2014).</p> <p>Moreover, by its very nature, the Black-backed Woodpecker Conservation Strategy only considers one species. However the FS has to balance multiple priorities, objectives, uses, and species in its activities as a multiple use agency. And, at times, certain management objectives are in tension, if not direct conflict, with one another. For example, through this Project, the Forest seeks to capture the economic value of burned conifers and to reduce fire hazard by removing burned trees. Yet, the Forest also wishes to conserve burned forest habitat for the black backed woodpecker and other species. The Forest has tried to strike a reasonable balance between these two goals at the landscape level, but it is simply impossible to fully achieve both of these goals on each and every acre. To some extent, the need to balance multiple priorities is acknowledged by the Conservation Strategy itself (Bond et al., p. 44), which says that "Wildfire in forested environments is sometimes followed by the removal of dead or dying trees, in pursuit of one or more of many possible management goals. Commonly referred to as 'salvage' or 'salvage logging', it may be done to capture the economic</p>
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			<p>value of wood products or for other reasons...Other reasons for post-fire snag removal include: mitigating hazards associated with roads, trails, administrative sites, and/or other sites where people may find themselves in unacceptably hazardous situations. Reducing hazards in areas where accelerated restoration of forested environments is desired for multiple reasons, including, for example, wildlife habitats that would otherwise be delayed without prompt reforestation actions. Reducing long-term fuel levels that could subject developing forest trees to intense heat and resultant mortality.”</p> <p>A limited operating period (LOP) is a seasonal period during which Forest Service management operations must be limited to reduce disturbance to threatened, endangered, or Forest Service Sensitive wildlife species during the breeding season (collectively referred to as TES). LOPs are designated in Forest Plan direction for TES species and as appropriate, through consultation with USFWS for threatened or endangered species.</p> <p>The black-backed woodpecker is not a TES species in Region 5. The black-backed woodpecker was evaluated by subject matter experts for the potential inclusion on the Region 5 Forest Service Sensitive Species list (final list updated on July 3, 2013), but the evaluation did not result in adding this species to the Regional Foresters Sensitive Species list (July 3, 2013 Letter from Regional Forester), Terrestrial Wildlife BE Appendix. There is currently no law, regulation, or policy requiring LOPs for black-backed woodpeckers. Therefore we do not have a limited operating period in place for black-backed woodpeckers and do not believe an LOP is necessary.</p> <p>Potential direct effects are considered to be short term and will only affect treated areas. Harvesting of fire-killed trees would occur throughout the year including time periods that are outside the black-backed woodpecker breeding season. Retained snags in treated areas would continue to provide cavity and foraging substrates. Untreated areas that burned at high severity and are suitable black-backed woodpecker habitat would be left intact, providing nesting and foraging</p>
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			<p>habitat for black-backed woodpeckers. For example, of the approximate 4,854 acres of suitable black-backed woodpecker habitat on USFS lands within the Eiler Fire, there would be no salvage harvest on 3,029 acres (Supplemental Report, p. 14). Habitat characteristics important to black-backed woodpecker as described in the Conservation Strategy (Bond et al. 2012) and the recent Tingley et al. (2014) model when determining specific retention areas for black-backed woodpeckers were considered.</p> <p>The Executive Summary of the Conservation Strategy (page 1) clearly explains that "Interest in the conservation status of the black-backed woodpecker in California, the species' sensitivity to some post-fire forest management actions, and the lack of synthesized information from California for this species, spurred the development of this Conservation Strategy."</p> <p>The Conservation Strategy is not a legally binding, agency policy, or a regulatory document; moreover, it was not designed to constrain the Forest Service in its actions and activities. It seeks to summarize known information about the species, recommends management approaches for conservation, and suggests future research priorities (Bond et al. 2012).</p> <p>All the above actions and analysis were performed for this species even though the species has no Federal conservation status. It is neither a USFS Sensitive species nor a Federally listed species. In addition, there is no evidence of a decline in population of this species in California, and no broad-scale change in the species' distribution in California (Siegel et al 2015). Therefore, while there may be some adverse effects to individuals, as analyzed in the Black-Backed Woodpecker Supplemental Report, there would be no significant effects to the species' population, especially since after project implementation there would still be more burned-forest habitat then existed prior to the fire. The commenter's concern does not represent a significant issue or level of controversy that warrants the preparation of an EIS.</p>
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5-4.1	Reference	Bond et. al. 2012	This document was utilized during the planning process of this project, and was used during the analysis of effects. Also, see response to 5-4.
5-5	Comment	<p>5: An EIS is required due to cumulative effects from fuelwood tree cutting, which the EA and Black-backed Woodpecker Supplemental Report admit would result in "additional" loss of Black-backed pairs over and above the 75% or so cumulative loss of pairs from ongoing logging on private lands and planned logging on USFS lands. The EA does not estimate or disclose the likely extent of additional pairs that would/could be lost from fuelwood cutting, nor does the EA propose any restrictions on fuelwood cutting in the action alternatives. Moreover, the EA again ignores the recommendations of the Black-backed Woodpecker Conservation Strategy on this issue—i.e., the recommendation that fuelwood cutting be prevented after fires in order to protect nesting Black-backed from compounded and cumulative adverse impacts. The suggestion in the EA and Black-backed Report that fuelwood cutting would be limited to roadside areas that would have already been logged is false and misleading—nowhere does the EA identify a single restriction on the location of fuelwood cutting in the EA's action alternatives, nor do the EA or Black-backed Report identify any such restriction in the forest plan.</p>	<p>Fuelwood harvest was analyzed as a cumulative effect for black-backed woodpeckers in both the Supplemental Report (pp. 19-20, 21-22, 23) and the MIS Report (pp. 17-18, 19). The conclusion within these analyses was that fuelwood harvest should not represent a substantive cumulative effect in terms of snag reduction. This conclusion was reached because fuelwood harvest would primarily occur immediately along roads, in relatively flat areas that allow off-road travel, and along user-created roads, post-harvest skid trails, meadow edges or other features that allow off-road travel. Helicopter units and portions of other units on slopes that would prevent off-road travel or would make fuelwood gathering too arduous would be avoided. As part of the design of this project, snag retention clumps were not placed within about 150 feet of ML2 or greater roads where snags would be considered as hazards. Thus retained snag patches would be distant from roadsides and should be less accessible. The presence of stumps along roadsides corridors may also make off road travel difficult. Also, because Siegel et al (2013) indicated that the main woodcutting activity in the fires they monitored was along roads, and since it is along roads that hazard trees will be felled and removed as part of this alternative, the greatest proportion of snags that would most likely be targeted by woodcutters would be removed anyway by this alternative. Inevitably some retained snags will likely be removed by fuelwood harvesters. However, given the large areas of snag retention (see discussion above), including within the Wilderness and Roadless Areas, and the presence of slopes and other features that would limit access, most of the fuelwood harvest should be localized to areas that are accessible, as indicated in the Siegel et al (2013) study. The commenter's characterization that fuelwood harvest was considered to result in "additional" loss of black-backed pairs does not accurately reflect the analyses. The contested</p>

			<p>observation that fuelwood would be restricted largely to roadsides is supported by observations of Siegel et al (2013). Therefore, there will not be a substantive additive or cumulative effects from fuelwood cutting because the areas where such cutting would likely take place would be in areas that would already have been harvested for roadside hazard tree removal, and the analysis of direct and indirect effects already takes into account the adverse impacts in those areas to black-backed woodpeckers and their habitat. As a result, the potential effects of fuelwood harvest do not represent a significant cumulative effects issue that would warrant the preparation of an EIS.</p>
5-6	Comment	<p>6: An EIS is required to analyze cumulative effects from "flushing" of pines (production of new green foliage one year post-fire in pines that appear to be dead initially, but are not), and the extent to which this will lead to less overall Black-backed Woodpecker habitat being available in the fire, and even fewer pairs remaining after logging than the draft EA currently reports. On my recent site visit to the Eiler fire (May 11th), I saw flushing already beginning on countless pines with 100% crown scorch (0% green needles).</p>	<p>The fire-injured tree marking guidelines for the Eiler Fire are based on published models from the Hood et al. 2010 study (Hood, Sharon M.; Smith, Sheri L.; Cluck, Daniel R. 2010. Predicting mortality for five California conifers following a wildfire. Forest Ecology and Management. 260: 750-762). These models were developed after monitoring fire-injured trees for 5 post-fire years. Yellow pines were assessed for both the level of crown scorch and the level of crown kill, accounting for any post-fire flushing that occurred. From the crown scorch data, the pre-bud break (pre-needle flush) guideline for yellow pine was developed. This guideline is appropriate for marking trees after the fire and before bud break/needle flush the following growing season. The pre-bud break model exhibited a similar high degree of accuracy as the post-bud break (post-needle flush) model from the same study.</p> <p>Some post-fire flushing of individual ponderosa and Jeffrey pine may occur throughout the project area at the onset of bud break by the end of June 2015. Even if some trees do flush after being marked, there is a high probability that they will ultimately die. Data from the Hood et al. 2010 study revealed that 84% of all yellow pines <30" dbh with ≥ 90% crown length scorched died within 5 years regardless of post-fire flushing (n = 1069). The data also revealed that 95% of all yellow pines between 30" and 40" dbh with ≥60% crown length scorched</p>

			died within 5 years regardless of post-fire flushing (n=362).
5-7	Comment	<p>7: An EIS is required to analyze impacts and cumulative effects from the substantial increase in intensity/degree of removal of Black-backed Woodpecker suitable habitat relative to levels in recent years, i.e., a much higher proportion of Black-backed habitat/pairs is planned to be removed in Eiler (and Bald) than the average of 21% on USFS lands since 2006 (and 31% on all lands), according to the Regional Analysis on pp. 24-28 of the Black-backed Woodpecker Supplemental Report. This is especially true given that Odion and Hanson (2013) found that, over the next three decades, logging even one-third of Black-backed habitat, in combination with ongoing fire suppression and thinning, would lead to a loss of most of the existing Black-backed population in the California/Oregon subspecies within that timeframe, and would create a substantial risk of extinction. The Forest Service's plan to conduct logging that would result in the overall cumulative loss of well over 75% of Black-backed pairs in the Eiler fire (and about half, or more, in Bald—likely much more than half, given unrestricted fuelwood cutting that would follow post-fire logging), is vastly in excess of the level that Odion and Hanson (2013) found represents a major threat of extinction for this species.</p>	<p>The referenced Regional analysis on pp 24-28 of the Supplemental Report was an effort by the Regional Office of Region 5 to monitor trends in burned forest, black-backed woodpecker habitat on USFS lands within the range of the species in California. This analysis showed that approximately 21% of the USFS acres that burned from 2006-2013 and were suitable for black-backed woodpeckers had been, or were proposed to be treated with post-fire timber removal. However, this 21% was never intended to serve as a threshold of concern, or a desired proportion of habitat that would be affected in future projects. It was simply the figure arrived at by this analysis of habitat trend. That any one fire salvage project would affect more or less than this 8-year regional average does not represent a significant issue or a degree of controversy that would warrant the preparation of an EIS. The referenced findings by Odion and Hanson (2013) were, as stated in that paper, based on modeling projections, not empirical findings. As the authors state, "...it is important to recognize uncertainty in the projected effect of strategically treating 20% of the mature forested landscape [a level used in their modeling]. This is based on modeling projections, not empirical findings. Future fire is also uncertain due to climate change." Modeling may be used to indicate any level of desired concern based upon the parameters fed into the model. One of the primary parameters was that 20% of mature forested landscapes would be thinned in a 27-year period, and this in turn would reduce wildfire by 50%. There are no plans, and no policy, to thin 20% of mature forested landscape on USFS lands within California, especially not in the 27-year period in which these treatments were assumed to take place; this parameter does not reflect reality.</p> <p>Also, the authors do not state the assumptions they made about post-thinning stand attributes, but apparently assumed that any "thinned" stand would represent non-habitat. However, due to constraints on timber harvest as a result of the 2004 SNFPA ROD, thinning within mixed-conifer or true fir forests generally retains 40% or greater canopy cover within</p>

