

## Appendix A – Response to Opposing Views Submitted by Dick Artley

The following table summarizes the Forest Service consideration of publications that were provided during the Legal Notice and Comment period and which were directly referenced in the comments, or determined to either have some relevance to the analysis or indicate there is a difference of opinion within the body of the science. NEPA states that comments on the EA shall be as specific as possible (40 CFR 1503.3 Specificity of Comments). Some of the following documents are considered non-substantive comments that do not warrant further response. In either case, the following table explains the consideration given by the Forest Service.

	Referenced Document	Forest Service Consideration/Response
<b>Attachment #1-</b> <b>Respected Scientists Reveal the Certainty that Natural Resources in the Forest are Harmed (and some destroyed) by Timber Harvest Activities</b>		
1-1	Al-jabber, Jabber M. <b>“Habitat Fragmentation:: Effects and Implications”</b> Clearcuts and forest fragmentation, Willamette NF, Oregon. From: Cascadia Wildland Project, Spring 2003 <a href="http://faculty.ksu.edu.sa/a/Documents/Habitat%20Fragmentation%20Effects%20and%20Implication.pdf">http://faculty.ksu.edu.sa/a/Documents/Habitat%20Fragmentation%20Effects%20and%20Implication.pdf</a>	The picture in the Cascadia Wildlands Project publication shows clearcuts and talks about fragmentation and edge effects which results in <i>crowding of the ark</i> (Meffe et al. 1997) where after logging, species all try to exist in the remaining patches of unlogged forest.  Clear cuts are not proposed for the Eiler project. During the development phase of the planning project, habitat for multiple species was taken into account. For further discussion on habitat considerations see the Wildlife BE and Silviculture Report.

	Referenced Document	Forest Service Consideration/Response
1-2	<p>Anderson, P.G. 1996. <b>“Sediment generation from forestry operations and associated effects on aquatic ecosystems”</b> Proceedings of the Forest-Fish Conference: Land Management Practices Affecting Aquatic Ecosystems, May 1-4, 1996, Calgary, Alberta.</p> <p><a href="http://www.alliance-pipeline.com/contentfiles/45_Sediment_generation.pdf">http://www.alliance-pipeline.com/contentfiles/45_Sediment_generation.pdf</a></p>	<p>Conference proceedings. The Forest Service recognizes and addresses the points from this opinion regarding sedimentation produced from harvest activities and its effects on fish resulting from changing stream morphology and habitat conditions.</p> <p>The proposed new roads (temporary and permanent) would not be located in RCAs nor would they cross drainages (Hydrology Report p. 9), and therefore would not be hydrologically connected to streams with aquatic habitat. Temporary roads will be decommissioned upon completion of project activities.</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 (p. 9-10). There are no TES or Forest Service sensitive fish species within the project area (Wildlife BE, p. 5-7).</p>
1-3	<p><b>“Applying Ecological Principles to Management of the U.S. National Forests”</b> <i>Issues in Ecology</i> Number 6 Spring 2000</p> <p><a href="http://www.esa.org/science_resources/issues/FileEnglish/issue6.pdf">http://www.esa.org/science_resources/issues/FileEnglish/issue6.pdf</a></p>	<p>The quotes from commenter could not be located within this cited report. This report "outlines key ecological considerations that should underlie sound forest management practices." It looks at ecological considerations for forest management in five broad categories: 1) soil and nutrient cycles, 2) hydrology, 3) biodiversity, 4) landscape level issues, and 5) global change.</p> <p>Eiler resource specialists have considered these and the effects are discussed in the EA.</p>
1-4	<p>Barry, Glen, Ph.D. <b>“Commercial Logging Caused Wildfires”</b> Published by the <i>Portland Independent Media Center</i>, August 2002.</p> <p><a href="http://portland.indymedia.org/en/2002/08/17464.shtml">http://portland.indymedia.org/en/2002/08/17464.shtml</a></p>	<p>Article in the Portland Independent Media Center newswire that says the recent wildfires in the west are being inappropriately blamed on environmentalists by the President, timber industry representatives and the Forest Service. It says that old growth logging should be halted and more concern around housing and communities should be undertaken. The article stresses the importance of fuels reductions around communities. The communities of Old Station, Cassel, Johnson Park, and Burney were all affected by the Eiler Fire. One purpose of the Eiler Project is to reduce fuel loads which minimize future wildfires near these communities.</p>

	Referenced Document	Forest Service Consideration/Response
1-5	Barry, John Byrne. <b>"Stop the Logging, Start the Restoration"</b> from <i>The Planet</i> newsletter June 1999, Volume 6, Number 5 <a href="http://www.sierraclub.org/planet/199905/ecl1.asp">http://www.sierraclub.org/planet/199905/ecl1.asp</a>	Sierra Club article that states timber advocates say commercial logging on federal lands can be sustained, whereas the North Star chapter (Minnesota) says public data does not support this. Instead they support bill, H.R.1396, which "would eliminate the money-losing commercial logging" and help logging communities develop alternative means of creating revenue.  The Eiler project was designed recover the economic value of forest products in a manner beneficial to local communities and forest management (EA page 8).
1-6	Cushman, John H. Jr. <b>"Audit Faults Forest Service on Logging Damage in U.S. Forests"</b> <i>New York Times</i> , February 5, 1999 <a href="http://query.nytimes.com/gst/fullpage.html?res=9B00E2DF163BF936A35751C0A96F958260&amp;sec=&amp;spon=&amp;pagewanted=print">http://query.nytimes.com/gst/fullpage.html?res=9B00E2DF163BF936A35751C0A96F958260&amp;sec=&amp;spon=&amp;pagewanted=print</a>	New York Times article refers to 12 specific timber sales from 1995-1999 and that Federal auditors found logging was poorly done, streams and wildlife were not being adequately protected, and mitigation measures were not incorporated.  The Eiler project has Harvest Inspectors and Timber Sale Administrators on the ground during the entire timber harvest process to ensure compliance. In addition project design features, BMPS, and monitoring are incorporated in the EA and followed up by resource specialists to ensure compliance.
1-7	Dombeck, Mike Ph.D. <b>"Through the Woods"</b> <i>The News Hour with Jim Lehrer</i> . 19 June 1998. <a href="http://www.pbs.org/newshour/bb/fedagencies/jan-june98/road_6-19.html">http://www.pbs.org/newshour/bb/fedagencies/jan-june98/road_6-19.html</a>	1998 TV Interview/discussion with stakeholders taken out of context- it was about an 18th month moratorium to reassess building roads in roadless areas of some national forests, lack of funding to maintain them, and the effects to fish and wildlife.  The Lassen National Forest has a Travel Management Rule in place and the Eiler project is consistent with the rule.
1-8	Dombeck, Mike Ph.D. a message on "Conservation Leadership" sent to all USFS employees on July 1, 1998 <a href="http://www.wvhighlands.org/VoicePast/VoiceAug98/Dombeck.Aug98.html">http://www.wvhighlands.org/VoicePast/VoiceAug98/Dombeck.Aug98.html</a>	Communication letter sent to all USFS employees by then Chief Dombeck regarding doing a better job in talking about and managing values like: "wilderness and roadless areas, clean water, protection of rare species, old growth forests, naturalness" as these are what the American people cherish.  The values of the Thousand Lakes Wilderness and the Inventoried Roadless Areas found in the project area were taken into consideration during planning. Other than hazard tree felling (leaving felled trees on site) no other project activities are planned in these areas. Clean water, rare species, and forest diversity were all also taken into consideration in the planning process through different planting schemes (Silviculture Report pages 22-25).

	Referenced Document	Forest Service Consideration/Response
1-9	Ehrlich, Anne Ph.D., David Foster Ph.D. and Peter Raven Ph.D. 2002 <b>"Scientists Seek Logging Ban on U.S.-Owned Land"</b> <i>New York Times</i> , April 15, 2002 <a href="http://www.nativeforest.org/campaigns/public_lands/stb_5_30_02.htm">http://www.nativeforest.org/campaigns/public_lands/stb_5_30_02.htm</a>	Article in Native Forest Network to President Bush calling for an end of commercial logging and instead focus on restoration and utilizing tree-free products. 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.
1-10	<b>Bush Fire Policy: Clearing Forests So They Do Not Burn</b> <i>FOREST CONSERVATION NEWS TODAY</i> , August 27, 2002 <a href="http://forests.org/archived_site/today/recent/2002/tiporefl.htm">http://forests.org/archived_site/today/recent/2002/tiporefl.htm</a>	Forest Conservation News Today article that President Bush and the Forest Service are utilizing EAs of fire to increase large-scale logging projects. 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.
1-11	Franklin, Jerry Ph.D., David Perry Ph.D., Reed Noss Ph.D., David Montgomery Ph.D. and Christopher Frissell Ph.D. 2000. <b>"Simplified Forest Management to Achieve Watershed and Forest Health: A Critique."</b> <a href="http://www.coastrange.org/documents/forestreport.pdf">http://www.coastrange.org/documents/forestreport.pdf</a>	A scientific panel report from National Wildlife Federation emphasizing that as our understanding about forest habitats increases so must our prescriptions for improving health evolve. It focuses on Simplified Structure-Based Management (SSBM) which is a set of loosely associated forestry concepts drawn principally from traditional silvicultural science, and applied to landscape-level forest management. "SSBM relies on traditional silvicultural techniques—harvest, thinning, chemical application (herbicide and pesticide), and pruning—to create salable timber and other forest "products," including wildlife habitat." The Eiler project utilizes silvicultural techniques (but not chemical application) to help meet the multiple objected listed above.
1-12	Franklin, Jerry F. Ph.D. and James K. Agee Ph.D. 2007. <b>"Forging a Science-Based National Forest Fire Policy."</b> <i>Issues in Science and Technology</i> . A National Wildlife Federation publication sponsored by the Bullitt Foundation <a href="http://www.coastrange.org/documents/forestreport.pdf">http://www.coastrange.org/documents/forestreport.pdf</a>	Provided weblink did not work and quotes provided by commenter not in Franklin and Agee (2007) <i>Forging a Science-based National Forest Fire Policy</i> . This paper is on the need for a National Forest Fire Policy (NFFP) based on science vice the current system where each Federal land management agency has their own established fire policies. The authors recognize that all forests are not alike and cannot be managed under one 'universal policy' and that recognition of different forest types and regions is an important key that an NFFP must accommodate. The Eiler project fire and fuel specialist has taken this into consideration in the EA (Chapter 3 Fire and Fuels).