			<p>the thinned stands. This is within the level (albeit at the lower level) of canopy closure that is used to define forested stands that, when burned, provide suitable black-backed woodpecker habitat.</p> <p>In addition, the parameter of a 50% reduction in wildfire, assumed to result from this thinning effort, is also not reflective of a policy goal or reality.</p> <p>In addition, recent research by Fogg et al (2014) found that black-backed woodpecker occurrence in green, unburned forest is much greater than suggested by Odion and Hanson (2013), who focused their modeling on burned forests only. Overall, the modeling used does not reflect the reality of policy or practice, and thus this comment or concern does not represent a significant issue that warrants the preparation of an EIS.</p> <p><u>Recent Fire Trends:</u> In most of the western United States, recent research has indicated that fire size is increasing, large fires are becoming more frequent, and in at least some locations the annual percentage of high severity fire is also increasing (Miller et al. 2012a). Recent research has also demonstrated there has been an increased proportion of high-severity fire in yellow pine and mixed-conifer forests in the Sierra Nevada between 1984 and 2010 (Long et al. 2014; Miller and Safford 2012; Miller et al. 2009). Average and maximum sizes of contiguous areas ("patches") of stand-replacing, high-severity fire within these conifer forests approximately doubled across the period of analysis. Increasing areas of high-severity fire and high severity patch size can occur when greater area is burned at constant proportion of high-severity fire, or when the proportion of high-severity fire within fire perimeters increases, or some combination of both (Miller and Safford 2012; Miller et al. 2009). According to the authors, these increases co-occur with rising regional temperatures and increased long-term precipitation (Long et al. 2014). In California, notable increases in fire activity are predicted. They are driven largely</p>
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			<p>by projected increases in temperature and decreases in snow pack and, to a lesser extent, increased fuel production from carbon dioxide "fertilization" (Flannigan et al. 2000; Lenihan et al. 2003, 2008; Westerling et al. 2011).</p> <p>It is not clear how the increases in fire activity would affect the Sierra Nevada forests (Safford et al. 2012). Increased burn area does not necessarily result in increased proportions of high severity fire (Miller et al. 2012b). The size of high-severity patches may be a particularly important indicator of whether changes constitute a major shift, especially because natural recovery processes such as natural reseeding of conifers may be limited by the distance to live trees (Long et al. 2014; Crotteau et al. 2013). If high-severity proportions and patch sizes of fires are elevated (Miller and Safford 2012), decreased time between successive fires could lead to type conversion or local loss of a particular plant association (Safford et al. 2012). Even if proportions are not elevated but remain similar, this would translate into greater area burned at high severity as total burned area increases (Long et al. 2014).</p> <p>If the proportion of high-severity fire continues to increase in concert with the proportion of area burned, increasing areas of old forest will be lost, emissions will rise, and fewer large diameter conifers – which store the most carbon and play a variety of other keystone ecological roles - will be retained (Miller and Safford 2012; Hurteau and Brooks 2011; National Research Council 2011; North and Hurteau 2011, Lutz et al. 2012). With continuing increases in the extent of high severity fire and high severity patch size, post-fire erosion, stream sedimentation, nutrient cycling, carbon sequestration and natural forest regeneration processes will also be increasingly impacted (Pickett and White 1985; Hobbs and others 1992; Gresswell 1999; Breashears and Allen 2002; Sugihara and others 2006; Allen 2007).</p> <p>No credible evidence exists to support the commenter's claim that the black-backed woodpecker is currently imperiled or is</p>
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			<p>facing a “major threat of extinction”. The most recent published studies on this species (Siegel et al 2015, Roberts et al 2015) made no such claims (see Response to Comments Received After Comment Period 7-1.1 and 7-1.2, comments which were received after the comment period for this project had closed). A 2011 declaration to the Angora Fire litigation (Lefevre 2011) succinctly reviewed the status of this species and after a review of many information sources concluded that the Angora Project would not irreparably harm the species. For many of the same reasons, (the species is stable at the range-wide scale, including in California, and is not listed; large areas within the Eiler Fire will be left unsalvaged; snags will be retained within salvaged units; habitat exists outside of the Eiler Fire area in burned and unburned forested habitats; severe fires in the Sierra Nevada have been increasing (see above), we have come to the same conclusion that the proposed action for the Eiler Fire Salvage and Restoration Project would not result in irreparable harm to this species.</p>
5-7.1	Reference	Odion and Hanson 2013	See response to comment 5.7.
5-8	Comment	<p>8: An EIS is required to analyze the impacts, cumulative effects, and highly uncertain and unknown risks of logging a large percentage of the rarest forest habitat type on the entire Lassen National Forest: complex early seral forest (CESF), resulting from high-intensity fire (75-100% mortality, as determined by www.mtbs.gov fire severity categories) occurring in dense, mature/old conifer forest (CWHR 4M, 4D, 5M, 5D, and 6) that has not been subjected to post-fire logging. CESF is the most biodiverse and wildlife-rich forest habitat type (see our scoping comments and attachments on this), yet due to fire suppression, post-fire logging, and post-fire shrub eradication (through chemical and mechanical means) and tree plantation establishment, it now comprises less than 3% of the Lassen National Forest, even after including the Bald and Eiler fires—see attached CESF map created by JMP. This is especially true in light of the findings of Hanson (2014)—i.e., that a large proportion of forest bird species associated with CESF are declining in the Sierra Nevada whereas no such pattern is evident for birds associated with unburned/low-severity fire areas.</p>	<p>We make no argument against the commenter’s statements as to the value of early seral habitats and burned forest. The agency has for years argued FOR the value of non-coniferous vegetation on the landscape, and have long built into proposed actions objectives to restore understory vegetation and to promote non-coniferous plants on the landscape. This proposed action was built around the recognition of the importance of both burned forest and early seral vegetation. For instance, 1) no salvage treatments or reforestation would occur within the 3,956 acres of Inventoried Roadless Area or Thousand Lakes Wilderness Area, 2) helicopter harvest areas were designed to maintain burned forest habitat within the helicopter harvest units, 3) approximately 549 acres of proposed helicopter units were dropped from the proposed action in order to maintain burned forest black-backed woodpecker habitat, 4) reforestation is proposed on 5,645 acres, representing only 38% of the acres of USFS lands burned by the Eiler fire, 5) reforestation was designed in many</p>

			<p>areas to promote clumped or low-density tree planting to provide and retain early seral growing space within the subsequent plantations, 6) the only reforestation 1,056 acres would be founder stands only, leaving 90-95% of these acres to revegetate on their own, and, 7) the 25% of treatment areas that are to be left in unsalvaged patches within salvaged units would not be reforested in order to maintain approximately 25% of subsequent plantations in openings.</p> <p>The Eiler Fire burned through managed NF lands, as well as a Wilderness Area and an Inventoried Roadless Area. This diversity of land status allowed a full range of actions that together have captured the commenter's concerns. The 3,956 acres of wildfire that burned in the Wilderness and Inventoried Roadless Area will be allowed to revegetate without intervention, as is consistent with the goals and objectives of Wilderness and Roadless Area management. However, on managed NF lands, with the multiple use mandate associated with these managed lands, other management actions were necessary to insure multiple use objectives were met. However, even in these managed lands, treatments were designed where possible to promote many of the commenter's concerns. In addition, recent fire trends (see response to comment 5-7) indicate that an increase in complex early seral forest may be expected within the Region. Therefore the FS feels the proposed action allowed for a full range of responses to the commenter's concerns regarding complex early seral forest, and preparation of an EIS is not required.</p>
5-8.1	Reference	CESF Map (attached)	See response to 5.8.
5-9	Comment	9: An EIS is required to analyze adverse impacts of the highly controversial use of mortality guidelines used to predict mortality of trees, and used to remove large, live trees—including old-growth trees—many of which would otherwise survive and naturally reforest the area with local genetic diversity that is specially adapted to each specific location, through many thousands of years of evolution.	The fire-injured tree marking guidelines for the Eiler Fire are based on published models from the Hood et al. 2010 study (Hood, Sharon M.; Smith, Sheri L.; Cluck, Daniel R. 2010. Predicting mortality for five California conifers following a wildfire. Forest Ecology and Management. 260: 750-762). These well established guidelines are based on the best available science documenting post-fire conifer mortality in California and their use has contributed to the success of

			many post-fire salvage and restoration projects.
5-10	Comment	<p>10: The EA and supporting documents fail to take a hard look at adverse impacts to Black-backed Woodpeckers by improperly minimizing effects of post-fire logging, such as by: a) misleadingly claiming that there are many Black-backed in the northern Rockies and boreal forests of Canada, according to a NatureServe entry that is very outdated and which was created long before it was discovered that the OR/CA population is a genetically distinct subspecies (Pierson et al. 2010); b) noting that the CA Fish and Game Commission refused to list the Black-backed under the CA ESA, but failing to divulge that this was based upon numerous demonstrable inaccuracies or that the Commission is currently being sued for violating the CA ESA on this issue; and c) inadequate analysis of the impacts and cumulative effects of the planned logging in light of the findings of Hanson (2014).</p>	<p>The NatureServe reference and the discussion related to the CA Fish and Game Commission's refusal to list the species under the state Endangered Species Act was used as part of the life history account of this species. While these two documents were not directly utilized in the analysis of potential effects of this project, they are important in that both represent third party evaluations of the species and its status. Both of these evaluations independently arrived at similar conclusions, that the species is not in jeopardy.</p> <p>The Tingley model was used to model the effects of the proposed action and other alternatives. This model was developed by Morgan Tingley of the Institute of Bird Populations. The model combines black-backed woodpecker occupancy probability data with expected black-backed woodpecker density given snag basal area to model the expected woodpecker density on a burned landscape as a continuous surface using the latest available information about black-backed woodpecker habitat needs, as well as the latest data on black-backed woodpecker.</p> <p>A consortium of environmental groups including the John Muir Project, the Center for Biological Diversity, the Blue Mountains Biodiversity Project, and the Biodiversity Conservation Alliance filed a petition (Hanson et al. 2012) to list the Oregon/California and Black Hills (South Dakota) populations of the black-backed woodpecker as Threatened or Endangered under the federal Endangered Species Act. The U.S. Fish and Wildlife Service prepared a 90-day finding indicating that the petitioned action may be warranted based on the information provided by the petitioners listed above; therefore when funds become available, they will initiate a review of the status of the two populations to determine if listing either or both the Oregon Cascades-California population and the Black Hills population as either subspecies or Distinct Population Segments is warranted (Federal Register 2013b). The USFWS has not yet completed their</p>

			<p>status review of the two populations put forth in the petition submitted by the John Muir Project, the Center for Biological Diversity, the Blue Mountains Biodiversity Project, and the Biodiversity Conservation Alliance; therefore, has not confirmed causal factors that may or may not warrant listing this species as threatened or endangered under ESA. Moreover, the IUCN Red List of Threatened Species evaluated the black-backed woodpecker as a species of "Least Concern" in 2012 (http://www.iucnredlist.org/details/22681181/0). IUCN provided justification for this evaluation as follows: "This species has an extremely large range, and hence does not approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence less than 20,000 km² combined with a declining or fluctuating range size, habitat extent/quality, or population size and a small number of locations or severe fragmentation). The population trend appears to be stable, and hence the species does not approach the thresholds for Vulnerable under the population trend criterion (greater than 30 percent decline over ten years or three generations). The population size is extremely large, and hence does not approach the thresholds for Vulnerable under the population size criterion (less than 10,000 mature individuals with a continuing decline estimated to be greater than 10 percent in ten years or three generations, or with a specified population structure). For these reasons the species is evaluated as Least Concern". Under the Nature Serve conservation ranking system, the species has been categorized as secure at the global scale and apparently secure at the national scale. The black-backed woodpecker was evaluated by subject matter experts for the potential inclusion on the Region 5 Forest Service Sensitive Species list (final list updated on July 3, 2013), but the evaluation did not result in adding this species to the Regional Foresters Sensitive Species list.</p> <p>Under any action alternative, there will be more burned forest habitat available for this species compared to the pre-fire condition. The analysis of this project used the best information available at the time of the analysis.</p>
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5-10.1	Reference	Pierson et al. 2010	<p>In comment 5-10, the commenter states that, "...it was discovered that the OR/CA population is a genetically distinct subspecies (Pierson et al. 2010). However a word search for "California" in this paper revealed two references to the state. The first reference to California states that, "They [black-backed woodpeckers] also occupy isolated patches in the Black Hills of South Dakota and regions of Oregon and California, mainly on the east side of the Cascades and Sierra Nevadas". The second states that, "Additionally, it is important to determine if the Oregon population is connected to California or Washington populations when planning management actions that affect populations". This paper does not state, as the commenter avows, that the Oregon/California populations is a genetically distinct subspecies. In fact, no genetic material from black-backed woodpeckers from California were used in this study. The paper does recommend that, "Management actions should strive to maintain forested connectivity between burned patches to maintain these levels of gene flow." Gaps of habitat identified in this paper as representing barriers to black-backed woodpecker movements were "large areas without contiguous forested habitat". This project would not create such a gap, and reforestation efforts on private and USFS lands would hasten the return of forest cover to the footprint of this high-severity fire.</p>
5-10.2	Reference	Hanson 2014	<p>This paper addresses the importance of burned forest habitat to various bird species. The agency does not contest the point regarding the importance of burned forest habitat to a number of different wildlife species that is made in this paper and in many others that were used in preparation for the project. Findings regarding burned forest habitat were recognized and applied within the proposed action for this project and in how treatment areas were located and treatments designed. The proposed action strikes a balance between the USFS's multiple use objectives and habitat considerations.</p> <p>This proposed action was built around the recognition of the</p>

			<p>importance of both burned forest and early seral vegetation. For instance, 1) no salvage treatments or reforestation would occur within the 3,956 acres of Inventoried Roadless Area or Wilderness Area, 2) helicopter harvest areas were designed to maintain burned forest habitat within the helicopter harvest units, 3) approximately 549 acres of proposed helicopter units were dropped from the proposed action in order to maintain burned forest black-backed woodpecker habitat, 4) reforestation is proposed on 5,645 acres, representing only 38% of the acres of USFS lands burned by the Eiler fire, 5) reforestation was designed in many areas to promote clumped or low-density tree planting to provide and retain early seral growing space within the subsequent plantations, 6) the only reforestation 1,056 acres would be founder stands only, leaving 90-95% of these acres to revegetate on their own, and, 7) the 25% of treatment areas that are to be left in unsalvaged patches within salvaged units would not be reforested in order to maintain approximately 25% of subsequent plantations in openings.</p> <p>The Eiler Fire burned through managed NF lands, as well as a Wilderness Area and an Inventoried Roadless Area. This diversity of land status allowed a full range of actions that together have captured the commenter's concerns. The 3,956 acres of wildfire that burned in the Thousand Lakes Wilderness and Inventoried Roadless Areas will be allowed to revegetate without intervention, as is consistent with the goals and objectives of Wilderness and Roadless Area management. However, on managed NF lands, with the multiple use mandate associated with these managed lands, other management actions were necessary to insure multiple use objectives were met. However, even in these managed lands, treatments were designed where possible to promote many of the commenter's concerns. Therefore the agency feels the proposed action allowed for a full range of responses to the commenter's concerns regarding burned forests and complex early seral forest.</p>
5-11	Comment	11: The EA and the fuels report do not adequately disclose the fact that the empirical,	The references from the commenter address some of the

		<p>published scientific data contradict the Forest Service's self-serving modeling exercises that claim post-fire logging will effectively reduce future fire intensity (see, e.g., Donato et al. 2006, Thompson et al. 2007, McGinnis et al. 2010).</p>	<p>effects that salvage harvest can have on fire behavior and fuel loadings. Two of these references also state that any increases in surface fuel loading from salvage harvest can be mitigated by fuels reduction treatments such as prescribed burning or mechanical removal, which are actions proposed in the Eiler Project to reduce surface fuel loads. These studies focused more on short term fire behavior effects in these stands (untreated, treated, planted), but did not look at the long term fire effects, future fire severities, and safety issues that are associated with a high concentration of large logs (standing snags and 1000 hour surface fuels) on the landscape.</p> <p>There have been numerous studies discussing the positive effects of salvage logging, as it relates to fire behavior and fuels reduction. Studies have shown that the initial pulse of elevated surface fuels in logged stands is relatively short-lived as deposition and accumulation of surface fuels from decaying snags causes surface fuel loadings in unlogged stands to exceed those of logged stands within 5 to 10 years after wildfire (Monsanto and Agee 2008; Keyser et al. 2009; Ritchie et al. 2013; Peterson et al. 2015).</p> <p>Studies have shown that there is a strong positive relationship between initial fire severity and severity of a subsequent reburn (e.g. Holden et al. 2010; Thompson and Spies 2010; van Wagtendonk et. al 2012; Parks et al. 2014). The two principal mechanisms identified as being strongly tied to fire severity in the initial fires and the reburn were snag basal area and shrub cover. Results suggest that high to moderate severity fire in an initial fire can lead to an increase in standing snags and shrub vegetation, which in combination with severe fire weather, can promote high severity fire in the subsequent reburn of an area.</p> <p>Fuels management can include reducing the loading of available fuels, lowering fuel flammability, or isolating or breaking up large continuous bodies of fuels (DeBano et al. 1998). Studies have shown that post-fire salvage harvest can</p>
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			reduce future surface woody fuel levels and the threat of high-severity fire in forests that are regenerating following wildfires (Ritchie et al. 2013, Peterson et al. 2015).
5-11.1	Reference	Donato et. al. 2006	<p>Short, one page (one side) paper addressing the effects of logging within the 2002 Biscuit Fire. Post fire logging occurred within the Biscuit Fire and fuels reduction treatments (prescribed burning or mechanical removal) were planned as a follow up treatment. The results from the study showed an increase in the surface fuel loading in logging treatment areas, but also describes the lack of follow up treatments (prescribed burning or mechanical removal) to remove the remaining the surface fuels in these logged areas. <u>The study underscores that, "after logging, mitigation of short-term fire risk is not possible without subsequent fuel reduction treatments."</u> <u>Meaning, this paper supports the idea that fuels reduction treatments are necessary to reduce fire behavior.</u></p> <p>A recent study (Peterson et al. 2015) sampled surface woody fuels within 255 coniferous forest stands that burned with high severity fire in 68 wildfires between 1970 and 2007 in eastern Washington and Oregon. The study suggests that post fire logging can greatly reduce future surface woody fuel levels in forests regenerating following wildfires. By strategically applying and varying post fire logging treatments within landscapes, post fire logging could reduce woody fuels and help reduce threats to human health, property, and ecosystem services from unacceptable future wildfire behavior and effects.</p> <p>The Proposed Action addresses the reduction of surface fuels post salvage harvest, in order to reduce the fire behavior and fire risk throughout the project area. Natural and activity-generated fuels would be broadcast burned or piled mechanically or by hand, and piles burned. Prescribed fire (broadcast burning and pile burning) throughout the project area would reduce the surface fuel loading. Broadcast burning would be used as a site preparation tool to remove surface fuels in some of the areas proposed for reforestation.</p>

			<p>Broadcast burning would also occur in areas proposed for area fuel treatments to remove natural and activity generated surface fuels after mechanical or hand thinning activities and in areas where there is enough surface fuel present to carry a fire. In areas proposed for hazard tree removal, sub-merchantable trees and non-merchantable hazard trees would be felled and left in place, or piled and the piles burned, or broadcast burned depending upon the amount of surface fuel loading present.</p>
5-11.2	Reference	Thompson et. al. 2007	<p>This paper addressed the effects of reburn severity in managed and unmanaged vegetation in a large wildfire area. Results from the study found that areas which burned severely in 1987 tended to reburn at high severity in the 2002 Biscuit Fire. Areas unaffected by the initial fire tended to burn at the lowest severities. Areas that were salvage-logged and planted after the initial fire burned more severely than comparable unmanaged areas, suggesting fuel conditions in conifer plantations can increase fire severity despite removal of large woody fuels. The high densities of planted trees and large component of brush and hardwoods found within some of these plantations creates a layer of continuous and connected fuels that elevate the risk of high severity fire. The study suggests that harvesting fire-killed trees may increase available surface fuels due to tops, branches, and tree bowls falling to the ground, but also states the effects of the surface fuel increase can be mitigated through fuels reduction methods such as broadcast-burning. <u>Reducing connectivity of surface fuels at landscape scales is likely the only way to decrease the size and severity of reburns until vertical diversification and fire resistance is achieved.</u></p> <p>A recent study (Peterson et al. 2015) suggests that “post fire logging, as a fuel reduction treatment, could contribute to long-term restoration objectives in dry coniferous forests by restoring surface fuels to levels more consistent with low and mixed-severity fire regimes. At the stand scale, post-fire logging reduces surface fuels over the longer term, particularly in the large diameter size classes, which should increase</p>

			<p>management options for applying prescribed fire treatments or allowing future wildfires to burn without causing excessive damage to forest vegetation and soils. Post-fire logging prescriptions could also be designed to generate spatial variability in snag densities and fuels within stands, retaining some snags for wildlife habitat while also creating zones with low fuel loadings to limit the extent of future severe fire behavior. At the landscape scale, post-fire logging could be used to increase heterogeneity in maximum potential fuel loadings, reduce synchrony in fuel succession stages among stands, and influence the relative frequency and spatial distribution of future low, moderate, and high severity fire effects in future fires."</p> <p>The Proposed Action addresses the reduction of surface fuels post salvage harvest, in order to reduce the fire behavior and fire risk throughout the project area. Natural and activity-generated fuels would be broadcast burned or piled mechanically or by hand, and piles burned. Prescribed fire (broadcast burning and pile burning) throughout the project area would reduce the surface fuel loading. Broadcast burning would be used as a site preparation tool to remove surface fuels in some of the areas proposed for reforestation. Broadcast burning would also occur in areas proposed for area fuel treatments to remove natural and activity generated surface fuels after mechanical or hand thinning activities and in areas where there is enough surface fuel present to carry a fire. In areas proposed for hazard tree removal, sub-merchantable trees and non-merchantable hazard trees would be felled and left in place, or piled and the piles burned, or broadcast burned depending upon the amount of surface fuel loading present.</p>
5-11.3	Reference	McGinnis et. al. 2010	<p>This paper addresses a study which measured the effects of treatments (logging fire-killed trees, planting of conifers, and killing of shrubs) on live and dead fuel loads and alien species and modeled potential fire behavior and fire effects on regenerating forests. While logging fire-killed trees may increase the total available dead fuel loads in the short term,</p>