	Referenced Document	Forest Service Consideration/Response
1-13	Giuliano, Jackie Alan, Ph.D. <b>"Fire Suppression Bush Style: Cut Down the Trees!"</b> <i>Environmental News Service</i> , 2008. <a href="http://www.ens-newswire.com/ens/aug2002/2002-08-23g.asp">http://www.ens-newswire.com/ens/aug2002/2002-08-23g.asp</a>	A 2002 article in the Environmental News Service an International Daily Newswire concerning President Bush wanting to increase logging and road building activities on Federal lands. Cascadia Forest Alliance agrees that the forests are out of balance due to decades of fire suppression but they say "increasing logging is the exact opposite of what should be done." 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.
1-14	Government Accounting Office. <b>"Western National Forests: A Cohesive Strategy is Needed to Address Catastrophic Wildfire Threats"</b> <i>GAO/RCED-99-65</i> <a href="http://www.gao.gov/archive/1999/rc99065.pdf">http://www.gao.gov/archive/1999/rc99065.pdf</a>	Report to the Subcommittee on Forest and Forest Health, Committee on Resources, House of Representatives on the need for a cohesive strategy on catastrophic wildfire threats. Scientists and agency officials attribute this (on the dry eastside forests) to long periods of fire suppression resulting in denser forests, shifts in tree species composition, and increases in insects and disease.  A need of the Eiler project is to reduce surface fuels loads to levels which facilitate site preparation for planting, minimize the danger and difficulty of suppressing future wildfires, and enhance future forest resiliency (EA pages 9-11).
1-15	Gorte, Ross W. Ph.D. <b>"Forest Service Timber Sale Practices and Procedures: Analysis of Alternative Systems."</b> A Congressional Research Service (CRS) report, October 30, 1995. <a href="http://www.ncseonline.org/NLE/CRS/abstract.cfm?NLEid=215">http://www.ncseonline.org/NLE/CRS/abstract.cfm?NLEid=215</a>	CRS Report for Congress concerning Forest Fire/Wildfire Protection (updated in 2006) especially in regards to two main factors: wildland urban interface (WUI) and decline in forest and rangeland health.  Forest health and WUI areas were discussed in both Silviculture and Fire and Fuels Reports.
1-16	Hanson, Chad Ph.D., <b>"Commercial Logging Doesn't Prevent Catastrophic Fires, It Causes Them."</b> Published in the <i>New York Times</i> , May 19, 2000 <a href="http://www.commondreams.org/views/051900-101.htm">http://www.commondreams.org/views/051900-101.htm</a>	New York Times article regarding the Los Alamos prescribed fire that "went awry", logging of large trees reduces the older, thick-barked trees that would survive a fire of this type and use of timber sales as a tool of fire management is not an option as most trees that need to be removed are of the smaller diameter variety that have very little commercial value.  The Eiler Project is a restoration project as a result of the Eiler Fire. This article does not pertain to this project as thinning of green forest is not a planned action.
1-17	Hanson, Chad, Ph.D. <b>"National Forest Protection"</b> Environment Now (see picture on last page) <a href="http://www.environmentnow.org/forest.html">http://www.environmentnow.org/forest.html</a>	The cited picture is of clearcuts on private timberlands.  The Eiler project is a fire salvage and restoration and does not propose clearcutting.

	Referenced Document	Forest Service Consideration/Response
1-18	Hanson, Chad Ph.D., “ <b>Logging Industry Misleads on Climate and Forest Fires.</b> ” Guest Commentary in <i>New West</i> , July 11, 2008 <a href="http://www.newwest.net/topic/article/logging_industry_misleads_on_climate_and_forest_fires/C41/L41/">http://www.newwest.net/topic/article/logging_industry_misleads_on_climate_and_forest_fires/C41/L41/</a>	The cited article is opinion commentary written in response to previous editorials. The author criticizes unnamed timber industry spokespersons for making what he claims are false statements regarding wildland fires and climate change.  The quote supplied by the commenter is opinion, is unrelated to the Eiler project, and does not provide anything substantive to warrant a respond.
1-19	Harvey, A. E., M. J. Larsen, and M. F. Jurgensen “ <b>Distribution of Ectomycorrhizae in a Mature Douglas-fir/larch Forest Soil in Western Montana</b> ” <i>Forest Science</i> , Volume 22, Number 4, 1 December 1976 , pp. 393-398(6) <a href="http://www.ingentaconnect.com/content/saf/fs/1976/00000022/0000004/art00007;jsessionid=l2sdf2hphia2.alexandra">http://www.ingentaconnect.com/content/saf/fs/1976/00000022/0000004/art00007;jsessionid=l2sdf2hphia2.alexandra</a>	The quote is 'Increased tree utilization potentially reduces the organic parent material (litter and wood residues) available for soil formation processes.' However, this study was conducted on a 250-year old mature Douglas-fir forest with limestone-based soil, thus it is not relevant to the Eiler planning area.
1-20	Houston, Alan Ph.D., “ <b>Why Forestry is in Trouble with the Public.</b> ” <i>Evergreen</i> magazine, October 1997. <a href="http://evergreenmagazine.com/web/Why_forestry_is_in_trouble_with_the_public-v2.html">http://evergreenmagazine.com/web/Why_forestry_is_in_trouble_with_the_public-v2.html</a>	Quote on the Evergreen webpage from Dr. Houston (1997) regarding the lack of transparency between the public and the Federal agencies.  The Eiler project has followed the NEPA process which included public involvement (with CFLR collaborative group, tribal consultation, and field trip with the Central Valley Regional Water Quality Control Board) scoping opportunity, and a 30 day comment period on the EA.
1-21	H. R. 1494 text. April 4, 2001 <a href="http://www.agriculturelaw.com/legis/bills107/hr1494.htm">http://www.agriculturelaw.com/legis/bills107/hr1494.htm</a>	House Resolution 1494 was “To save taxpayers money, reduce the deficit, cut corporate welfare, protect communities from wildfires, and protect and restore America's natural heritage by eliminating the fiscally wasteful and ecologically destructive commercial logging program on Federal public lands, restoring native biodiversity in our Federal public forests, and facilitating the economic recovery and diversification of communities affected by the Federal logging program. This bill was never passed through Congress.  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.

	Referenced Document	Forest Service Consideration/Response
1-22	<p>Hudak, Mike Ph.D. <b>“From Prairie Dogs to Oysters: How Biodiversity Sustains Us”</b> from his book review of <i>The Work of Nature: How the Diversity of Life Sustains Us</i> by Yvonne Baskin, 1997, <i>Newsletter of Earth Day Southern Tier</i>, February/March 1999, p. 2  <a href="http://www.mikehudak.com/Articles/FromPrairieDogs9902.html">http://www.mikehudak.com/Articles/FromPrairieDogs9902.html</a></p>	<p>Book Review: The Work of Nature regarding ecosystem services, how they are important to human civilizations, what we have done to disrupt them, and that we should consider each species “irreplaceable resource that should be preserved for future generations unless the costs of doing so prove to be intolerably—not just inconveniently—high.”</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>

	Referenced Document	Forest Service Consideration/Response
1-23	<p>Huff, Mark H. Ph.D.; Ottmar, Roger D.; Alvarado, Ernesto Ph.D. Vihnanek, Robert E.; Lehmkuhl, John F.; Hessburg, Paul F. Ph.D. Everett, Richard L. Ph.D. 1995. <b>“Historical and current forest landscapes in eastern Oregon and Washington. Part II: Linking vegetation characteristics to potential fire behavior and related smoke production”</b> Gen. Tech. Rep. PNW-GTR-355. USDA Forest Service, Pacific Northwest Research Station.</p> <p><a href="https://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/4706/PB96155213.pdf;jsessionid=C8DDB611DB29D3716BBF313AADBA2E70?sequence=121-1">https://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/4706/PB96155213.pdf;jsessionid=C8DDB611DB29D3716BBF313AADBA2E70?sequence=121-1</a></p>	<p>Research paper comparing the potential fire behavior and smoke production of historical and current time periods based on vegetative conditions in forty-nine watersheds in six river basins in eastern Oregon and Washington. “Potential rate of spread of fire, flame length, and smoke production were highly variable among sample watersheds in any given river basin. In general, rate of spread and flame lengths were positively correlated with the proportion of area logged in the sample watersheds. There were large increases in potential smoke production from the historical to the current periods for many sample watersheds due to changes in fuel loadings associated with management activities and, presumably, fire suppression. Wildfires were shown to produce nearly twice the amount of smoke as prescribed fire for the current period for all river basins. Understanding these and other tradeoffs will assist managers and society in making informed decisions about how to implement prescribed fire and manage wildfire to address air quality and forest health problems. Because of the variability of fuel or vegetative conditions observed among the sample watersheds, we recommend an extensive characterization of these conditions before large-scale restoration and maintenance of fire-related processes are undertaken.”</p> <p>“Fire is an essential component in the dynamics and sustainability of many ecosystems in eastern Oregon and eastern Washington. Fire is not a tool that should be used for all sites or situations. It is, however, a tool that should be available and understood during design of a management strategy for certain ecosystems. Proper application of fire, in harmony with other management techniques, often may be the best option for meeting specific objectives while creating the fewest adverse effects.”</p> <p>The Eiler Fire Project proposes to use prescribed fire (broadcast burning and pile burning) as a management tool to reduce surface fuel loadings throughout the project area.</p>

	Referenced Document	Forest Service Consideration/Response
1-24	Ingalsbee, Timothy Ph.D. " <b>Logging for Firefighting: A Critical Analysis of the Quincy Library Group Fire Protection Plan.</b> " Unpublished research paper. 1997. <a href="http://www.fire-ecology.org/research/logging-for-firefighting_2.htm">http://www.fire-ecology.org/research/logging-for-firefighting_2.htm</a>	<p>Unpublished research paper for the Western Ancient Forest Campaign on Quincy Library Group Bill (H.R.858), which originally called for a Proposal to increase federally subsidized commercial logging and morphed into a Plan “that claims increased timber extraction would both stabilize local economies and protect public forests from wildfires”. A selective reading of SNEP can thus extract specific quotes to support all sides in the debate over resource extraction vs. environmental protection in management of National Forests and other public lands.</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>
1-25	Ingalsbee, Timothy Ph.D. 2000. " <b>Commercial Logging for Wildfire Prevention: Facts Vs Fantasies</b> " <a href="http://www.fire-ecology.org/citizen/logging_and_wildfires.htm">http://www.fire-ecology.org/citizen/logging_and_wildfires.htm</a>	<p>Article on how commercial logging does not really benefit wildfire prevention and how commercial logging, road building, grazing etc. can lead to increases in disease, insects and severe fires and now is the time for ‘Congress to heed the facts, not fantasies, and develop forest management policies based on science, not politics.’</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>
1-26	Ingalsbee, Timothy Ph.D. " <b>Logging without Limits isn't a Solution to Wildfires</b> " published in the <i>Portland Oregonian</i> , August 6, 2002 <a href="http://www.klamathforestalliance.org/Documents/loggingwithoutlimits.html">http://www.klamathforestalliance.org/Documents/loggingwithoutlimits.html</a>	<p>Article published in the Portland Oregonian regarding that Congress is utilizing the severe fire season to try and pass legislation that would bypass the public involvement process in fuels reduction process.</p> <p>The Eiler project has followed the NEPA process which included public involvement (with CFLR collaborative group, tribal consultation, and field trip with the Central Valley Regional Water Quality Control Board) scoping opportunity, and a 30 day comment period on the EA.</p>

	Referenced Document	Forest Service Consideration/Response
1-27	Ingalsbee, Timothy Ph.D. <b>"The wildland fires of 2002 illuminate fundamental questions about our relationship to fire."</b> <i>The Oregon Quarterly</i> , Winter 2002 <a href="http://fireecology.org/research/wildfire_paradox.pdf">http://fireecology.org/research/wildfire_paradox.pdf</a>	<p>Article published in the Oregon Quarterly regarding the 2002 fire season and it "was but a harbinger of more frequent severe fire seasons to come' if we do not make changes between society and fires. This includes the damage done by building firelines, dropping retardant or contaminated water (noxious weeds, disease) in pristine areas, lighting backfires kills more than it saves due to the intensity, leave more large diameter trees- they're the ones better able to withstand a fire, and follow the community wildfire standards (clear up to 200 feet from a house in the WUI).</p> <p>A need of the Eiler project is to reduce surface fuels loads to levels which facilitate site preparation for planting, minimize the danger and difficulty of suppressing future wildfires, and enhance future forest resiliency (EA pages 9-11).</p>
1-28	Ingalsbee, Timothy Ph.D. <b>"Fanning the Flames! The U.S. Forest Service: A Fire-Dependent Bureaucracy."</b> <i>Missoula Independent</i> . Vol. 14 No. 24, June 2003 <a href="http://www.fire-ecology.org/research/USFS_fire_dependent.html">http://www.fire-ecology.org/research/USFS_fire_dependent.html</a>	<p>Article published in the Missoula Independent regarding that the Forest Service has become dependent on severe fires (brought on by decades of fire suppression) and how the Forest Service is trying to mask timber sales under the guise of "fuels reduction" and "forest restoration" projects.</p> <p>A need of the Eiler project is to reduce surface fuels loads to levels which facilitate site preparation for planting, minimize the danger and difficulty of suppressing future wildfires, and enhance future forest resiliency (EA pages 9-11).</p>
1-29	Ingalsbee, Timothy Ph.D. 2005. <b>"A Reporter's Guide to Wildland Fire."</b> Published by the Firefighters United for Safety, Ethics, and Ecology (FUSE), January 2005 <a href="http://www.commondreams.org/news2005/0111-14.htm">http://www.commondreams.org/news2005/0111-14.htm</a>	<p>Article on Common Dreams.org concerning the Firefighters United for Safety, Ethic, and Ecology (FUSEE) group, and the over dramatization by newspaper articles on fire. FUSEE offers the public "new perspectives on wildland fires, and the related issues of public information."</p> <p>A need of the Eiler project is to reduce surface fuels loads to levels which facilitate site preparation for planting, minimize the danger and difficulty of suppressing future wildfires, and enhance future forest resiliency (EA pages 9-11).</p>
1-30	Jalkotzy, M.G., P.I. Ross, and M.D. Nasserden. 1997. <b>"The Effects of Linear Developments on Wildlife: A Review of Selected Scientific Literature."</b> Prepared for Canadian Association of Petroleum Producers. Arc Wildlife Services Ltd., Calgary. 115pp. <a href="http://www.capp.ca/getdoc.aspx?DocId=24902&amp;DT=PDF">http://www.capp.ca/getdoc.aspx?DocId=24902&amp;DT=PDF</a>	<p>This publication is about effects of linear development (roads) on wildlife and the commenter is concerned about wolverine. As discussed in the Eiler Project Biological Evaluation, the Eiler Project would not affect wolverine or their habitat.</p> <p>The Forest has recognized the importance of managing for habitat connectivity for species such as American marten, 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.</p>

	Referenced Document	Forest Service Consideration/Response
1-31	Keene, Roy <b>“Logging does not prevent wildfires”</b> Guest Viewpoint, the Eugene <i>Register Guard</i> January 11, 2009 <a href="http://www.highbeam.com/doc/1G1-192070397.html">http://www.highbeam.com/doc/1G1-192070397.html</a>	<p>Guest Viewpoint from Th4-1e Register Guard (Eugene, OR) newspaper that logging has started many of the recent fires in Lane county.</p> <p>A need of the Eiler project is to reduce surface fuels loads to levels which facilitate site preparation for planting, minimize the danger and difficulty of suppressing future wildfires, and enhance future forest resiliency (EA pages 9-11).</p> <p>The Eiler Fire’s cause is undetermined (EA, page 4). The Bald and Day Fires (adjacent fires in the area) were both ignited my lightning.</p>
1-32	Keene, Roy <b>Restorative Logging? “More rarity than reality”</b> Guest Viewpoint, the Eugene <i>Register Guard</i> March 10, 2011 <a href="http://eugeneweekly.com/2011/03/03/views3.html">http://eugeneweekly.com/2011/03/03/views3.html</a>	<p>Guest editorial comment in Eugene weekly newspaper concerning the increased logging proposed under the guise of “restoration” and the detrimental effects on the land.</p> <p>The Eiler project analysis has addressed the effects of the proposed activities by resource in the EA.</p>
1-33	Keppeler, Elizabeth T. Robert R. Ziemer Ph.D., and Peter H. Cafferata <b>“Effects of Human-Induced Changes on Hydrologic Systems.”</b> An American Water Resources Association publication, June 1994 <a href="http://www.fs.fed.us/psw/publications/ziemer/Ziemer94a.PDF">http://www.fs.fed.us/psw/publications/ziemer/Ziemer94a.PDF</a>	<p>This study was done on steep slopes (30-70%), utilizing clear cutting and skyline yarding, along a coastal range that receives a large amount of moisture year round.</p> <p>This article is not relevant to the Eiler project. The Eiler project proposes only ground-based harvesting on slopes less than 35 percent and helicopter harvesting on slopes greater than 35%. Also, precipitation mainly falls as snow, averaging 40 inches a year (Silviculture Report, page 2). Slope stability and effects to soils was addressed Soil Scientist in Chapter 3 of the EA.</p>
1-34	Klein, Al 2004. <b>Logging Effects on Amphibian Larvae Populations in Ottawa National Forest.</b> <a href="http://www.nd.edu/~underc/east/education/documents/AKlein2004Pre-loggingsurveyofamphibianlarvaeinvernalpools.pdf">http://www.nd.edu/~underc/east/education/documents/AKlein2004Pre-loggingsurveyofamphibianlarvaeinvernalpools.pdf</a>	<p>Thesis paper.</p> <p>See response to 1-2</p>
1-35	Laverty, Lyle, USDA Forest Service and Tim Hartzell U.S. Department of the Interior <b>“A Report to the President in Response to the Wildfires of 2000”</b> , September 8, 2000. <a href="http://frames.nacse.org/6000/6269.html">http://frames.nacse.org/6000/6269.html</a>	<p>The President asked for a report as well as short-term actions towards reducing the wildland urban interface hazards and preparing firefighters for extreme conditions in the future. The 2000 Congressional Research Service (CRS) report pertained to plantations, which is dissimilar to this project. CRS also emphasized need to treat activity fuels, which this project does.</p>

	Referenced Document	Forest Service Consideration/Response
1-36	<p>Lawrence, Nathaniel, NRDC senior attorney “<b>Gridlock on the National Forests</b>” Testimony before the U.S. House of Representatives Subcommittee on Forests and Forest Health (Committee on Resources) December 4, 2001.  <a href="http://www.nrdc.org/land/forests/tnl1201.asp">http://www.nrdc.org/land/forests/tnl1201.asp</a></p>	<p>Testimony presented before the U.S. House of Representatives Subcommittee on Forests and Forest Health (Committee on Resources) on thinning for fire risk reduction and post-fire salvage logging.</p> <p>The Eiler project includes IDFs to mitigate the spread of invasive species and erosion, both concerns of salvage logging in the testimony. Wildlife habitat was also considered in proposal development.</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.” (ESD Relevant Information document, project record)</p>

	Referenced Document	Forest Service Consideration/Response
1-37	<p>Leitner, Brian. <b>“Logging Companies are Responsible for the California Wildfires.”</b> the Democratic Underground, October 30, 2003.  <a href="http://www.democraticunderground.com/articles/03/10/30_logging.html">http://www.democraticunderground.com/articles/03/10/30_logging.html</a></p>	<p>Article in Democratic Underground.com with regards to the fires in California and how the logging companies are actually responsible for them by clear cutting and thinning.</p> <p>The FS agrees that fire is a natural phenomenon in forests as stated in the article. 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.</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 Wagtenonk 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 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).</p>
1-38	<p>Long, Richard D., U.S. Department of Agriculture Office of Inspector General <b>“Western Region Audit Report: Forest Service National Fire Plan Implementation”</b> Report No. 08601-26-SF, November 2001.  <a href="http://maps.wildrockies.org/ecosystem_defense/Resources_Species_Topics/Fire/Misuse%20of%20Fire%20Plan%20funds.pdf">http://maps.wildrockies.org/ecosystem_defense/Resources_Species_Topics/Fire/Misuse%20of%20Fire%20Plan%20funds.pdf</a></p>	<p>U.S. Department of Agriculture Office of Inspector General Western Region Audit Report on the National Fore Plan Implementation. This report “recommended how best to respond to the ongoing fires, reduce the impacts of these fires on rural communities, and ensure sufficient firefighting resources in the future.” It found that the Forest Service did not correctly calculate funds needed to fight fire, it did not exercise control over restoration and rehabilitation NFP funding, ensure all projects met funding criteria, and clarify project criteria to address issues 1-3.</p>

	Referenced Document	Forest Service Consideration/Response
1-39	Mann, Charles C. Ph.D. and Mark L. Plummer Ph.D. <b>“Call for 'Sustainability' in Forests Sparks a Fire”</b> <i>Science</i> 26 March 1999: Vol. 283. no. 5410, pp. 1996 – 1998 <a href="http://www.sciencemag.org/content/283/5410/1996.summary">http://www.sciencemag.org/content/283/5410/1996.summary</a>	Article in Science magazine regarding “Ecological sustainability in the planning area, looking at broad factors such as the proportion of old-growth forests, stream flows, wildfire frequency, and the amount and distribution of large dead trees ” The resource specialists analysis for the Eiler planning area is found in Chapter 3 of the EA.
1-40	Maser, C. Ph.D., and J. M. Trappe Ph.D. <b>“The Seen and Unseen World of the Fallen Tree”</b> , 1984 USDA Forest Service, <i>GTR-PNW-164</i> <a href="http://www.fs.fed.us/pnw/publications/pnw_gtr164/">http://www.fs.fed.us/pnw/publications/pnw_gtr164/</a>	United States Department of Agriculture General Technical Report regarding down wood. The importance of snags and down wood 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 pages 16-17). In addition, approximately 35% of the project area will not be treated and be allowed to naturally recover. Where available, three down logs per acre greater than 15 inches in diameter and 15 feet in length would be retained. Avoid disturbing existing large down wood, greater than 15 inches in diameter and 15 feet in length. Provide for additional down woody material by leaving felled cull trees (dead trees with less than 25 percent sound wood) on site as needed to meet the three logs per acre requirement for down wood. The BE discusses the importance of snags and down logs, and how it effects specific species.
1-41	Maser, C. Ph.D., R. F. Tarrant, J. M. Trappe Ph.D., and J. F. Franklin Ph.D. 1988 <b>“The Forest to the Sea: A Story of Fallen Trees”</b> USDA Forest Service, <i>GTR-PNW-GTR-229</i> <a href="http://www.fs.fed.us/pnw/publications/pnw_gtr229/">http://www.fs.fed.us/pnw/publications/pnw_gtr229/</a>	United States Department of Agriculture General Technical Report on downed wood and its effects on the forest floor, streams, estuaries and coastal beaches. See response to 1-2 and 1-40.
1-42	McIntosh, B.A., J.R. Sedell, J.E. Smith, R.C. Wissmar S.E. Clarke, G.H. Reeves, and L.A. Brown <b>“Management history of eastside ecosystems: changes in fish habitat over 50 years, 1935-1992.”</b> 1994 <i>GTR-321 93-181</i> <a href="http://www.fs.fed.us/pnw/publications/pnw_gtr321/">http://www.fs.fed.us/pnw/publications/pnw_gtr321/</a>	United States Department of Agriculture General Technical Report on how logging affects small headwater streams. See response to 1-2.