			<p>and may also increase the predicted flame lengths in some young burned areas, it does not affect the modeled surface fire behavior in the longer term. Predicted fire behavior from the light logging slash encountered is probably outweighed by the effects of shrub fuels and grasses in these stands. For this reason, logging neither increased nor decreased modeled fire hazards over the long term. Although modeled surface fire behavior was found to be greater in stands dominated by shrubs, compared to low shrub cover conifer plantations, surface fire would still be intense enough to kill most trees, given their small size and low crown heights in the first two decades after planting.</p> <p>A recent study (Peterson et al. 2015) found that post-fire logging altered post-fire fuel succession by (1) greatly accelerating the deposition of surface woody fuels from logged snags (logging residue), (2) reducing peak loadings of large diameter woody fuels, and (3) initiating the woody fuel decay stage earlier (at least for small and medium diameter fuels). As a result, post-fire logging produced a transient pulse of elevated surface woody fuel loadings followed by a much longer period of reduced surface woody fuel loadings, relative to burned stands that were not logged.</p> <p>The period of elevated hazards (from the initial pulse of elevated surface fuels) is also relatively short-lived, as deposition and accumulation of surface fuels from decaying snags causes mean surface fuel loadings in unlogged stands to exceed those in logged stands within 5–10 years after wildfire (Monsanto and Agee, 2008; Keyser et al., 2009; Ritchie et al., 2013; Peterson et al. 2015).</p> <p>The Proposed Action addresses the reduction of surface fuels post salvage harvest, in order to reduce the fire behavior and fire risk throughout the project area. Natural and activity-generated fuels would be broadcast burned or piled mechanically or by hand, and piles burned. Prescribed fire (broadcast burning and pile burning) throughout the project area would reduce the surface fuel loading. Broadcast burning</p>
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			would be used as a site preparation tool to remove surface fuels in some of the areas proposed for reforestation. Broadcast burning would also occur in areas proposed for area fuel treatments to remove natural and activity generated surface fuels after mechanical or hand thinning activities and in areas where there is enough surface fuel present to carry a fire. In areas proposed for hazard tree removal, sub-merchantable trees and non-merchantable hazard trees would be felled and left in place, or piled and the piles burned, or broadcast burned depending upon the amount of surface fuel loading present.
5-12	Comment	12: The EA and specialist reports do not adequately disclose the fact that post-fire logging tends to increase chronic sedimentation and erosion to streams (Wagenbrenner et al. 2015).	<p>While some studies have shown that post-fire logging can increase the risk of sediment delivery to streams, the Eiler project has a very low risk of sedimentation to streams due to the following factors: a lack of streams in the project area where proposed salvage logging and mechanical fuels activities would occur, no connectivity of channels and upland swales within the project area to downstream water bodies, and the implementation of Integrated Design Features (IDFs) and Best Management Practices (BMPs) to mitigate risks.</p> <p>Additionally, a recent study, which was cited in Wagenbrenner et al., 2015 shows that post-fire salvage logging practices can in some cases decrease erosion, reduce hydrophobicity, and improve soil infiltration (James, 2014). This study was conducted in a location with similar geology and climate to that within the Eiler Project, and is located approximately 20 air miles southwest of the project area.</p>
5-12.1	Reference	Wagenbrenner et al. 2015	This study measured post-fire conditions and sediment production for control and salvage logging at four sites in the Rocky Mountains and North Cascades. The study found that overall sediment production was driven by rainfall intensity and amount of bare soil, that the feller-buncher logged sites contributed less sediment than the skidded sites, and also cites the need for additional mitigations, such as placement of additional ground cover on skid trails. IDFs for the Eiler Project include limiting equipment within Riparian conservation

			areas (RCAs) to the use of feller-bunchers and additional ground cover requirements (EA p.26-27). Wagenbrenner et al. 2015 is also cited in the Soils Report (p. 10), and in the Hydrology Report (page 10).
5-13	Comment	13: The EA and specialist reports do not adequately disclose that most studies have found substantial natural post-fire conifer regeneration in large high-intensity fire patches (Donato et al. 2006, Shatford et al. 2007, Crotteau et al. 2013). Moreover, the EA and specialist reports do not adequately disclose the fact that substantial existing natural conifer regeneration is occurring currently in the large high-intensity fire patches—including deep into large patches—as I found on my May 11, 2015 site visit. In the majority of the high-intensity fire areas, I found between 50 and 300 naturally-regenerating conifer seedlings, often dominated by pine, and more are coming up through the ground each day.	<p>Comment noted. The National Forest Management Act (NFMA) sets policy to maintain appropriate forest cover in accordance with forest management, which, as it pertains to post-fire salvage, means to reforest after salvage activities are completed (USDA 2013b). Planting trees is a way to ensure this policy is met in areas where seed sources are lacking and to ensure a diverse multi-species forest becomes established in a timely manner. Conifer seeds are not naturally dispersed long distances so conifer tree planting would ensure that a variety of native conifer tree seedlings would be re-established in severely burned areas. Replanting severely burned areas with ecologically appropriate species would ensure timely replacement of burned conifer forest stands and improve tree species composition.</p> <p>The silviculture report discussed natural regeneration and the need for reforestation using local data to the LNF (page 25): “While natural regeneration closest to seed sources is the most reliable, longer distance regeneration is dependent on favorable seed development, dispersal mechanisms, seed bed receptiveness, and microsite conditions such as aspect, soil moisture, light levels, and presence of competing vegetation. Post-fire regeneration research in the Storrie fire on the Lassen National Forest found the lowest densities of <i>Pinus spp.</i> in the unchanged and high fire severity areas (Crotteau et al. 2013, Crotteau et al. 2014) which may result in an ecosystem type shift. Crotteau et al. (2014) found the lowest overall seedling densities and poorest conifer stocking were observed in the high-severity burned areas. Additionally a study of tree regeneration patterns and shrub dynamics for stand-replacing patches within five recent fires in the northern Sierra Nevada, including the Storrie fire, found that although tree regeneration densities varied considerably, over 50 percent of the sampled stand-replacing patches and</p>

			<p>approximately 80 percent of all plots had no tree regeneration. The percentage of patches and plots without pine regeneration was even higher, 72 percent and 87 percent respectively (Collins et al. 2010)."</p> <p>While the commenter stated they found abundant natural regeneration, they did not provide any geographic information to aid the FS in locating such areas, making field confirmation of such information impossible. On recent visits to the entire Eiler Project area (June 5 & June 8, 2015), very little natural regeneration was seen, and none was seen in high intensity burn areas. The FS was unable to find areas with 50-300 natural seedlings. See Photo Appendix, Part 2, for pictures of conditions that were seen during these site visits.</p>
5-13.1	Reference	Donato et al. 2006	<p>The reference concludes that post-fire management activities 2 years after a fire killed most natural regeneration and may be counterproductive to forest recovery.</p> <p>The reference makes no notation of patch size of high severity burn or spatial location in the Biscuit Fire in Oregon. As stated in the EA (page 4) "Generally, the lower to moderate burn severity effects are found on the outer edges of the fire with an average patch size of 35 acres and the high severity burn effects, which account for the majority of the burned area, are found in the center of the fire with one patch exceeding 17,700 acres, and an average patch size of 214 acres." See response to 5-11.1 on the need for additional fuels reductions in the Eiler project.</p>
5-13.2	Reference	Shatford et al. 2007	<p>This study addresses Conifer regeneration following fires in the Klamath Siskiyou's. Natural regeneration is a viable management tool. It does require a seed source in proximity (this distance may vary depending upon site-specific factors) and the timeline to achieving a fully stocked stand may be extended far beyond what can be achieved with artificial regeneration.</p> <p>The Eiler project is designed to incorporate this regeneration</p>

			strategy in portions of the project on 3,872 acres.
5-13.3	Reference	Crotteau et al. 2013	This paper focused on mixed or moderate severity fires, and prioritizing areas for reforestation versus natural regeneration. The study models confirmed natural seedling densities vary spatially and compositionally across elevation and burn severity. This study showed that natural regeneration was generally abundant, except when a nearby seed source was absent. Areas with high severity burns typically had high levels of brush cover as opposed to conifer regeneration. Approximately 75 percent of the Eiler Fire burned at high severity, and due to the large patch size of the high severity burns, an existing seed source is not present, creating a need for artificial reforestation to maintain appropriate forest cover as per the National Forest Management Act of 1976.
5-14	Comment	<p>14: Finally, an EIS is required to analyze significant new information that has rendered the 2004 Framework forest plan, under which this project is planned, outdated and inaccurate, as discussed below:</p> <p><u>The 2004 Framework Has Been Rendered Inadequate and Obsolete by Significant New Information, and a Supplemental Environmental Impact Statement (SEIS), or a Sierra Nevada-wide Cumulative Effects EIS, Must Be Prepared Before Further Logging Projects May Proceed</u></p> <p>The 2004 Framework forest plan was based upon several key assumptions and conclusions about forest ecology and management that have now been refuted or strongly challenged (and the weight of scientific evidence now indicates a different conclusion) by significant new scientific information, which requires a fundamental reevaluation of the plan under NEPA through a supplemental EIS. These issues are bioregional in nature, and are not particular to the analysis area in the EA; thus, the cumulative effects analysis in the EA cannot adequately analyze the impacts and cumulative effects of these issues, and a Sierra Nevada-wide EIS must be prepared to address this information and its implications for wildlife species that range throughout the Sierra Nevada mountains.</p> <p>In addition, project-level supplementation would be required for any Environmental Assessment or Environmental Impact Statement that is issued pursuant to the 2004 Framework, and that is based upon the Framework's prescriptions and management</p>	<p>The commenters requests that the Eiler Project be withdrawn because it is consistent with the 2004 Sierra Nevada Forest Plan Amendment ("2004 Framework"), which they believes to be inadequate and obsolete. They asserts that a Supplemental Environmental Impact Statement or bioregional EIS must be completed due to new scientific information before further vegetation management projects, such as the Eiler Project, can proceed. This is incorrect for several reasons:</p> <ul style="list-style-type: none"> • The 2004 Framework is not an ongoing, agency action. Therefore, NEPA's supplementation regulations (40 CFR 1502.9(c)) do not apply to the 2004 Framework EIS; nor does NEPA require the agency to prepare a "Sierra Nevada-wide Cumulative Effects EIS," as requested by commenter. • Even though the Forest Service is not required to prepare a supplemental EIS for the 2004 Framework based on new scientific information, the agency is responsible for considering new information at the project level, when such information is relevant to the project being considered. In this way, new