	Referenced Document	Forest Service Consideration/Response
1-43	Moring, John R. Ph.D. 1975. "The Alsea Watershed Study: Effects of Logging on the Aquatic Resources of Three Headwater Streams of the Alsea River, Oregon – Part III." <i>Fishery Report Number 9</i> Oregon Department of Fish and Wildlife. <a href="http://www.for.gov.bc.ca/hfd/library/ffip/Moring_JR1975b.pdf">http://www.for.gov.bc.ca/hfd/library/ffip/Moring_JR1975b.pdf</a>	Oregon Department of Fish and Wildlife publication. See response to 1-2.
1-44	Naeem, Shahid Ph.D., F.S. Chapin III Ph.D., Robert Costanza Ph.D., Paul R. Ehrlich Ph.D., Frank B. Golley Ph.D., David U. Hooper Ph.D. J.H. Lawton Ph.D., Robert V. O'Neill Ph.D., Harold A. Mooney Ph.D. Osvaldo E. Sala Ph.D., Amy J. Symstad Ph.D., and David Tilman Ph.D. "Biodiversity and Ecosystem Functioning: Maintaining Natural Life Support Processes." <i>Issues in Ecology</i> No. 4. Fall 1999. <a href="http://www.esa.org/science_resources/issues/TextIssues/issue4.php">http://www.esa.org/science_resources/issues/TextIssues/issue4.php</a>	Article in <i>Issues in Ecology</i> (English version) regarding how human impacts have effects biological diversity and ecosystem services. The desired conditions for the Eiler project included considerations for biological diversity and ecosystem services (EA, page 8).
1-45	Nappier, Sharon. <i>Lost in the Forest: How the Forest Service's Misdirection, Mismanagement, and Mischief Squanders Your Tax Dollars.</i> <i>Taxpayers for Common Sense</i> , 2002. <a href="http://www.ourforests.org/fact/lostintheforest.pdf">http://www.ourforests.org/fact/lostintheforest.pdf</a>	Article in <i>Taxpayers for Common Sense</i> on how the Forest Service Misdirection, Mismanagement and Mischief Squanders your Tax Dollars in regards to timber sales, road management, and reforming budget priorities. 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.
1-46	Noble, Ian R. and Rodolfo Dirzo Ph.D. "Forests as Human-Dominated Ecosystems." <i>Science</i> Vol. 277. No. 5325, pp. 522 - 525. 25 July 1997. <a href="http://www.sciencemag.org/content/277/5325/522.abstract?maxto%20show=&amp;HITS=10&amp;hits=10&amp;RESULTFORMAT=&amp;fulltext=logging&amp;searchid=1136659907310_5043&amp;FIRSTINDEX=0&amp;journalcode=sci">http://www.sciencemag.org/content/277/5325/522.abstract?maxto%20show=&amp;HITS=10&amp;hits=10&amp;RESULTFORMAT=&amp;fulltext=logging&amp;searchid=1136659907310_5043&amp;FIRSTINDEX=0&amp;journalcode=sci</a>	Current management practices on the forest use an interactive approach for ecologically sustainable forestry. In planning the Eiler Project, the FS used a landscape approach and developed multiple desired conditions for the area that include aspects of safety, economic recovery, reduced fuel loads going into the future, reforestation, wildlife habitat, and functioning ecological services (EA, page 8).

	Referenced Document	Forest Service Consideration/Response
1-47	Northup, Jim. 1999. <b>"Public Wants More Wilderness, Less Logging on Green Mountain NF"</b> . Press Release by Forest Watch, a Vermont-based environmental organization. <a href="http://www.forestwatch.org/content.php?id=10">http://www.forestwatch.org/content.php?id=10</a>	<p>Survey conducted in Vermont where topography, climate, and geology are very different from dry, eastside forests in northern California.</p> <p>Twelve scoping comment received for the Eiler Project. Of those 12, 8 (66%) were for the proposed action, 2 (17%) were against the proposed action, and 2 (17%) were neutral to the proposed action, requesting 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.</p> <p>The Eiler project area includes wilderness and Inventoried Roadless Areas (IRAs). Other than hazard tree felling (leaving felled trees on site), no other project activities are proposed within the boundaries of the Thousand Lakes Wilderness and the IRAs.</p>
1-48	Okoand Ilan Kayatsky, Dan. <b>"Fight Fire with Logging?"</b> <i>Mother Jones</i> , August 1, 2002 <a href="http://motherjones.com/politics/2002/08/fight-fire-logging">http://motherjones.com/politics/2002/08/fight-fire-logging</a>	<p>Article in Mother Jones website regarding that the National Fire Plan is "becoming a feeding ground for logging companies" so they can remove the largest diameter trees.</p> <p>Thinning is not proposed in the Eiler project. See response to 1-37.</p>
1-49	Platt, Rutherford V. Ph.D., Thomas T. Veblen Ph.D., and Rosemary L. Sherriff <b>"Are Wildfire Mitigation and Restoration of Historic Forest Structure Compatible? A Spatial Modeling Assessment"</b> Published Online: by the by Association of American Geographers. Sep. 8, 2006 <a href="http://www.ingentaconnect.com/content/routledg/anna/2006/00000096/00000003/art00001">http://www.ingentaconnect.com/content/routledg/anna/2006/00000096/00000003/art00001</a>	<p>Could not locate full text article. The commenter quoted the abstract that is available at website. Abstract discusses ponderosa pine-dominated montane forest zone in Boulder County, Colorado mostly on private lands "and the need for wildfire mitigation and restoration of historic forest structure are potentially needed."</p> <p>Much of Eiler is dry east-side forests of northern California where one of the projects purpose and needs are to restore more of the planning area back to its historic fire regime.</p>
1-50	Powell, Douglas S. Ph.D., Joanne L. Faulkner, David R. Darr, Zhiliang Zhu Ph.D. and Douglas W. MacCleery. 1992. <b>"Forest Resources of the United States."</b> USDA Forest Service. Rocky Mt. Forest and Range Experiment Station. <i>Gen. Tech. Rep. RM-234</i> . <a href="http://www.fs.fed.us/rm/pubs_rm/rm_gtr234.html">http://www.fs.fed.us/rm/pubs_rm/rm_gtr234.html</a>	<p>Unites States Department of Agriculture General Technical Report on Forest Resources of the United States. This report is more than 20 years old and more current science and assessments were utilized during the analysis for the Eiler project.</p>
51	Commenter skipped 51 in the numbering scheme	

	Referenced Document	Forest Service Consideration/Response
1-52	Raven, Peter, Ph.D., Jane Goodall, C.B.E., Ph.D., Edward O. Wilson, Ph. D. and over 600 other leading biologists, ecologists, foresters, and scientists from other forest specialties. From a 1998 letter to congress. <a href="http://www.saveamericasforests.org/resources/Scientists.htm">http://www.saveamericasforests.org/resources/Scientists.htm</a>	Letter addressed to members of Congress that clearcutting, even aged silvicultural practices and timber road construction lead to ecosystem fragmentation and degradation. These 600+ scientists urge Congress to pass the "Act to Save America's Forests." as they feel it may be the last hope for America's forests.  Clearcutting is not proposed in the Eiler project. See response to 1-2 on the effects on hydrological resources.
1-53	Raven, Peter, Ph.D., from his February 9, 2001 letter to Senator Jean Carnahan <a href="http://www.saveamericasforests.org/Raven.htm">http://www.saveamericasforests.org/Raven.htm</a>	Letter on the "Act to Save America's Forests endorsed by over 600 leading scientists, this bill provides a concrete blueprint for managing our federal forests and proposes to stop logging in roadless areas, 'special areas and Northwest Ancient Forests.  Other than hazard tree felling (leaving felled trees on site), no other project activities are proposed within the boundaries of the Thousand Lakes Wilderness and the Inventoried Roadless Areas.
1-54	Roberson, Emily B. Ph.D., Senior Policy Analyst, California Native Plant Society Excerpt from a letter to Chief Dale Bosworth and 5 members of congress <a href="http://www.plantsocieties.org/PDFs/Fire%20letter%20CNPS%208.02%20letterhead.pdf">http://www.plantsocieties.org/PDFs/Fire%20letter%20CNPS%208.02%20letterhead.pdf</a>	Letter to Chief Bosworth from the California Native Plant Society (CNPS) regarding poor policy conclusions that failure to log National Forest is causing wildfires. The CNPS supports "fire and fuels management practices that minimize danger to lives and property, creates and maintain sustainable, productive forest ecosystems dominated by viable native species, conserve rare and imperiled species through their natural ranges and protect water quality and supply, soils and other forest ecosystem services and resources."  A comprehensive analysis was completed for the Eiler project and available in Chapter 3 of the EA. A need of the Eiler project is to reduce surface fuels loads to levels which facilitate site preparation for planting, minimize the danger and difficulty of suppressing future wildfires, and enhance future forest resiliency (EA pages 9-11). Project design took into consideration native species, water quality, soils, and ecosystem services.
1-55	Roelofs, Terry D. Ph.D. Testimony for the California State Water Board and Regional Water Quality Control Boards Regarding Waivers of Waste Discharge Requirements on Timber Harvest Plans. August 2003. <a href="http://webcache.googleusercontent.com/search?q=cache:QNY_aih1RxEJ:edennapa.org/thp/roelofstestimony.doc+%22timber+harvest%22+ph.d.+adverse&amp;hl=en&amp;ct=clnk&amp;cd=5&amp;gl=us">http://webcache.googleusercontent.com/search?q=cache:QNY_aih1RxEJ:edennapa.org/thp/roelofstestimony.doc+%22timber+harvest%22+ph.d.+adverse&amp;hl=en&amp;ct=clnk&amp;cd=5&amp;gl=us</a>	Article concerning salmonid in California waterways.  See response to 1-2.

	Referenced Document	Forest Service Consideration/Response
1-56	Rudzitis, Gundars. 1999 <b>"Amenities Increasingly Draw People to the Rural West"</b> <i>Rural Development Perspectives</i> , vol. 14, no. 2 <a href="http://www.ers.usda.gov/publications/rdp/rdpsept99/rdpsept99b.pdf">http://www.ers.usda.gov/publications/rdp/rdpsept99/rdpsept99b.pdf</a>	<p>Non-technical article in <i>Rural Development Perspectives</i> detailing a study and results on why people move to western rural areas. The number one reason was amenities related to the social environment, employment and outdoor recreation.</p> <p>One need in the Eiler project is to "reduce safety hazards in high use areas including along portions on National Forest System roads, trails, and recreation sites." High use areas include High use areas include: (1) the Hat Creek Recreation area along Highway 89 and Honn Campground, (2) forest roads that access the Tamarack and Cypress trailheads of the Thousand Lakes Wilderness, and (3) forest roads that access private timberland found within the fire perimeter. Other public use in this area includes hunting, fishing, hiking, camping, woodcutting, and sightseeing (EA, page 8).</p>
1-57	Scott, Mark G. <b>"Forest Clearing in the Gray's River Watershed 1905-1996"</b> A research paper submitted in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE in GEOGRAPHY Portland State University, 2001 <a href="http://www.markscott.biz/papers/grays/chapter1.htm">http://www.markscott.biz/papers/grays/chapter1.htm</a>	<p>Thesis paper. Research area is Gray's River watershed, approximately 20 miles from the coast of the Pacific Ocean. The climate, topography, and geology are vastly different than the dry east-side forests that dominate the Eiler planning area.</p> <p>See response to 1-2.</p>
1-58	Short, Brant, Ph.D. and Dayle C. Hardy-Short Ph.D. <b>"Physicians of the Forest": A Rhetorical Critique of the Bush Healthy Forest Initiative</b> <i>Electronic Green Journal</i> , Issue #19, December 2003 <a href="http://escholarship.org/uc/item/4288f8j5">http://escholarship.org/uc/item/4288f8j5</a>	<p>Article in the <i>Electronic Green Journal</i> that looks at the public demand for accountability on fires and the shift in ideology resulted in the Healthy Forest Initiative.</p> <p>During project development, the FS took into account ecosystem-centered values as the article suggests, along with human-centered values. One desired of the Eiler project is surface fuel load levels that minimize high-intensity, large scale fires with forest stands, while maintaining snags for wildlife habitat. No thinning is proposed in the Eiler project, and Eiler is also not considered to be a HFRA project.</p>
1-59	Sierra Club. 2005 <b>"Ending Commercial Logging on Public Lands"</b> <a href="http://northcarolina.sierraclub.org/pisgah/conservation/ecl.html">http://northcarolina.sierraclub.org/pisgah/conservation/ecl.html</a>	<p>Short article calling for the end of commercial logging on federal lands and to stop taxpayer subsidizing of these activities. More money and effort should be put into preservation.</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>