	<p>assumptions/direction, as this project is.</p> <p>Below we describe specific issues in this regard, and identify the key new scientific sources pertaining to each issue. For each issue, we first identify the affected assumption/conclusion from the 2004 Framework, and then list or cite and discuss the new scientific sources that now undermine these assumptions/conclusions. Where we have included the scientific references, we have included annotations (<i>in parentheses, in bold, italicized font following the citation</i>), where necessary, to describe central findings that may not be immediately apparent.</p> <p><u>Issue #1—Fire/Fuel Condition Class</u></p> <p><u>2004 Framework Assumptions/Conclusions:</u></p> <p>The 2004 Framework EIS (p. 28) stated that one of the main purposes of the 2004 Framework was to “chang[e] a substantial acreage from Fuel Condition Class 2 or 3 to Condition Class 1”. Condition Class was described as representing the number of normal fire return intervals that had been missed due to past suppression of fires by government agencies, with higher Condition Classes indicating higher levels of fuel accumulation and higher potential for high-severity fire, or fire patches in which most or all trees are killed (EIS, p. 126).</p> <p>The EIS concluded that, due to fuel accumulation from fire suppression, and resulting Condition Class 2 and 3 areas dominating the landscape, “fires that affect significant portions of the landscape, which once varied considerably in severity, are now almost exclusively high-severity, large, stand-replacing fires.” However, the EIS did not offer any data source to support this statement.</p> <p><u>New Scientific Information:</u></p> <p>The studies empirically investigating this question have consistently found that forest areas that have missed the largest number of fire return intervals in California’s forests are burning predominantly at low/moderate-severity levels, and are not experiencing higher fire severity than areas that have missed fewer fire return intervals:</p> <p>Miller JD, Skinner CN, Safford HD, Knapp EE, Ramirez CM. 2012a. Trends and causes of severity, size, and number of fires in northwestern California, USA. <i>Ecological Applications</i> 22, 184-203.</p> <p>Odion, D.C., E.J. Frost, J.R. Strittholt, H. Jiang, D.A. DellaSala, and M.A. Moritz. 2004.</p>	<p>science is addressed at the time and scale that is most relevant and practical.</p> <ul style="list-style-type: none"> • The Forest Service recognizes that the state of scientific knowledge has changed since the 2004 Framework was issued and that forest plans should strive to remain consistent with the current scientific understandings. However, it is not practical to supplement programmatic EISs and revise LRMPs every time new information arises; doing so would lead to an unending loop of programmatic planning. The National Forest Management Act (NFMA) recognized the need for stability in forest planning, and envisioned that LRMP Revision would only occur every 10-15 years. The 2004 Framework is approximately 10 years old, and the region has begun to revise the LRMPs for the Sierra Nevada National Forests, with the first three plan revisions expected to be completed in 2015. It would be impractical for the agency to prepare a new EIS for the 2004 Framework while the agency is devoting its resources to revising the plans covered by the 2004 Framework through the current LRMP revision process. Until the LRMP revisions are completed for the Sierra Nevada National Forests, new scientific information and changed circumstances can be addressed in the site-specific project context, when the new information or changed circumstances are relevant to the project being considered. • Even if the 2004 Framework EIS were to be supplemented, that does not mean that all projects in the Sierra Nevada would need to cease or that the 2004 Framework decision should be vacated. In 2013, the District Court for the Eastern District of California required that a supplemental EIS be prepared for the 2004 Framework (based on a flaw in the original EIS), but the court did not vacate the 2004 Framework decision or enjoin any activities while the agency prepared the supplemental EIS.
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	<p>Patterns of fire severity and forest conditions in the Klamath Mountains, northwestern California. <i>Conservation Biology</i> 18: 927-936.</p> <p>Odion, D.C., and C.T. Hanson. 2006. Fire severity in conifer forests of the Sierra Nevada, California. <i>Ecosystems</i> 9: 1177-1189.</p> <p>Odion, D.C., and C.T. Hanson. 2008. Fire severity in the Sierra Nevada revisited: conclusions robust to further analysis. <i>Ecosystems</i> 11: 12-15.</p> <p>Odion, D. C., M. A. Moritz, and D. A. DellaSala. 2010. Alternative community states maintained by fire in the Klamath Mountains, USA. <i>Journal of Ecology</i>, doi: 10.1111/j.1365-2745.2009.01597.x.</p> <p>van Wagtenonk, J.W., K.A. van Wagtenonk, and A.E. Thode. 2012. Factors associated with the severity of intersecting fires in Yosemite National Park, California, USA. <i>Fire Ecology</i> 8: 11-32.</p> <p>Below is a more detailed discussion of these studies:</p> <p>Six empirical studies have been conducted in California's forests to assess the longstanding forest management assumption that the most fire-suppressed forests (i.e., the forests that have missed the largest number of fire return intervals) burn "almost exclusively high-severity", as the 2004 Sierra Nevada Forest Plan Amendment Final EIS (Vol. 1, p. 124) presumed. These studies found that the most long-unburned (most fire-suppressed) forests burned mostly at low/moderate-severity, and did not have higher proportions of high-severity fire than less fire-suppressed forests. Forests that were not fire suppressed (those that had not missed fire cycles, i.e., Condition Class 1, or "Fire Return Interval Departure" class 1) generally had levels of high-severity fire similar to, or higher than, those in the most fire-suppressed forests.</p> <p>1) SEE LETTER FOR FIGURE</p> <p>Figure 5 from Odion and Hanson (2006) (<i>Ecosystems</i>), based upon the three largest fires 1999-2005, which comprised most of the total acres of wildland fire in the Sierra Nevada during that time period (using fire severity data from Burned Area Emergency Rehabilitation (BAER) aerial overflight mapping), showing that the most long-unburned, fire-suppressed forests (Condition "Class 3+", corresponding to areas that had missed more than 5 fire return intervals, and generally had not previously burned for about a century or more) experienced predominantly low/moderate-severity fire.</p> <p>2) SEE LETTER FOR FIGURE</p> <p>Figure 1 from Odion and Hanson (2008) (<i>Ecosystems</i>) (using fire severity data from</p>	<p>This demonstrates that a deficiency in the 2004 Framework EIS does not necessarily mean that all project-level activities that are covered by LRMPs amended by the 2004 Framework would need to stop. If the 2004 Framework decision were vacated, the prior programmatic direction for the Sierra Nevada Forests – the 2001 Framework – would take the 2004 Framework's place, and that EIS would be more outdated than the 2004 Framework. To summarize, neither enjoining all vegetation management projects in the Sierra Nevada, nor vacating the 2004 Framework decision would be an appropriate or logical conclusion.</p>
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		<p>satellite imagery for the same three fires analyzed in Odion and Hanson 2006), showing that the most long-unburned, fire-suppressed forests (no fire for a century or more) burned mostly at low/moderate-severity, and had levels of high-severity fire similar to less fire-suppressed forests (in one case, even less than Condition Class 1).</p> <p>3) van Wagtenonk et al. (2012) (<i>Fire Ecology</i>), analyzing 28 fires from 1973-2011 in Yosemite National Park, found the following:</p> <p>“The proportion burned in each fire severity class was not significantly associated with fire return interval departure class...[L]ow severity made up the greatest proportion within all three departure classes, while high severity was the least in each departure class (Figure 4).”</p> <p>The most long-unburned, fire-suppressed forests—those that had missed 4 or more fire return intervals (in most cases, areas that had not burned since at least 1930)—had only about 10% high-severity fire (Fig. 4 of van Wagtenonk et al. 2012).</p> <p>4) Odion et al. (2004) (<i>Conservation Biology</i>), conducted in a 98,814-hectare area burned in 1987 in the California Klamath region, found that the most fire-suppressed forests in this area (areas that had not burned since at least 1920) burned at significantly <i>lower</i> severity levels, likely due to a reduction in combustible native shrubs as forests mature and canopy cover increases:</p> <p>“The hypothesis that fire severity is greater where previous fire has been long absent was refuted by our study...The amount of high-severity fire in long-unburned closed forests was the lowest of any proportion of the landscape and differed from that in the landscape as a whole ($Z = -2.62$, $n = 66$, $p = 0.004$).”</p> <p>5) Odion et al. (2010) (<i>Journal of Ecology</i>), empirically tested the hypothesis articulated in Odion et al. (2004)—i.e., that the <i>reduction</i> in fire severity with increasing time-since-fire was due to a reduction in combustible native shrubs as forests mature and canopy cover increases—and found the data to be consistent with this hypothesis.</p> <p>6) Miller et al. (2012a) (<i>Ecological Applications</i>), analyzing all fires over 400 hectares 1987-2008 in the California Klamath region, found low proportions of high-severity fire (generally 5-13%) in long-unburned forests, and the</p>	
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		<p>proportion of high-severity fire effects in long-unburned forests was either the same as, or <i>lower than</i>, the high-severity fire proportion in more recently burned forests (see Table 3 of Miller et al. 2012a).</p> <p>Recently, Steel et al. (2015) (Ecosphere 6: Article 8) reported modeling results that predicted a modest increase in fire severity with increasing time since fire (e.g., 12% high-severity fire at 10 years after fire up to 20% high-severity fire at 75 years post-fire). Thus, even the most long-unburned forests (>75 years since the last fire) were predicted to have mostly low/moderate-severity fire effects, contrary to the assumption upon which the 2004 Framework was based. Moreover, even the modest predicted increase in fire severity reported by Steel et al. (2015) must be viewed with great caution in light of the fact that it was based upon almost no data for mixed-conifer stands that had experienced fire less than 75 years previously (see Fig. 4 of Steel et al. 2015).</p> <p><u>Issue #2—“Ecological Collapse” Due to High-intensity Fire</u></p> <p><u>2004 Framework Assumptions/Conclusions:</u></p> <p>With regard to the effects of wildland fire in Condition Class 2 and 3 areas, the 2004 Framework EIS made the following conclusion:</p> <p>“Condition Classes 2 and 3 are the targets for treatment. Condition Class 2 is composed of lands where fire regimes have been altered from their historic ranges, creating a moderate risk of losing key ecosystem components as a result of wildfire. The vegetative composition, structure, and diversity of lands in Condition Class 3 have been significantly altered due to multiple missing fire return intervals. These lands verge on the greatest <i>risk of ecological collapse</i>.”</p> <p>2004 Framework EIS, p. 126 (emphasis added). The EIS did not cite to any scientific source to support this statement. The EIS (p. 126) stated that approximately 4 million acres of forest were in Condition Class 2, and about 3 million acres were in Condition Class 3.</p> <p><u>New Scientific Information:</u></p> <p>High-intensity fire patches, including large patches, in large fires are natural in Sierra Nevada mixed-conifer forests, and create very biodiverse, ecologically important, and unique habitat (often called “snag forest habitat”), which often has higher species</p>	
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		<p>richness and diversity than unburned old forest. Natural conifer forest regeneration occurs following high-intensity fire. Miller et al. (2012b) found that the current high-intensity fire rotation in Sierra Nevada montane conifer forests is 801 years; thus, within any 20-year period, for instance, only about 2.5% of the landscape is snag forest habitat <i>even if</i> none of it is subjected to post-fire salvage logging and artificial replanting. In contrast, the old-growth stands dominated by the largest trees, and multi-level canopy cover, CWHR class 6, comprise 1,120,000 acres—more than 10% of the forested area in the Sierra Nevada (2001 Sierra Nevada Forest Plan Amendment Final EIS, Table 4.4.2.1f). Historical mixed-conifer forests were frequently dominated by white fir and incense-cedar, and often had dense understories.</p> <p>Baker, W.L. 2014. Historical forest structure and fire in Sierran mixed-conifer forests reconstructed from General Land Office survey data. <i>Ecosphere</i> 5: Article 79. <i>(Using an enormous U.S. government field survey data set from the 1800s, it was determined that historical ponderosa pine and mixed-conifer forests of the Sierra Nevada were much denser than previously assumed, and were dominated by mixed-intensity fire, while 13-26% were open forests with low-intensity fire. These forests were highly variable in species composition too, historically, with many areas dominated by fir/cedar forests, and others dominated by pine, but with substantial fir/cedar components. High-intensity fire comprised 31-39% of fire effects historically, and high-intensity fire patches hundreds of acres in size were common, with some high-intensity fire patches reaching over 20,000 acres in size. High-intensity fire in historical forests occurred on average about every three centuries, which is much more frequent than the rate of high-intensity fire in these forests currently. Moreover, high-intensity fires occurred, in any given area, about once every 281-354 years—much more frequently than current rates).</i></p> <p>Bekker, M. F. and Taylor, A. H. 2010. Fire disturbance, forest structure, and stand dynamics in montane forest of the southern Cascades, Thousand Lakes Wilderness, California, USA. <i>Ecoscience</i> 17: 59-72. <i>(In mixed-conifer forests of the southern Cascades in the Sierra Nevada management region, reconstructed fire severity within the study area was dominated by high-severity fire effects, including high-severity fire patches over 2,000 acres in size [Tables I and II]).</i></p> <p>Buchalski, M.R., J.B. Fontaine, P.A. Heady III, J.P. Hayes, and W.F. Frick. 2013. Bat response to differing fire severity in mixed-conifer forest, California, USA. <i>PLOS ONE</i> 8: e57884. <i>(In mixed-conifer forests of the southern Sierra Nevada, rare</i></p>	
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		<p><i>myotis bats were found at greater levels in unmanaged high-severity fire areas of the McNally fire than in lower fire severity areas or unburned forest.)</i></p> <p>Burnett, R.D., P. Taillie, and N. Seavy. 2010. Plumas Lassen Study 2009 Annual Report. U.S. Forest Service, Pacific Southwest Region, Vallejo, CA. <i>(Bird species richness was approximately the same between high-severity fire areas and unburned mature/old forest at 8 years post-fire in the Storrie fire, and total bird abundance was greatest in the high-severity fire areas of the Storrie fire [Figure 4]. Nest density of cavity-nesting species increased with higher proportions of high-severity fire, and was highest at 100% [Figure 8]. The authors noted that “[o]nce the amount of the plot that was high severity was over 60% the density of cavity nests increased substantially”, and concluded that “more total species were detected in the Moonlight fire which covers a much smaller geographic area and had far fewer sampling locations than the [unburned] green forest.”)</i></p> <p>Cocking MI, Varner JM, Knapp EE. 2014. Long-term effects of fire severity on oak-conifer dynamics in the southern Cascades. <i>Ecological Applications</i> 24: 94-107. <i>(High-intensity fire areas are vitally important to maintain and restore black oaks in mixed-conifer forests.)</i></p> <p>Crotteau JS, Varner JM, Ritchie M. 2013. Post-fire regeneration across a fire severity gradient in the southern Cascades. <i>Forest Ecology and Management</i> 287: 103-112. <i>(The authors found 710 conifer seedlings/saplings per hectare naturally regenerating in large high-severity fire patches. And, while Collins and Roller (2013) reported relatively little natural conifer regeneration in many high-severity fire areas, this is misleading in light of the fact that nearly half of the area surveyed had been subjected to intensive post-fire logging, which damages soils and removes or destroys natural seed sources, and most of the other areas had been clearcut prior to the fires (which we discovered using pre-fire remote sensing data), or were naturally non-conifer forest, e.g., black oak. The results of Collins et al. (2010 [Table 5]), who found and reported substantial natural conifer regeneration—especially ponderosa/Jeffrey pine and sugar pine—in high-intensity fire patches, excluded salvage logged areas, unlike Collins and Roller (2013). Collins et al. (2010) state that “some areas within each of these fires experienced post-fire management, ranging from post fire salvage logging, tree release and weed management. These areas were removed from analysis.” (emphasis added). Specifically, Collins et al. (2010 [Table 5]) found 158 ponderosa pine and</i></p>	