	Referenced Document	Forest Service Consideration/Response
1-60	Slaymaker, Olav Ph.D. <b>“Assessment of the Geomorphic Impacts of Forestry in British Columbia”</b> <i>AMBIO: A Journal of the Human Environment</i> 29(7):381-387. 2000 <a href="http://www.bioone.org/doi/abs/10.1579/0044-7447-29.7.381">http://www.bioone.org/doi/abs/10.1579/0044-7447-29.7.381</a>	Commenter quoted abstract from research article. Study area is British Columbia, Canada where the topography, geology, and climate is vastly different from the dry east-side forest of the Eiler planning area. See response to 1-2.
1-61	Stahl, Andy. <b>“Reducing the Threat of Catastrophic Wildfire to Central Oregon Communities and the Surrounding Environment.”</b> Testimony before the House Committee on Resources, August 25, 2003 <a href="http://www.propertyrightsresearch.org/2004/articles6/testimony_of_andy_stahl.htm">http://www.propertyrightsresearch.org/2004/articles6/testimony_of_andy_stahl.htm</a>	Testimony before the House Resources Committee stating that fires should be allowed to burn under appropriate conditions as 100 years of fire suppression has altered the fire regime, houses and property should use fire resistant materials, and returning fire to fire-dependent landscapes is important. One desired of the Eiler project is surface fuel load levels that minimize high-intensity, large scale fires with forest stands, while maintaining snags for wildlife habitat. Salvage logging is not the only way the FS plans on meeting this condition. The proposed action includes the use of prescribed fire to meet this need (EA, pages16-17).
1-62	Strickler, Karyn and Timothy G. Hermach, <b>“Liar, Liar, Forests on Fire: Why Forest Management Exacerbates Loss of Lives and Property”</b> Published by <i>CommonDreams.org</i> , October 31, 2003 <a href="http://www.commondreams.org/scriptfiles/views03/1031-10.htm">http://www.commondreams.org/scriptfiles/views03/1031-10.htm</a>	Article in CommonDreams.org that President Bush and timber industry are capitalizing on people’s fear of fire to increase commercial logging in back county old growth forests instead of thinning around communities for wildfire protection. 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.
1-63	<i>Taxpayers for Common Sense</i> . <b>“From the Ashes: Reducing the Harmful Effects and Rising Costs of Western Wildfires”</b> Washington DC , Dec. 2000 <a href="http://www.ourforests.org/fact/ashes.pdf">http://www.ourforests.org/fact/ashes.pdf</a>	An article regarding the mismanagement of tax payer money on ineffective or low priority effects. In addition Congress has granted a “blank check” approach to firefighting and the Forest Service has not followed through on reforming its wildfire program. Reforming the USFS wildfire/firefighting program is outside the scope of this decision. See response to 1-37 for a discussion of salvage logging and fuel loading.

	Referenced Document	Forest Service Consideration/Response
1-64	<p>Thomas, Craig. "Living with risk: Homeowners face the responsibility and challenge of developing defenses against wildfires." <i>Sacramento Bee</i> newspaper, July 1, 2007.  <a href="http://www.sierraforestlegacy.org/NR_InTheNews/SFLIP_2007-07-01_SacramentoBee.php">http://www.sierraforestlegacy.org/NR_InTheNews/SFLIP_2007-07-01_SacramentoBee.php</a></p>	<p>Article in the Sacramento Bee newspaper regarding the Angora fire and instead of pointing fingers to focus on the real problem, which is surface fuels, brush and trees smaller than 16 inches in diameter and that homeowners are responsible for defensible spaces around their homes. There is broad consensus on this point from various jurisdictions with the Tahoe Basin.</p> <p>A need of the Eiler project is to reduce surface fuels loads to levels which facilitate site preparation for planting, minimize the danger and difficulty of suppressing future wildfires, and enhance future forest resiliency (EA pages 9-11). See response to 1-37 for a discussion of salvage logging and fuel loading.</p>
1-65	<p>University of California; SNEP Science Team and Special Consultants 1996 "<i>Sierra Nevada Ecosystem Project: Final Report to Congress</i>" Volume 1, Chapter 4 – Fire and Fuels.  <a href="http://ceres.ca.gov/snep/pubs/web/PDF/v1_ch04.pdf">http://ceres.ca.gov/snep/pubs/web/PDF/v1_ch04.pdf</a></p>	<p>Article about fires in the Sierra Nevada's, the diaries of early explorers detailing the open vs dense dark forest and the indiscriminate burning done by sheepherders that would burn anything that would burn.</p> <p>A desired condition of the Eiler project is "Landscapes dominated by site-appropriate trees with variable densities that contribute to a fire resilient landscape and structures that provide diverse wildlife habitat and forest products" (EA, page 8).</p>
66	<p>Commenter skipped 66 in the numbering scheme</p>	
1-67	<p>Vincent, James W. Ph.D., Daniel A. Hagen, Ph.D., Patrick G. Welle Ph.D. and Kole Swanser. 1995. <i>Passive-Use Values of Public Forestlands: A Survey of the Literature</i>. A study conducted on behalf of the U.S. Forest Service.  <a href="http://www.icbemp.gov/science/vincent.pdf">http://www.icbemp.gov/science/vincent.pdf</a></p>	<p>Forest Service supported document. The Multiple -Use Sustained Yield Act of 1960 recognizes not only the cost and benefits but goods and services that may or may not have a monetary value attached.</p> <p>The Eiler EA recognizes this and they are included in the analysis.</p>
1-68	<p>Voss, René "<i>Getting Burned by Logging</i>," July 2002 <i>The Baltimore Chronicle</i>  <a href="http://www.baltimorechronicle.com/firelies_jul02.shtml">http://www.baltimorechronicle.com/firelies_jul02.shtml</a></p>	<p>Article in the Baltimore Chronicle regarding high levels of undergrowth can cause severe fire and some hazardous fuels reduction is warranted. However, the environmentalists are at odds with the Forest Service saying they are using the guise of fuels reduction to log old growth mature forests.</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. No green stands will be harvested.</p>

	Referenced Document	Forest Service Consideration/Response
1-69	<p>Wuerthner, George. <b>“Logging, thinning would not curtail wildfires”</b> The Eugene <i>Register-Guard</i>, December 26, 2008  <a href="http://wuerthner.blogspot.com/2008/12/logging-thinning-would-not-curtail.html">http://wuerthner.blogspot.com/2008/12/logging-thinning-would-not-curtail.html</a></p>	<p>Guest viewpoint in the Eugene Register in which the author refutes a previous article regarding the “unhealthy forest” require more logging. He says that large fires are driven by climatic conditions high winds, high temperatures, low humidity, and severe drought; you have the right ingredients for large fires.</p> <p>The fire/fuels managers are well aware of these effects on prescribed fire and consideration has been given in the analysis (Chapter 3, Fire and Fuels).</p>
1-70	<p>Wuerthner, George <b>“Who Will Speak For the Forests?”</b> <i>NewWest</i>, January 27, 2009  <a href="http://www.newwest.net/topic/article/who_will_speak_for_the_forests/C564/L564/">http://www.newwest.net/topic/article/who_will_speak_for_the_forests/C564/L564/</a></p>	<p>Blog article on New West.Net detailing his view, “that the role of environmental organizations is to continuously challenge the assumption that we “need” to log the forest” and advocate responsible behavior and promote recycling to reduce the “need” for wood products.</p> <p>Eiler resource specialists are well aware of competing needs within the forest and these are addressed the analysis in Chapter 3 of the EA.</p>
1-71	<p>Ziener, Robert R. Ph.D., <b>“Effect of logging on subsurface pipeflow and erosion: coastal northern California, USA.”</b> Proceedings of the Chengdu Symposium, July 1992. <i>IAHS Publication. No. 209</i>, 1992  <a href="http://www.fs.fed.us/psw/publications/ziemer/Ziener92.PDF">http://www.fs.fed.us/psw/publications/ziemer/Ziener92.PDF</a></p>	<p>Paper study area is 4.3 miles from the Pacific Ocean in California where three swales were constructed to measure pipeflow (an engineering term used to describe concentrated subsurface erosion).</p> <p>This is not applicable to the Eiler planning area due to topography, geology, and climate, which is vastly different from the dry east-side forest of the Eiler planning area.</p> <p>See response to 1-2.</p>
1-72	<p>From an April 16, 2002 letter to President Bush asking him to stop all logging in the national forests.  <a href="http://www.wvhighlands.org/Voice%20PDFs/VoiceAug02.pdf">http://www.wvhighlands.org/Voice%20PDFs/VoiceAug02.pdf</a></p>	<p>Letter to President Bush on Native Forest Network asking him to stop commercial logging on federal lands and instead invest in “scientifically supported forest restoration projects.” Commercial logging destroys wildlife habitat, degrades streams, increases fragmentation and reduces ecosystem health.</p> <p>Eiler resource specialists are well aware of competing needs within the forest and these are addressed the analysis in Chapter 3 of the EA. 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>

	Referenced Document	Forest Service Consideration/Response
1-73	Partridge, Arthur Ph.D., Statement at a Press Conference with Senator Robert Torricelli about S. 977 and HR 1376), the Act to Save America's Forests April 28, 1998, U.S. Capitol <a href="http://www.saveamericasforests.org/news/ScientistsStatement.htm">http://www.saveamericasforests.org/news/ScientistsStatement.htm</a>	Press conference with U.S. Senator Torricelli regarding deforestation is reducing biodiversity and clear cutting leads to severe ecosystem consequences such as: erosion, damage to streams, and even age stands could lead to increases in insects and disease.  Clear cuts are not proposed for the Eiler project. During the development phase of the planning project, habitat for multiple species was taken into account. For further discussion on habitat considerations see the Wildlife BE and Silviculture Report.
1-74	Elliot, W.J.; Page-Dumroese, D.; Robichaud, P.R. 1999. <i>The effects of forest management on erosion and soil productivity. Proceedings of the Symposium on Soil Quality and Erosion Interaction</i> Keystone, CO, July 7, 1996. Ankeney, IA: Soil and water Conservation Society. 16 p. <a href="http://forest.moscowfsl.wsu.edu/smp/docs/docs/Elliot_1-57444-100-0.html">http://forest.moscowfsl.wsu.edu/smp/docs/docs/Elliot_1-57444-100-0.html</a>	Article on disturbance and the effects on soil erosion and surface water and how they affect soil productivity in regards to roads, timber management, harvesting effects, nutrient impacts, and fire effects.  Effects to soils were discussed in the EA on pages 64-67.
1-75	<i>Forests Monitor</i> , Environmental Impacts of Logging, 2006 (with photos) <a href="http://www.forestsmonitor.org/en/reports/550066/550083">http://www.forestsmonitor.org/en/reports/550066/550083</a>	Article on the environmental impact assessments of logging operations in a number of different countries (Papua New Guinea, Solomon Islands and Cameroon).  This article is not relevant to the Eiler project.
1-76	Hansen, Chad, <b>Ending Timber Sales on National Forests: THE FACTS (FY '97)</b> Published in the <i>Earth Island Journal</i> , 1999 <a href="http://www.johnmuirproject.org/pdf/Fy-1997-Economic-Report-Ending-Timber-Sales.pdf">http://www.johnmuirproject.org/pdf/Fy-1997-Economic-Report-Ending-Timber-Sales.pdf</a>	Unable to access website.
1-77	WUERTHNER, GEORGE, "Why are Conservation Groups Advocating Logging Public Forests?" Published by <i>Counterpunch</i> , September 27, 2012 <a href="http://www.counterpunch.org/2012/09/27/why-are-conservation-groups-advocating-logging-public-forests/">http://www.counterpunch.org/2012/09/27/why-are-conservation-groups-advocating-logging-public-forests/</a>	Personal opinion pieces contending that far too many conservation groups have gone well beyond advocating "wise use" to advocating exploitation. The author contends that if the goal is to promote healthy ecosystems, we need large blazes and major beetle kill.
1-78	" <a href="http://forcechange.com/86223/stop-drilling-and-logging-on-federal-lands-while-the-public-is-kept-out/">Stop Drilling and Logging on Federal Lands While the Public is Kept Out</a> " A petition targeted for Secretary of the Interior Sally Jewel and Secretary of Agriculture Tom Vilsack. Posted at FORCECHANGE.COM, 2013 <a href="http://forcechange.com/86223/stop-drilling-and-logging-on-federal-lands-while-the-public-is-kept-out/">http://forcechange.com/86223/stop-drilling-and-logging-on-federal-lands-while-the-public-is-kept-out/</a>	The cover letter to a petition to stop logging and mining during the government shut down of 2013.  This article is not relevant to the Eiler project.