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		<p><i>sugar pine conifers per acre regenerating in high-intensity fire patches in the Storrie fire—68% of the total natural conifer regeneration by species. Extensive natural conifer regeneration surveys deeper into the Storrie fire, at seven years post-fire, revealed abundant natural conifer regeneration, especially pine (Hanson 2007b [Tables 1 through 4, and Appendix A]). In addition, over 95% of the conifer regeneration in Collins et al. (2010) and Collins and Roller (2013) was under 0.1 cm in diameter at breast height (Collins et al. 2010); the plots used to determine the density of conifers of this size covered only 9 square meters of area per plot, and many high-intensity fire patches in the study only had 3-5 plots for an entire high-intensity fire patch (Collins and Roller 2013). This means that, even if 200-300 naturally-regenerating conifers per hectare actually existed in a given high-intensity fire patch, the methods used by Collins and Roller (2013) would be very unlikely to detect conifers, as a matter of basic math and probability.)</i></p> <p>DellaSala, D.A., M.L. Bond, C.T. Hanson, R.L. Hutto, and D.C. Odion. 2014. Complex early seral forests of the Sierra Nevada: what are they and how can they be managed for ecological integrity? <i>Natural Areas Journal</i> 34: 310-324. <i>(High-intensity fire creates a post-fire habitat that is one of the rarest, most biodiverse, and most threatened of all forest habitat types: “complex early seral forest” (CESF). The authors recommend monitoring and conservation programs to recover and maintain this ecologically-vital habitat on the landscape.)</i></p> <p>Donato, D.C., J.B. Fontaine, W.D. Robinson, J.B. Kauffman, and B.E. Law. 2009. Vegetation response to a short interval between high-severity wildfires in a mixed-evergreen forest. <i>Journal of Ecology</i> 97: 142-154. <i>(The high-severity re-burn [high-severity fire occurring 15 years after a previous high-severity fire] had the highest plant species richness and total plant cover, relative to high-severity fire alone [no re-burn] and unburned mature/old forest; and the high-severity fire re-burn area had over 1,000 seedlings/saplings per hectare of natural conifer regeneration.)</i></p> <p>Hanson, C.T. 2014. Conservation concerns for Sierra Nevada birds associated with high-severity fire. <i>Western Birds</i> 45: 204-212. <i>(A significantly greater proportion of forest birds associated with the habitat created by high-severity fire are experiencing population declines relative to forest birds associated with unburned forest in the Sierra Nevada.)</i></p>	
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		<p>USA. J. Torrey Bot. Soc.132: 442-457. <i>(The authors found that large high-severity fire patches were a natural part of 19th century fire regimes in mixed-conifer and eastside pine forests of the Lake Tahoe Basin, and montane chaparral created by high-severity fire has declined by 62% since the 19th century due to reduced high-severity fire occurrence. The authors expressed concern about harm to biodiversity due to loss of ecologically rich montane chaparral.)</i></p> <p>Odion D.C., Hanson C.T., Arsenault A., Baker W.L., DellaSala D.A., Hutto R.L., Klenner W., Moritz M.A., Sherriff R.L., Veblen T.T., Williams M.A. 2014. Examining historical and current mixed-severity fire regimes in ponderosa pine and mixed-conifer forests of western North America. PLoS ONE 9: e87852. <i>(In the largest and most comprehensive analysis ever conducted regarding the historical occurrence of high-intensity fire, the authors found that ponderosa pine and mixed-conifer forests in every region of western North America had mixed-intensity fire regimes, which included substantial occurrence of high-intensity fire. The authors also found, using multiple lines of evidence, including over a hundred historical sources and fire history reconstructions, and an extensive forest age-class analysis, that we now have unnaturally low levels of high-intensity fire in these forest types in all regions, since the beginning of fire suppression policies in the early 20th century.)</i></p> <p>Powers, E.M., J.D. Marshall, J. Zhang, and L. Wei. 2013. Post-fire management regimes affect carbon sequestration and storage in a Sierra Nevada mixed conifer forest. Forest Ecology and Management 291: 268-277. <i>(In Sierra Nevada mixed conifer forests, the highest total aboveground carbon storage was found to occur in mature/old forest that experienced 100% tree mortality in wildland fire, and was not salvage logged or artificially replanted, relative to lightly burned old forest and salvage logged areas [Fig. 1b]).</i></p> <p>Shatford, J.P.A., D.E. Hibbs, and K.J. Puettmann. 2007. Conifer regeneration after forest fire in the Klamath-Siskiyou: how much, how soon? Journal of Forestry April/May 2007, pp. 139-146.</p> <p>Siegel, R.B., M.W. Tingley, and R.L. Wilkerson. 2011. Black-backed Woodpecker MIS surveys on Sierra Nevada national forests: 2010 Annual Report. A report in fulfillment of U.S. Forest Service Agreement No. 08-CS-11052005-201, Modification #2; U.S. Forest</p>	
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		<p>Service Pacific Southwest Region, Vallejo, CA. (<i>“Many more species occur at high burn severity sites starting several years post-fire, however, and these include the majority of ground and shrub nesters as well as many cavity nesters. Secondary cavity nesters, such as swallows, bluebirds, and wrens, are particularly associated with severe burns, but only after nest cavities have been created, presumably by the pioneering cavity excavating species such as the Black-backed Woodpecker. Consequently, fires that create preferred conditions for Black-backed Woodpeckers in the early post-fire years will likely result in increased nesting sites for secondary cavity nesters in successive years.”</i>)</p> <p>Swanson, M.E., J.F. Franklin, R.L. Beschta, C.M. Crisafulli, D.A. DellaSala, R.L. Hutto, D. Lindenmayer, and F.J. Swanson. 2010. The forgotten stage of forest succession: early-successional ecosystems on forest sites. <i>Frontiers Ecology & Environment</i> 2010; doi:10.1890/090157. (<i>A literature review concluding that some of the highest levels of native biodiversity found in temperate conifer forest types occur in complex early successional habitat created by stand-initiating [high severity] fire.</i>)</p> <p>USFS (United States Forest Service). 1910-1912. Timber Survey Field Notes, 1910-1912, U.S.Forest Service, Stanislaus National Forest. Record Number 095-93-045, National Archives and Records Administration—Pacific Region, San Bruno, California, USA. (<i>Surveys were conducted within unlogged forest to evaluate timber production potential in 16.2-ha (40-acre) plots within each 259.1-ha (640-acre) section in ponderosa pine and mixed-conifer forest on the westside of the Stanislaus National Forest, using one or more 1.62-ha transect per plot. Surveyors noted that surveys for individual tree size, density and species were not conducted in areas that had experienced high-severity fire sufficiently recently such that the regenerating areas did not yet contain significant merchantable sawtimber. Surveyors noted that the dominant vegetation cover across the majority of many 259.1-ha sections was montane chaparral and young conifer regeneration following high-severity fire. For example (from a typical township in the data set): a) T1S, R18E, Section 9 (“Severe fire went through [this section] years ago and killed most of the trees and land was reverted to brush”, noting “several large dense sapling stands” and noting that merchantable timber existed on only four of sixteen 16.2-ha plots in the section); b) T1S, R18E, Section 14 (“Fires have killed most of timber and most of section has reverted to brush”); c) T1S, R18E, Section 15 (same); d) T1S, R18E, Section 23 (“Most of timber on section has been killed by fires which occurred many years ago”); T1S, R18E, Section 21 (“Old fires killed most of timber on this section and most of area is now brushland”. Moreover, with regard to understory density, the USFS 1911</i></p>	
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		<p><i>Stanislaus data set (USFS 1910-1912) recorded average sapling density on 72 ponderosa pine forest sections (and some mixed-conifer) (each section one square mile in size), with an average density of 102 saplings per acre (252 per hectare) in sections noted as having no previous logging. This is not consistent with the assumption of very low densities of saplings historically. In addition, the 1911 Stanislaus data set also recorded percent shrub cover on 57 sections (each one square mile) in ponderosa pine forests (and some mixed-conifer), with an average of 28% shrub cover in unlogged sections within forested areas with merchantable timber. In a total of 35 sections, surveyors recorded the proportion of the one-square-mile section comprised by montane chaparral areas (which often included natural conifer regeneration in the seedling, sapling, and/or pole-sized successional stage) with no merchantable timber. These montane chaparral areas represented 12,200 acres out of a total of 22,400 acres, or about 54%. As discussed above, in many of these montane chaparral areas, the visible signs of past high-severity fire were still evident, and surveyors specifically recorded large high-severity fire patches. The total area covered by the surveys was vastly larger than the small subset analyzed in Scholl and Taylor 2010 and Collins et al. 2011.) (This report constitutes new information under NEPA because it was not discovered/revealed until recently).</i></p> <p><u>Issue #3—Spotted Owl PACs “Lost” Due to High-Intensity Fire</u></p> <p><u>2004 Framework Assumptions/Conclusions:</u></p> <p>The 2004 Framework FEIS (p. 143-144) claimed that 4.5 California spotted owl Protected Activity Centers (PACs) were “lost” to higher-intensity fire since 1999 (providing a list of the 18 PACs), and claimed that an average of 4.5 PACs were being “lost” to fire each year. The 2004 Framework Record of Decision (ROD), on page 6, echoed this claim about losses of spotted owls to fire, and concluded that increased logging intensity was necessary in order to combat the threat of fire: “[G]iven that valuable [spotted owl] habitat is at high risk of being lost to wildfire, I cannot conclude that maintaining higher levels of canopy closure and stand density everywhere is the right thing to do.”</p> <p><u>New Scientific Information:</u></p> <p>On August 1, 2004, the Associated Press published two investigative news stories on this claim of “lost” PACs, and found that: a) these PACs were generally still occupied by spotted owls; and b) the lead U.S. Forest Service wildlife biologist had been</p>	
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		<p>countermanded when he informed the Forest Service that the assertions about owl PACs being lost to fire were inaccurate (see attached news stories). Further, in 2009, scientists discovered, in a radiotelemetry study, that, while California spotted owls choose unburned or low/moderate-severity fire areas for nesting and roosting, the owls <i>preferentially select</i> high-severity fire areas (that have not been salvage logged) for foraging (Bond et al. 2009). Roberts (2008) found that spotted owl reproduction rates were 60% higher in mixed-severity fire areas (not salvage logged) than in unburned forest. Moreover, Lee et al. (2012) found that mixed-severity wildland fire (with an average of 32% high-severity fire effects) does not reduce California spotted owl occupancy in Sierra Nevada forests (indeed, a number of the PACs that the 2004 Framework FEIS claimed to be “lost” remain occupied), but post-fire logging appears to reduce spotted owl occupancy considerably. Moreover, new science concludes that logging within the home range of spotted owls reduces occupancy.</p> <p>Bond, M. L., D. E. Lee, R. B. Siegel, & J. P. Ward, Jr. 2009a. Habitat use and selection by California Spotted Owls in a postfire landscape. <i>Journal of Wildlife Management</i> 73: 1116-1124. <i>(In a radiotelemetry study, California spotted owls preferentially selected high-severity fire areas, which had not been salvage logged, for foraging.)</i></p> <p>Bond, M.L., D.E. Lee, R.B. Siegel, and M.W. Tingley. 2013. Diet and home-range size of California spotted owls in a burned forest. <i>Western Birds</i> 44: 114-126 <i>(Home range size of spotted owls in the McNally fire was similar to, or smaller than, home ranges in unburned forests in the Sierra Nevada, indicating high territory fitness in post-fire habitat; owls in burned forest had a diet rich in small mammals, including pocket gophers.)</i></p> <p>Ganey, J.L., S.C. Kyle, T.A. Rawlinson, D.L. Apprill, and J.P. Ward, Jr. 2014. Relative abundance of small mammals in nest core areas and burned wintering areas of Mexican spotted owls in the Sacramento Mountains, New Mexico. <i>The Wilson Journal of Ornithology</i> 126: 47-52. <i>(Mexican spotted owls tended to leave unburned old forest nest cores, traveling up to 14 kilometers to spend the winter in mixed-intensity fire areas, where the small mammal prey base was 2 to 6 times greater than in the unburned old forest nest cores).</i></p> <p>Lee, D.E., and M.L. Bond. 2015. Occupancy of California spotted owl sites following a large fire in the Sierra Nevada, California. <i>The Condor</i> 117 (in press). <i>(California spotted owl occupancy in the large (approximately 257,000 acres), intense</i></p>	
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		<p><i>Rim fire of 2013, at one year post-fire—before logging—was 92%, which is substantially higher than average annual occupancy in unburned mature/old forest, and pair occupancy was not reduced even when most of the territory experienced high-intensity fire).</i></p> <p>Lee, D.E., M.L. Bond, and R.B. Siegel. 2012. Dynamics of breeding-season site occupancy of the California spotted owl in burned forests. <i>The Condor</i> 114: 792-802. <i>(Mixed-severity wildland fire, averaging 32% high-severity fire effects, did not decrease California spotted owl territory occupancy, and probability of territory extinction was lower in mixed-severity fire areas than in unburned mature/old forest. Post-fire salvage logging largely eliminated occupancy in areas that were occupied by owls after mixed-severity fire, but before salvage logging.)</i></p> <p>Moors, A. 2012&2013. Occupancy and reproductive success of Mexican spotted owls in the Chiricahua Mountains. Annual reports to the Coronado National Forest, Arizona for 2012 and 2013 field seasons. <i>(After a 223,000-acre fire, Mexican spotted owl occupancy increased. Reproduction also increased, particularly in the territories that had the highest levels of high-intensity fire).</i></p> <p>Roberts, S.L. 2008. The effects of fire on California spotted owls and their mammalian prey in the central Sierra Nevada, California. Ph.D. Dissertation, University of California at Davis. <i>(California spotted owl reproduction was 60% higher in a mixed-severity fire area [no salvage logging] than in unburned mature/old forest.)</i></p> <p>Seamans, M.E., and R.J. Gutiérrez. 2007. Habitat selection in a changing environment: the relationship between habitat alteration and spotted owl territory occupancy and breeding dispersal. <i>The Condor</i> 109: 566-576. <i>(The authors found that commercial logging of as little as 20 hectares, or about 50 acres, in spotted owl home ranges significantly reduced occupancy.)</i></p> <p><u>Issue #4—Spotted Owl Population Trend</u></p> <p><u>2004 Framework Assumptions/Conclusions:</u></p> <p>The 2004 Framework FEIS (pp. 141-142) stated that, using the most current methods, at that time, of determining California spotted owl population trend, the data indicate “a</p>	