	Referenced Document	Forest Service Consideration/Response
1-79	<p><b>Conservation Groups Look to Hold Forest Service Accountable for Middle East Fork Logging Plan</b> Published by <i>Lowbagger</i>, April 25, 2006  <a href="http://www.lowbagger.org/mideast.html">http://www.lowbagger.org/mideast.html</a></p>	<p>Excerpt from a newspaper article regarding the Middle Fork East Fork Logging plan. This article is not relevant to the Eiler project.</p>
1-80	<p>Higgins, Margot, "National forest logging is bad business, study says" Posted on CNN.com-Nature, March 16, 2000  <a href="http://www.colorado.edu/AmStudies/lewis/west/costlogging.pdf">http://www.colorado.edu/AmStudies/lewis/west/costlogging.pdf</a></p>	<p>News article summarizing a study that logging is bad for forests and provide fewer economic benefits than intact forests. Forest benefits include clean water supplies and recreational opportunities.</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. Mitigations were included to protect forest benefits like clean water and recreational opportunities.</p>
<p><b>Attachment # 4</b>  <b>Roads Damage the Proper Ecological Functioning of the Natural Resources in a Forest</b></p>		

	Referenced Document	Forest Service Consideration/Response
4-1	<p>Al-jabber, Jabber M. 2003 “<b>Habitat Fragmentation: Effects and Implications</b>”  <a href="http://faculty.ksu.edu.sa/a/Documents/Habitat%20Fragmentation%20Effects%20and%20Implication.pdf">http://faculty.ksu.edu.sa/a/Documents/Habitat%20Fragmentation%20Effects%20and%20Implication.pdf</a></p>	<p>Article on fragmentation and edge effects which are well known and taken into account in the design and analysis of the Eiler Project. Potential effects of habitat fragmentation are not contested. The Eiler Fire itself was the causal agent affecting habitat fragmentation for mature forest species, such as American marten, within the project area. For instance, as stated on p. 59 of the Eiler Project BE, “Prior to the fire, approximately 3,358 acres of CWHR 4M, 4D, 5M and 5D existed within mixed-conifer, white fir and red fir forest types. Most of this habitat was in the southern portion of the fire within the Thousand Lakes Wilderness and Inventoried Roadless Area, and on the eastern slopes of Burney Mountain. The Eiler Fire reduced the amount of this habitat to about 240 acres, which represents about a 93 percent reduction of this habitat.” And, on p. 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>The Forest has recognized the importance of managing for habitat connectivity for species such as American marten, 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. As stated on p. 60 of the Eiler Project BE, “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>

	Referenced Document	Forest Service Consideration/Response
4-2	Amaranthus, Mike P. Ph.D., Raymond M. Rice Ph.D., N. R. Barr and R. R. Ziemer Ph.D. " <b>Logging and forest roads related to increased debris slides in southwestern Oregon.</b> " <i>Journal of Forestry</i> Vol. 83, No. 4. 1985. <a href="http://www.humboldt.edu/~rrz7001/pubs/Ziemer85.PDF">http://www.humboldt.edu/~rrz7001/pubs/Ziemer85.PDF</a>	This study was of debris slides in the Klamath Mountains in which 3/4 of the slides were found on steep slopes (over 70 percent) and half on the lower third of slopes. The Klamath Mountains topography, geology, and climate is vastly different from the Eiler planning area. Mechanical treatments are not proposed on slopes greater than 35 percent. Effects to soils were discussed in the EA on pages 64-67.
4-3	" <b>Applying Ecological Principles to Management of the U.S. National Forests</b> " <i>Issues in Ecology</i> Number 6 Spring 2000 <a href="http://cfpub.epa.gov/watertrain/pdf/issue6.pdf">http://cfpub.epa.gov/watertrain/pdf/issue6.pdf</a>	This report outlines key ecological considerations that should underlie sound forest management as listed by the panel. The quote from the commenter re: Road Construction Opposing View 3 could not be located in this report.
4-4	Borga, M., F. Tonelli, G. Dalla Fontana and F. Cazorzi " <b>Evaluating the Effects of Forest Roads on Shallow Landsliding</b> " <i>Geophysical Research Abstracts</i> , Vol. 5, 13312, 2003 <a href="http://www.cosis.net/abstracts/EAE03/13312/EAE03-J-13312.pdf">http://www.cosis.net/abstracts/EAE03/13312/EAE03-J-13312.pdf</a>	Abstract only. Commenter has quoted "Plot-level studies have demonstrated the ability of forest roads to intercept and route both subsurface and surface overland flow more efficiently to the stream network."  The proposed new roads (temporary and permanent) would not be located in RCAs nor would they cross drainages (Hydrology Report p. 9), and therefore would not be hydrologically connected to streams with aquatic habitat. Temporary roads will be decommissioned upon completion of project activities.  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 (p. 9-10). There are no TES or Forest Service sensitive fish species within the project area (Wildlife BE, p. 5-7).  Effects to soils were discussed in the EA on pages 64-67.
4-5	Brister, Daniel. " <b>A Review and Comment on: Forest Service Roads: A Synthesis of Scientific Information, 2nd Draft, USDA Forest Service.</b> " December 1998. <a href="http://www.wildlandscpr.org/forest-service-roads-synthesis-scientific-information-socio-economic-impacts">http://www.wildlandscpr.org/forest-service-roads-synthesis-scientific-information-socio-economic-impacts</a>	Opinion on USFS report. The focus is on the relationships between roads and sedimentation in streams.  See response to 4-4.

	Referenced Document	Forest Service Consideration/Response
4-6	Bunnell, Fred L. Ph.D., Kelly A. Squires and Isabelle Houde. 2004 <b>"Evaluating effects of large-scale salvage logging for mountain pine beetle on terrestrial and aquatic vertebrates."</b> <i>Mountain Pine Beetle Initiative Working Paper 1</i> . Canadian Forest Service. <a href="https://www.for.gov.bc.ca/hfd/library/documents/bib92944.pdf">https://www.for.gov.bc.ca/hfd/library/documents/bib92944.pdf</a>	This paper is on salvage logging in Canada to recover potential revenue that is lost as trees (mostly lodgepole) die and may slow the spread of beetles to other areas and the effects of salvage logging on vertebrates. The BE included analysis of the effects of the Eiler project on terrestrial and aquatic vertebrates.
4-7	Burns, James W., <b>"Some Effects of Logging and Associated Road Construction on Northern California Streams."</b> <i>Transactions of the American Fisheries Society</i> , Volume 1, Number 1, January 1972. <a href="http://www.fs.fed.us/psw/publications/4351/Burns72.pdf">http://www.fs.fed.us/psw/publications/4351/Burns72.pdf</a>	This paper from 1972 discussing effects of logging and road building on four California salmonid streams is based on the west side of the Cascade Mountain range where climate and topography is different from the dry, east-side forest where the Eiler project is located. See response to 4-4.
4-8	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. <a href="https://www.uwsp.edu/cnr/gem/Dombeck/MDSpeeches/CD%20CO PY/Chief%20Mike%20Dombeck%27s%20Remarks%20to%20Forest%20Service%20Employees%20and%20.htm">https://www.uwsp.edu/cnr/gem/Dombeck/MDSpeeches/CD%20CO PY/Chief%20Mike%20Dombeck%27s%20Remarks%20to%20Forest%20Service%20Employees%20and%20.htm</a>	Letter from Chief, communication between employees regarding the concern about roads on the environment. See response to 4-4.

	Referenced Document	Forest Service Consideration/Response
4-9	<p><b>“Forest Fragmentation and Roads”</b> Eastern Forest Environmental Threat Assessment Center U.S. Forest Service - Southern Research Station  <a href="http://www.forestthreats.org/publications/su-srs-018/fragmentation">http://www.forestthreats.org/publications/su-srs-018/fragmentation</a></p>	<p>USDA paper on fragmentation.</p> <p>Article on fragmentation and edge effects which are well known and taken into account in the design and analysis of the Eiler Project. The Eiler Fire itself was the causal agent affecting habitat fragmentation for mature forest species, such as American marten, within the project area. For instance, as stated on p. 59 of the Eiler Project BE, “Prior to the fire, approximately 3,358 acres of CWHR 4M, 4D, 5M and 5D existed within mixed-conifer, white fir and red fir forest types. Most of this habitat was in the southern portion of the fire within the Thousand Lakes Wilderness and Inventoried Roadless Area, and on the eastern slopes of Burney Mountain. The Eiler Fire reduced the amount of this habitat to about 240 acres, which represents about a 93 percent reduction of this habitat.”</p> <p>Roads, and the effects of roads regarding fragmentation, are not an issue in this post, high-intensity fire landscape. No substantive adverse effects of roads were identified in the analyses of effects to wildlife species of concern for this project. Roads are required to achieve multiple use objectives within this landscape. Roads within the Eiler Fire area will help facilitate reforestation efforts which will hasten a return of forest conditions to this fire-affected area, and thus ameliorate issues of fragmentation caused by this high-intensity fire. As stated on p. 21 of the BE, “Follow-up site preparation and tree planting within salvage units under the proposed action would accelerate the re-establishment of conifer seedlings within harvested areas, resulting in re-establishment of forested habitat sooner than under the no action alternative. This is especially the case given very large patches of high severity fire within the interior of the burn in which conifer seed sources would not be available to seed back in to initiate natural reforestation. Therefore, in the long-term there would be beneficial effects of this alternative in restoring forested habitats within the interior of the fire and hasten the return of forested habitat for this species relative to the no action.”</p>
4-10	<p>Forman, Richard T. and Lauren E. Alexander <b>“Roads and their Major Ecological Effects”</b> <i>Annual Review of Ecology and Systematics</i>, Vol. 29: 207-231, November 1998  <a href="http://arjournals.annualreviews.org/doi/abs/10.1146/annurev.ecolsys.29.1.207?cookieSet=1&amp;journalCode=ecolsys.1">http://arjournals.annualreviews.org/doi/abs/10.1146/annurev.ecolsys.29.1.207?cookieSet=1&amp;journalCode=ecolsys.1</a></p>	<p>Quote is abstract from paper. This paper is a comparison of The Netherlands, Australia, and the United States on roads and their effects.</p> <p>See response to 4-9.</p>