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		<p>stable population” for all of the Sierra Nevada spotted owl study areas. On December 23, 2014, ecologists Monica Bond and Chad Hanson submitted a Petition to U.S. Fish and Wildlife Service to list the California spotted owl under the Endangered Species Act due to threats from commercial thinning and post-fire logging on both private and National Forest lands http://www.wildnatureinstitute.org/uploads/5/5/7/7/5577192/cso_fesa_petition_dec_22_2014.pdf.</p> <p><u><i>New Scientific Information:</i></u></p> <p>Conner, M.M., J.J. Keane, C.V. Gallagher, G. Jehle, T.E. Munton, P.A. Shaklee, and R.A. Gerrard. 2013. Realized population change for long-term monitoring: California spotted owl case study. <i>Journal of Wildlife Management</i> 77: 1449-1458. <i>(Using a more robust statistical analysis approach than the methods used previously, the authors found that California spotted owl populations are, and have been, declining in the Sierra Nevada, based upon results from the Lassen, Sierra, and Sequoia/Kings-Canyon study areas. The Sequoia/Kings-Canyon study area was the only one with an upward population trajectory, and is the only study area in protected forests, with an active mixed-intensity fire regime, and no mechanical thinning or post-fire salvage logging. The USFS study areas (Lassen and Sierra) have had extensive fire suppression, mechanical thinning, and post-fire logging.)</i></p> <p>Stephens, S.L., S.W. Bigelow, R.D. Burnett, B.M. Collins, C.V. Gallagher, J. Keane, D.A. Kelt, M.P. North, L.J. Roberts, P.A. Stine, and D.H. Van Vuren. 2014. California Spotted Owl, songbird, and small mammal responses to landscape fuel treatments. <i>BioScience</i> (in press). <i>(Areas logged through mechanical thinning and group selection on national forest lands in the northern Sierra Nevada experienced an alarming 43% decline in California spotted owl populations within just a few years).</i></p> <p>Tempel, DJ. 2014. California spotted owl population dynamics in the central Sierra Nevada: an assessment using multiple types of data. PhD Dissertation, University of Minnesota, St. Paul, MN.</p> <p>Tempel, D.J., and R.J. Gutiérrez. 2013. Relation between occupancy and abundance for a territorial species, the California spotted owl. <i>Conservation Biology</i> 27: 1087-1095. <i>(In the remaining Sierra Nevada study area for the California spotted owl—the Eldorado study area—the authors found that spotted owl territories have been, and are, declining significantly. This study area is characterized by extensive fire suppression, mechanical thinning, and post-fire logging.)</i></p>	
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		<p>Populations, Point Reyes Station, California, For: U.S. Forest Service, Pacific Southwest Region, Vallejo, CA. <i>(Conservation recommendations include: a) identify the areas of the highest densities of larger snags after fire, and do not salvage log such areas (Recommendation 1.1); b) in areas where post-fire salvage logging does occur, do not create salvage logging patches larger than 2.5 hectares in order to maintain some habitat connectivity and reduce adverse impacts on occupancy (Recommendation 1.3); c) maintain dense, mature forest conditions in unburned forests adjacent to recent fire areas in order to facilitate additional snag recruitment (from beetles radiating outward from the fire) several years post-fire, which can increase the longevity of Black-backed Woodpecker occupancy in fire areas (Recommendation 1.4); d) do not conduct post-fire salvage logging during nesting season, May 1 through July 31 (Recommendation 1.5); and e) maintain dense, mature/old unburned forests in order to facilitate high quality Black-backed Woodpecker habitat when such areas experience wildland fire (Recommendation 3.1).</i></p> <p>Burnett, R.D., P. Taillie, and N. Seavy. 2011. Plumas Lassen Study 2010 Annual Report. U.S. Forest Service, Pacific Southwest Region, Vallejo, CA. <i>(Black-backed Woodpecker nesting was eliminated by post-fire salvage. See Figure 11 [showing nest density on national forest lands not yet subjected to salvage logging versus private lands that had been salvage logged.]</i></p> <p>Burnett, R.D., M. Preston, and N. Seavy. 2012. Plumas Lassen Study 2011 Annual Report. U.S. Forest Service, Pacific Southwest Region, Vallejo, CA. <i>(Black-backed Woodpecker potential occupancy rapidly approaches zero when less than 40-80 snags per acre occur, or are retained (Burnett et al. 2012, Fig. 8 [occupancy dropping towards zero when there are fewer than 4-8 snags per 11.3-meter radius plot—i.e., less than 4-8 snags per 1/10th-acre, or less than 40-80 snags per acre.]</i></p> <p>Hanson, C. T. and M. P. North. 2008. Postfire woodpecker foraging in salvage-logged and unlogged forests of the Sierra Nevada. Condor 110: 777–782. <i>(Black-backed Woodpeckers selected dense, old forests that experienced high-severity fire, and avoided salvage logged areas [see Tables 1 and 2].)</i></p> <p>Hutto, R. L. 2008. The ecological importance of severe wildfires: Some like it hot. Ecological Applications 18:1827–1834. <i>(Figure 4a, showing about 50% loss of Black-backed Woodpecker post-fire occupancy due to moderate pre-fire logging [consistent with mechanical thinning] in areas that later experienced wildland fire.)</i></p>	
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		<p><i>declining populations of Black-backed Woodpeckers (with the exception of a tiny percentage of beetle-kill areas). The study shows that unburned beetle-kill forests do not support viable populations, but very high snag-density beetle-kill areas tend to slow the population decline of Black-backed Woodpeckers in between occurrences of wildland fire. Population decline rates are alarmingly fast in low-intensity prescribed burn areas, indicating that such areas do not provide suitable habitat. Black-backed Woodpeckers are highly specialized and adapted to prey upon wood-boring beetle larvae found predominantly in recent higher-severity wildland fire areas. Moreover, while Black-backed Woodpeckers are naturally camouflaged against the charred bark of fire-killed trees, they are more conspicuous in unburned forests, or low-severity burned forests, and are much more vulnerable to predation by raptors in such areas. For this reason, even when a Black-backed Woodpecker pair does successfully reproduce in unburned forest or low-severity fire areas, both juveniles and adults have much lower survival rates than in higher-severity wildland fire areas.)</i></p> <p>Saab, V.A., R.E. Russell, and J.G. Dudley. 2009. Nest-site selection by cavity-nesting birds in relation to postfire salvage logging. <i>Forest Ecology and Management</i> 257: 151–159. <i>(Black backed Woodpeckers select areas with about 325 medium and large snags per hectare [about 132 per acre], and nest-site occupancy potential dropped to near zero when snag density was below about 270 per hectare, or about 109 per acre [see Fig. 2A, showing 270 snags per hectare as the lower boundary of the 95% confidence interval].)</i></p> <p>Seavy, N.E., R.D. Burnett, and P.J. Taille. 2012. Black-backed woodpecker nest-tree preference in burned forests of the Sierra Nevada, California. <i>Wildlife Society Bulletin</i> 36: 722-728. <i>(Black-backed Woodpeckers selected sites with an average of 13.3 snags per 11.3-meter radius plot [i.e., 0.1-acre plot], or about 133 snags per acre.)</i></p> <p>Siegel, R.B., M.W. Tingley, and R.L. Wilkerson. 2011. Black-backed Woodpecker MIS surveys on Sierra Nevada national forests: 2010 Annual Report. A report in fulfillment of U.S. Forest Service Agreement No. 08-CS-11052005-201, Modification #2; U.S. Forest Service Pacific Southwest Region, Vallejo, CA. <i>(Black-backed woodpecker occupancy declines dramatically by 5-7 years post-fire relative to 1-2 years post-fire, and approaches zero by 10 years post-fire [Fig. 15a].)</i></p> <p>Siegel, R.B., M.W. Tingley, R.L. Wilkerson, M.L. Bond, and C.A. Howell. 2013. Assessing home range size and habitat needs of Black-backed Woodpeckers in</p>	
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		<p>California: Report for the 2011 and 2012 field seasons. Institute for Bird Populations. <i>(Black-backed woodpeckers strongly select large patches of higher-severity fire with high densities of medium and large snags, generally at least 100 to 200 hectares (roughly 250 to 500 acres) per pair, and post-fire salvage logging eliminates Black-backed woodpecker foraging habitat [see Fig. 13, showing almost complete avoidance of salvage logged areas]. Suitable foraging habitat was found to have more than 17-20 square meters per hectare of recent snag basal area [pp. 45, 68-70], and suitable nesting habitat was found to average 43 square meters per hectare of recent snag basal area and range from 18 to 85 square meters to hectare [p. 59, Table 13]. Moreover, Appendix 2, Fig. 2 indicates that the Sierra Nevada population of Black-backed Woodpeckers is genetically distinct from the Oregon Cascades population, though additional work needs to be conducted to determine just how distinct the two populations are. Siegel et al. 2013 also found that the small number of Black-backed Woodpeckers with mostly unburned forest home ranges had home ranges far larger than those in burned forest, and that the birds in unburned forest were traveling more than twice as far as those in burned forest in order to obtain lesser food than those in burned forests, indicating that such areas do not represent suitable, viable habitat for this species.)</i></p> <p>Tarbill, G.L. 2010. Nest site selection and influence of woodpeckers on recovery in a burned forest of the Sierra Nevada. Master's Thesis, California State University, Sacramento. <i>(In post-fire eastside pine and mixed-conifer forests of the northern Sierra Nevada, Black-backed woodpeckers strongly selected stands with very high densities of medium and large snags, with well over 200 such snags per hectare on average at nest sites [Table 2], and nesting potential was optimized at 250 or more per hectare, dropping to very low levels below 100 to 200 per hectare [Fig. 5b].)</i></p> <p>USFWS. 2013. 90-day Finding on a Petition to List Two Populations of Black-backed Woodpecker as Threatened or Endangered. U.S. Fish and Wildlife Service, Washington, D.C., April 9, 2013. <i>(USFWS (2013), on page 14, "conclude[d] that the information provided in the petition or in our files present substantial scientific or commercial information indicating that the petitioned action may be warranted for the Oregon Cascades-California and Black Hills populations of the black-backed woodpecker due to the present or threatened destruction, modification, or curtailment of the populations' habitat or range as a result of salvage logging, tree thinning, and fire suppression activities throughout their respective ranges."</i></p>	
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	<p><i>unaffected by salvage logging] from several large fires occurring since 2000, including the Manter fire of 2000 and the McNally fire of 2002. The baited track-plate stations used for the study included these fire areas [Fig. 2]. Mean annual fisher occupancy at detection stations was lower on Sierra National Forest than on the Kern Plateau. Occupancy was trending downward on Sierra National Forest, and upward on the Kern Plateau, though neither was statistically significant, possibly due to a small data set.)</i></p> <p><u>Issue #7: Fire Intensity Trend</u></p> <p><i>2004 Framework Assumptions/Conclusions:</i></p> <p>The 2004 Framework FEIS (p. 125) assumed that fire severity/intensity is increasing in Sierra Nevada forests.</p> <p><i>New Scientific Information:</i></p> <p>Collins, B.M., J.D. Miller, A.E. Thode, M. Kelly, J.W. van Wagtendonk, and S.L. Stephens. 2009. Interactions among wildland fires in a long-established Sierra Nevada natural fire area. <i>Ecosystems</i> 12:114–128. <i>(No increase in high-severity fire found in the study area within Yosemite National Park.)</i></p> <p>Crimmins, S.L., et al. 2011. Changes in climatic water balance drive downhill shifts in plant species' optimum elevations. <i>Science</i> 331:324-327. <i>(Precipitation was found to be increasing [Figs. 2A and S1-C].)</i></p> <p>Dillon, G.K., et al. 2011. Both topography and climate affected forest and woodland burn severity in two regions of the western US, 1984 to 2006. <i>Ecosphere</i> 2:Article 130. <i>(No increase in fire severity was found in most forested regions of the western U.S., including no increasing trend of fire severity in forests of the Pacific Northwest and Inland Northwest, which extended into the northern portion of the Sierra Nevada management region.)</i></p> <p>Hanson, C.T., D.C. Odion, D.A. DellaSala, and W.L. Baker. 2009. Overestimation of fire risk in the Northern Spotted Owl Recovery Plan. <i>Conservation Biology</i> 23:1314–1319. <i>(Fire severity is not increasing in forests of the Klamath and southern Cascades or eastern Cascades.)</i></p> <p>Hanson, C.T., and D.C. Odion. 2014. Is fire severity increasing in the Sierra Nevada</p>	
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mountains, California, USA? *International Journal of Wildland Fire* 23: 1-8. (Hanson and Odion (2014) conducted the first comprehensive assessment of fire intensity since 1984 in the Sierra Nevada using 100% of available fire intensity data, and, using Mann-Kendall trend tests (a common approach for environmental time series data—one which has similar or greater statistical power than parametric analyses when using non-parametric data sets, such as fire data), found no increasing trend in terms of high-intensity fire proportion, area, mean patch size, or maximum patch size. Hanson and Odion (2014) checked for serial autocorrelation in the data, and found none, and used pre-1984 vegetation data (1977 Cal-Veg) in order to completely include any conifer forest experiencing high-intensity fire in all time periods since 1984 (the accuracy of this data at the forest strata scale used in the analysis was 85-88%). Hanson and Odion (2014) also checked the approach of Miller et al. (2009), Miller and Safford (2012), and Mallek et al. (2013) for bias, due to the use of vegetation layers that post-date the fires being analyzed in those studies. Hanson and Odion (2014) found that there is a statistically significant bias in both studies ($p = 0.025$ and $p = 0.021$, respectively), the effect of which is to exclude relatively more conifer forest experiencing high-intensity fire in the earlier years of the time series, thus creating the false appearance of an increasing trend in fire severity. Interestingly, Miller et al. (2012a), acknowledged the potential bias that can result from using a vegetation classification data set that post-dates the time series. In that study, conducted in the Klamath region of California, Miller et al. used a vegetation layer that preceded the time series, and found no trend of increasing fire severity. Miller et al. (2009) and Miller and Safford (2012) did not, however, follow this same approach. Hanson and Odion (2014) also found that the regional fire severity data set used by Miller et al. (2009) and Miller and Safford (2012) disproportionately excluded fires in the earlier years of the time series, relative to the standard national fire severity data set (www.mtbs.gov) used in other fire severity trend studies, resulting in an additional bias which created, once again, the inaccurate appearance of relatively less high-severity fire in the earlier years, and relatively more in more recent years. The results of Hanson and Odion (2014) are consistent with all other recent studies of fire intensity trends in California's forests that have used all available fire intensity data, including Collins et al. (2009) in a portion of Yosemite National Park, Schwind (2008) regarding all vegetation in California, Hanson et al. (2009) and Miller et al. (2012a) regarding conifer forests in the Klamath and southern Cascades regions of California, and Dillon et al. (2011) regarding forests of the Pacific (south to the northernmost