	Referenced Document	Forest Service Consideration/Response
4-11	Franklin, Jerry Ph.D., David Perry Ph.D., Reed Noss Ph.D., David Montgomery Ph.D. and Christopher Frissell Ph.D. 2000. " <b>Simplified Forest Management to Achieve Watershed and Forest Health: A Critique.</b> " A National Wildlife Federation publication sponsored by the Bullitt Foundation <a href="http://www.coastrange.org/documents/forestreport.pdf">http://www.coastrange.org/documents/forestreport.pdf</a>	Paper. Commenter reiterates two of the many questions that the panel specified under "III. Considerations for Ecosystem-based Management Approaches" suggests as a checklist of important considerations that should be included in fashioning and/or evaluating an ecosystem-based management plan.
4-12	Frey, David " <b>Logging Won't Halt Beetles, Fire, Report Says</b> " <i>NewWest.net</i> , 3-03-10 <a href="http://www.newwest.net/topic/article/logging_wont_halt_beetles_fire_report_says/C41/L41/">http://www.newwest.net/topic/article/logging_wont_halt_beetles_fire_report_says/C41/L41/</a>	David Frey is writing about another report authored by Noon, Black and DellaSalla which states that climate is the leading driver of fire not beetle kill and that thinning should be focused on Wildland Urban Interface. A quote by Frey is that cutting roads into current roadless areas could bring harm to wildlife, soils and fisheries. The original report was not referenced or linked so could not review the original article.  Other than hazard tree felling (leaving felled trees on site), no other project activities are proposed within the boundaries of the Thousand Lakes Wilderness and the Inventoried Roadless Areas. All road construction is occurring outside of these areas.
4-13	Furniss, Michael J., Michael Love Ph.D. and Sam A. Flanagan " <b>Diversion Potential at Road-Stream Crossings.</b> " USDA Forest Service. 9777 1814— <i>SDTDC</i> . December 1997. <a href="http://www.stream.fs.fed.us/water-road/w-r-pdf/diversionpntl.pdf">http://www.stream.fs.fed.us/water-road/w-r-pdf/diversionpntl.pdf</a>	Commenter quoted the Introduction of this paper in regards to stream crossings of roads.  See response to 4-4.
4-14	Gable, Eryn "Battling beetles may not reduce fore risks – report" <i>Land Letter</i> , March 4, 2010 <a href="http://www.xerces.org/2010/03/04/battling-beetles-may-not-reduce-fire-risks-report/">http://www.xerces.org/2010/03/04/battling-beetles-may-not-reduce-fire-risks-report/</a>	Paper. The commenter has quoted Barry Noon. This opinion piece is on tree thinning and logging across millions of acres of Western lodgepole pine and spruce-fir, and suggests that it is unlikely to reduce fire risk or alleviate future large-scale epidemics of bark beetles and that limited funds should be used for WUIs.  The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in Silviculture Report (pages 26-27, 32, and 35).
4-15	Grace, Johnny M. III Ph.D. 2003. " <b>Minimizing the impacts of the forest road system.</b> " In: Proceedings of the conference 34 international erosion control association; ISSN 1092-2806. [Place of publication unknown]: International Erosion Control Association: 301-310. <a href="http://www.srs.fs.usda.gov/pubs/ja/ja_grace011.pdf">http://www.srs.fs.usda.gov/pubs/ja/ja_grace011.pdf</a>	This study is by the USDA Forest Service Southern Research Station on four different alternatives for filtering sediment laden road run-off before it reaches the forest floor in Alabama. It studied vegetation, riprap, sediment fence, and settling basins.  See response to 4-4.

	Referenced Document	Forest Service Consideration/Response
4-16	Gucinski, Hermann Ph.D., Michael J. Furniss, Robert R. Ziemer Ph.D. and Martha H. Brookes, Editors. 2001. <b>"Forest Roads: A Synthesis of Scientific Information."</b> USDA Forest Service, General Technical Report <i>PNW-GTR-509</i> . <a href="http://www.fs.fed.us/pnw/pubs/gtr509.pdf">http://www.fs.fed.us/pnw/pubs/gtr509.pdf</a>	This synthesis goes through a wide variety of beneficial and detrimental effects of roads on social-economic, wildlife, aquatics, landscape scale and a general consideration of road networks. From the paper: "Roads are a vital component of civilization. They provide access for people to study, enjoy, and commune with forested wildlands and to extract an array of resources from natural and modified ecosystems."  See response to 4-1, 4-4, and 4-9.
4-17	Hann, W.J. et al. 1997. Landscape dynamics of the Basin. Pp. 337-1,055 in: Quigley, T.M. and S.J. Arbelbide (eds.) <i>An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins: Volume II</i> . USDA Forest Service, PNW-GTR-405 <a href="http://www.fs.fed.us/pnw/pubs/gtr405/pnw_gtr405aa.pdf">http://www.fs.fed.us/pnw/pubs/gtr405/pnw_gtr405aa.pdf</a>	Not the full document. (Abstract only, preface, Science team members, volume contents and acknowledgements). A quote from the abstract states "As compared to historic conditions, the terrestrial, aquatic, forest, and rangeland systems have undergone dramatic changes. Forested landscapes are more susceptible to fire, insect, and disease than under historic conditions."  The Eiler Project endorses this type of management and the purpose and need strives to return the area to a more fire dependent system normally found under historical conditions.
4-18	Haskell, David G. Ph.D. 1999 <b>"Effects of Forest Roads on Macroinvertebrate Soil Fauna of the Southern Appalachian Mountains"</b> <a href="http://www.jstor.org/stable/2641904">http://www.jstor.org/stable/2641904</a>	Commenter quote is summary from paper. This paper is the study of whether roads affect the abundance and richness of macroinvertebrate fauna in the soil leaf litter in the Southern Appalachian Mountains. The Southern Appalachian Mountains topography, geology, and climate is vastly different from the Eiler planning area, thus this paper is not applicable to the Eiler project area.
4-19	Hawbaker, Todd J. Ph.D., Volker C. Radeloff Ph.D., Murray K. Clayton Ph.D., Roger B. Hammer Ph.D., and Charlotte E. Gonzalez-Abraham Ph.D. <b>"Road Development, Housing Growth, and Landscape Fragmentation In Northern Wisconsin: 1937–1999"</b> <i>Ecological Applications</i> : Vol. 16, No. 3, pp. 1222-1237. <a href="http://www.esajournals.org/doi/abs/10.1890/1051-0761%282006%29016%5B1222%3ARDHGAL%5D2.0.CO%3B2?journalCode=ecap">http://www.esajournals.org/doi/abs/10.1890/1051-0761%282006%29016%5B1222%3ARDHGAL%5D2.0.CO%3B2?journalCode=ecap</a>	Commenter quote is the beginning of the papers summary. This paper mapped roads in northern Wisconsin from aerial photographs between 1937 to 1999 to improve the understanding of the dynamics of road networks over time and their effects on landscape patterns, and to identify significant relationships between road changes and other land-use changes.  See response to 4-1, 4-4, and 4-9.
4-20	Ivins, Molly Creators Syndicate, August 3 1997 08 03 <a href="http://www.creators.com/opinion/molly-ivins/molly-ivins-august-3-1997-08-03.html">http://www.creators.com/opinion/molly-ivins/molly-ivins-august-3-1997-08-03.html</a>	Article with the viewpoint that the Forest Service is logging in inappropriate steeper slopes with landslides occurring as a result of logging and road building.  The Eiler Project is not proposing any ground based treatments on slopes over 35 percent.  See response to 4-4.

	Referenced Document	Forest Service Consideration/Response
4-21	<p>Jones, Julia A. Ph.D., Frederick J. Swanson Ph.D. Beverley C. Wemple Ph.D., and Kai U. Snyder. <b>"Effects of roads on hydrology, geomorphology, and disturbance patches in stream networks."</b> <i>Conservation Biology</i> 14, No. 1. 2000.  <a href="http://www.jstor.org/stable/2641906">http://www.jstor.org/stable/2641906</a></p>	<p>This paper looks at the effects of road networks on stream and riparian networks in steep mountain watersheds, with high precipitation, forest cover, and road networks, principally the H. J. Andrews Experimental Forest on the western slopes of the Oregon Cascades.</p> <p>Topography, geology, and climate is vastly different from the dry east-side forest of the Eiler planning area.</p> <p>See response to 4-4.</p>
4-22	<p>Kahklen, Keith. <b>"A Method for Measuring Sediment Production from Forest Roads."</b> Pacific Northwest Research Station, USDA Forest Service. Research note <i>PNW-RN-529</i>, April 2001.  <a href="http://www.fs.fed.us/pnw/pubs/rn529.pdf">http://www.fs.fed.us/pnw/pubs/rn529.pdf</a></p>	<p>This objective of this paper is to provide a method of measuring sediment production from roads and sediment transportation from roads to small streams.</p> <p>See response to 4-4.</p>

	Referenced Document	Forest Service Consideration/Response
4-23	<p>Karr, James R. Ph.D., Christopher A. Frissell Ph.D., Jonathan J. Rhodes, David L. Perry Ph.D. and G. Wayne Minshall Ph.D. <b>Excerpt from a letter to the Subcommittee on Forests &amp; Forest Health U.S. House of Representatives.</b> 3 July, 2002.</p> <p><a href="http://www.westerntrout.org/trout/Reports/bosworth_response_to_Salvage_report.pdf">http://www.westerntrout.org/trout/Reports/bosworth_response_to_Salvage_report.pdf</a></p>	<p>Letter about the Beschta report (not peer-reviewed science) and why the Subcommittee on Forests and Forest Health should abide by it anyway. The Beschta report focuses on the impacts to the environment from road construction and timber harvest associated with salvage harvest.</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. 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 Wagtenonk 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 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).</p>
4-24	<p>Lawren, Bill 1992 "Singing the Blues for Songbirds: Bird lovers lament as experts ponder the decline of dozens of forest species" <i>National Wildlife</i></p> <p><a href="http://www.nwf.org/News-and-Magazines/National-Wildlife/Birds/Archives/1992/Singing-the-Blues-for-Songbirds.aspx">http://www.nwf.org/News-and-Magazines/National-Wildlife/Birds/Archives/1992/Singing-the-Blues-for-Songbirds.aspx</a></p>	<p>Article on decline of songbirds in Connecticut and along the eastern seaboard due to forest fragmentation.</p> <p>The effects of the Eiler Project on migratory birds has been addressed in the Migratory Landbird Conservation on the Lassen National Forest, Eiler Project Assessment (Eiler Project Record).</p>

	Referenced Document	Forest Service Consideration/Response
4-25	<p>Lowe, Kimberly Ph.D., "Restoring Forest Roads." A Northern Arizona University Ecological Restoration Institute publication <i>Working Paper</i> 12. June, 2005.</p> <p><a href="http://library.eri.nau.edu/gsd/collect/erilibra/import/Lowe.2005.WorkingPaper12RestoringForest.pdf">http://library.eri.nau.edu/gsd/collect/erilibra/import/Lowe.2005.WorkingPaper12RestoringForest.pdf</a></p>	<p>Publication that discusses the restoration of roads and different methods to restore a road.</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 response to 4-4</p>
4-26	<p>Luce, Charles H. Ph.D., 2002. "Hydrological processes and pathways affected by forest roads: what do we still need to learn?" <i>Hydrologic Processes</i>: 16, 2901–2904.</p> <p><a href="http://www.treearch.fs.fed.us/pubs/23954">http://www.treearch.fs.fed.us/pubs/23954</a></p>	<p>This paper addresses cutslope surfaces and road hydrology and the need for more research. The researcher says that a great deal of literature on forest roads focuses on road tread and the impervious nature of it and we should look at better ways to decompact them after use.</p> <p>See response to 4-4.</p>
4-27	<p>Malecki, Ron W. "A New Way to Look at Forest Roads: the Road Hydrologic Impact Rating System (RHIR)" <i>The Road-RIPorter</i>, Autumn Equinox, 2006</p> <p><a href="http://www.wildlandscpr.org/files/uploads/RIPorter/rr_v11-3.pdf">http://www.wildlandscpr.org/files/uploads/RIPorter/rr_v11-3.pdf</a></p>	<p>Article from a gentleman who developed a Road Hydrologic Impact Rating System (RHIR) to assess the impacts of roads in an area. The model also can be used to identify roads that are contributing to impacts in the watershed and should be targeted for rehabilitation or decommissioning.</p> <p>See response to 4-4.</p>
4-28	<p>McCashion, J. D. and R. M. Rice Ph.D. 1983. "Erosion on logging roads in northwestern California: How much is avoidable?" <i>Journal of Forestry</i> 8(1): 23-26.</p> <p><a href="http://www.fs.fed.us/psw/rsi/projects/water/McCashion.pdf">http://www.fs.fed.us/psw/rsi/projects/water/McCashion.pdf</a></p>	<p>Comment is the abstract. This is an old paper on roads where type of road and road location play a large part in road-related erosion. Best Management Practices and updated technology are utilized today to help locate roads in a suitable and sustainable location where needed.</p> <p>See response to 4-4.</p>
4-29	<p>McFero III, Grace, J. "Sediment Plume Development from Forest Roads: How are they related to Filter Strip Recommendations?" An ASAE/CSAE Meeting Presentation, Paper Number: 045015, August 1-4, 2004.</p> <p><a href="http://www.srs.fs.usda.gov/pubs/ja/ja_grace017.pdf">http://www.srs.fs.usda.gov/pubs/ja/ja_grace017.pdf</a></p>	<p>Presentation written for 2004 ASAE/CSAE Annual International Meeting in Canada. It is about utilizing turn-outs, and turnout spacing along the road length, and Best Management Practices (BMPs) to help control sediment movement and resulting sediment plumes from the road system.</p> <p>See response to 4-4.</p>