		<p><i>portion of California) and Northwest.)</i></p> <p>Hanson, C.T., and D.C. Odion. Sierra Nevada fire severity conclusions are robust to further analysis: a reply to Safford et al. International Journal of Wildland Fire 24: 294-295. <i>(Safford et al. 2015 hypothesized that, if the analysis in Hanson and Odion 2014 had been restricted to wildland fires in mixed-conifer and yellow pine forests on National Forest lands, a significant upward trend in fire severity since 1984 might have been evident. Hanson and Odion (in press) empirically tested this hypothesis and found, again, no increasing trend in fire severity in the Sierra Nevada.)</i></p> <p>Miller, J.D., C.N. Skinner, H.D. Safford, E.E. Knapp, and C.M. Ramirez. 2012a. Trends and causes of severity, size, and number of fires in northwestern California, USA. Ecological Applications 22:184-203. <i>(No increase in fire severity was found in the Klamath region of California, which partially overlaps the Sierra Nevada management region.)</i></p> <p><u>Issue #8: Home Protection from Wildland Fire</u></p> <p><u>2004 Framework Assumptions/Conclusions:</u></p> <p>The 2004 Framework assumed that home protection is best accomplished by a ¼-mile wide "Defense Zone" surrounding towns, and groups of cabins, as well as an additional 1.5-mile wide "Threat Zone" surrounding the Defense Zone.</p> <p><u>New Scientific Information:</u></p> <p>Cohen, J.D., and R.D. Stratton. 2008. Home destruction examination: Grass Valley Fire. U.S. Forest Service Technical Paper R5-TP-026b. U.S. Forest Service, Region 5, Vallejo, CA. <i>(The vast majority of homes burned in wildland fires are burned by slow-moving, low-severity fire, and defensible space within 100-200 feet of individual homes [reducing brush and small trees, and limbing up larger trees, while also reducing the combustibility of the home itself] effectively protects homes from fires, even when they are more intense)</i></p> <p>Gibbons, P. et al. 2012. Land management practices associated with house loss in wildfires. PLoS ONE 7: e29212. <i>(Defensible space work within 40 meters [about 131</i></p>	
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		<i>feet] of individual homes effectively protects homes from wildland fire. The authors concluded that the current management practice of thinning broad zones in wildland areas hundreds, or thousands, of meters away from homes is ineffective and diverts resources away from actual home protection, which must be focused immediately adjacent to individual structures in order to protect them.)</i>	
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