	Referenced Document	Forest Service Consideration/Response
4-30	McGarigal, Kevin Ph.D., William H. Romme Ph.D. Michele Crist Ph.D. and Ed Roworth Ph.D. <b>“Cumulative effects of roads and logging on landscape structure in the San Juan Mountains, Colorado (USA)”</b> <i>Landscape Ecology</i> , Volume 16, Number 4 / May, 2001 <a href="http://www.springerlink.com/content/w12557624742tv77/">http://www.springerlink.com/content/w12557624742tv77/</a>	This study was conducted to determine to what extent logging activities and road building have changed the overall landscape structure, especially patch structure in mature forests at elevations over 7,874 feet. If the analysis was done in suitable timberlands then the number of patches increased but the overall size decreased as the result from timber harvest and road building activities than the landscape as a whole. If all the study area land was included then only small changes in landscape structure was noted.  See response to 4-1, 4-4, and 4-9.
4-31	McLellan, Bruce N. <b>“Relationships between Human Industrial Activity and Grizzly Bears”</b> Bears: Their Biology and Management, Vol. 8 International Conference on Bear Research and Management February 1989 (1990), pp. 57-64 <a href="http://www.bearbiology.com/fileadmin/tpl/Downloads/URSUS/Vol_8/McClellan_8.pdf">http://www.bearbiology.com/fileadmin/tpl/Downloads/URSUS/Vol_8/McClellan_8.pdf</a>	This paper is about grizzly bears and the relationship between roads, their use of habitat close to roads, and how timber harvest may alter their habitat, especially in remote areas.  There are no known grizzly bears, nor is there any grizzly bear habitat in the Eiler project area.
4-32	Megahan, Walter F. Ph.D. <b>“Predicting Road Surface Erosion from Forest Roads in Washington State”</b> from a presentation presented at the 2003 Geological Society of America meeting. <a href="http://gsa.confex.com/gsa/2003AM/finalprogram/abstract_67686.htm">http://gsa.confex.com/gsa/2003AM/finalprogram/abstract_67686.htm</a>	Article for the 2003 Seattle Geological Society of America discussing the Washington Road Surface Erosion Model and its associated database. The emphasis is on the relationship between roads as a source of sediment in the area.  See response to 4-4.
4-33	Montgomery, David Ph.D., Statement at a Press Conference with Senator Robert Torricelli about S. 977 and HR 1376), the Act to Save America’s Forests April 28, 1998, U.S. Capitol <a href="http://www.saveamericasforests.org/news/ScientistsStatement.htm">http://www.saveamericasforests.org/news/ScientistsStatement.htm</a>	Statement on clearcutting and stopping this destructive practice along with the adverse effects of roads in the watershed.  Clearcutting is not proposed in the Eiler project. See response to 4-4.
4-34	Noss, Reed F., Ph.D. 1995. <b>“The Ecological Effects of Roads or the Road to Destruction”</b> <i>Wildlands CPR</i> <a href="http://www.wildlandscpr.org/ecological-effects-roads">http://www.wildlandscpr.org/ecological-effects-roads</a>	Article regarding the impacts of roads on wildlife.  See response to 4-9.
4-35	Ortega, Yvette K.; Capen, David E. 1999. <b>“Effects of forest roads on habitat quality for Ovenbirds in a forested landscape”</b> <i>Auk</i> . 116(4): 937-946. <a href="http://www.fs.fed.us/rm/pubs_other/rmrs_1999_ortega_y001.html">http://www.fs.fed.us/rm/pubs_other/rmrs_1999_ortega_y001.html</a>	Commenter quoted the abstract. The Ovenbird is a Neotropical migrant that prefers deciduous/conifer (maple, basswood, pine forests) closed canopy forests in the east and is a rare vagrant west of the Rockies (NatureServe 2012).

	Referenced Document	Forest Service Consideration/Response
4-36	Reed, R.A., Johnson-Barnard, J., and Baker, W.A. 1996. " <b>Contribution of Roads to Forest Fragmentation in the Rocky Mountains.</b> " <i>Conservation Biology</i> 10: 1098-1106. <a href="http://cpluhna.nau.edu/Research/contribution_of_roads_to_forest.htm">http://cpluhna.nau.edu/Research/contribution_of_roads_to_forest.htm</a>	Paper on how roads and logging contribute to fragmentation by dissecting large patches into smaller ones creating more edge effects. See response to 4-9.
4-37	Reid, L. M. Ph.D. and T. Dunne (1984), " <b>Sediment Production from Forest Road Surfaces,</b> " <i>Water Resour. Res.</i> , 20(11), 1753–1761. <a href="http://www.fs.fed.us/psw/publications/reid/psw_1984_reid001.pdf">http://www.fs.fed.us/psw/publications/reid/psw_1984_reid001.pdf</a>	Commenter quoted the abstract. This paper is on road surface erosion and how much is actually from the roadbed itself, how much is from other sources, and how important is this road surface source in comparison/relation to those other sources in western Washington. Topography, climate, and geology are different in western WA than the dry east-side forest of northern California. See response to 4-4.
4-38	Reid, Leslie M. Ph.D., Robert R. Ziemer Ph.D., and Michael J. Furniss 1994. " <b>What do we know about Roads?</b> " USDA Forest Service. <a href="http://www.fs.fed.us/psw/publications/reid/4Roads.htm">http://www.fs.fed.us/psw/publications/reid/4Roads.htm</a>	Paper on roads being the 'backbone' of society, the problems associated with roads and options for roads (restricted use, closing). The paper discusses the relationship between roads and sedimentation. See response to 4-4.
4-39	Rice, Raymond M. Ph.D., Forest B. Tilley and Patricia A. Datzman. 1979. " <b>Watershed's Response to Logging and Roads: South Fork of Caspar Creek, California, 1967-1976.</b> " USDA Forest Service, <i>Research Paper PSW-146.</i> <a href="http://www.fs.fed.us/psw/publications/rice/Rice79.pdf">http://www.fs.fed.us/psw/publications/rice/Rice79.pdf</a>	This paper is on the effects of roads and logging in a pair of watersheds- one was logged and one was left alone as a control. Streamflow and sedimentation was measured over several years and analyzed separately. See response to 4-4.
4-40	Riedel, Mark S. Ph.D. and James M. Vose Ph.D., " <b>Forest Road Erosion, Sediment Transport and Model Validation in the Southern Appalachians.</b> " Presented at the Second Federal Interagency Hydrologic Modeling Conference, July 28 – August 1, 2002. <a href="http://www.srs.fs.usda.gov/pubs/ja/ja_riedel002.pdf">http://www.srs.fs.usda.gov/pubs/ja/ja_riedel002.pdf</a>	This paper's study area is in southern Tennessee and northern Georgia looking at a major river (supplies drinking water, being considered for Wild and Scenic status) where the researchers are working with an erosion model (Sediment Tool) to help prioritize road improvement projects by looking at severity of sediment erosion and transport, sediment impacts on water quality, road usage, and potential effectiveness of restoration. See response to 4-4.

	Referenced Document	Forest Service Consideration/Response
4-41	<p>Rowland, M. M., M. J. Wisdom, B. K. Johnson, and M. A. Penninger 2005. <b>“Effects of Roads on Elk: Implications for Management in Forested Ecosystems.”</b> Pages 42-52 in Wisdom, M. J., technical editor, <i>The Starkey Project: a synthesis of long-term studies of elk and mule deer</i>. Reprinted from the 2004 Transactions of the North American Wildlife and Natural Resources Conference, Alliance Communications Group.</p> <p><a href="http://www.fs.fed.us/pnw/pubs/journals/pnw_2004_rowland001.pdf">http://www.fs.fed.us/pnw/pubs/journals/pnw_2004_rowland001.pdf</a></p>	<p>This article discusses the relationship between roads and habitat effectiveness for wildlife species. No elk occur within the project area.</p> <p>The Eiler Fire itself was the causal agent affecting habitat fragmentation for mature forest species, such as American marten, within the project area. For instance, as stated on p. 59 of the Eiler Project BE, “Prior to the fire, approximately 3,358 acres of CWHR 4M, 4D, 5M and 5D existed within mixed-conifer, white fir and red fir forest types. Most of this habitat was in the southern portion of the fire within the Thousand Lakes Wilderness and Inventoried Roadless Area, and on the eastern slopes of Burney Mountain. The Eiler Fire reduced the amount of this habitat to about 240 acres, which represents about a 93 percent reduction of this habitat.”</p> <p>Roads, and the effects of roads regarding fragmentation, are not an issue in this post, high-intensity fire landscape. No substantive adverse effects of roads were identified in the analyses of effects to wildlife species of concern for this project. Roads are required to achieve multiple use objectives within this landscape. Roads within the Eiler Fire area will help facilitate reforestation efforts which will hasten a return of forest conditions to this fire-affected area, and thus ameliorate issues of fragmentation caused by this high-intensity fire. As stated on p. 21 of the BE, “Follow-up site preparation and tree planting within salvage units under the proposed action would accelerate the re-establishment of conifer seedlings within harvested areas, resulting in re-establishment of forested habitat sooner than under the no action alternative. This is especially the case given very large patches of high severity fire within the interior of the burn in which conifer seed sources would not be available to seed back in to initiate natural reforestation. Therefore, in the long-term there would be beneficial effects of this alternative in restoring forested habitats within the interior of the fire and hasten the return of forested habitat for this species relative to the no action.”</p>
4-42	<p><a href="http://www.academia.edu/174452/Roads_as_Barriers_to_Animal_Movement_in_Fragmented_Landscapes">http://www.academia.edu/174452/Roads as Barriers to Animal Movement in Fragmented Landscapes</a></p>	<p>Study on how roads can act as barriers to terrestrial vertebrates movement through mortality during crossing attempts or behavioral avoidance. This barrier effect has negative demographic and genetic consequences that can ultimately result in local or regional extinction.</p> <p>See response to 4-41.</p>

	Referenced Document	Forest Service Consideration/Response
4-43	Shanley, James B. and Beverley Wemple Ph.D. <b>"Water Quantity and Quality in the Mountain Environment"</b> <i>Vermont Law Review</i> , Vol. 26:717, 2002 <a href="http://www.uvm.edu/~bwemple/pubs/shanley_wemple_law.pdf">http://www.uvm.edu/~bwemple/pubs/shanley_wemple_law.pdf</a>	This research is on mountain stream hydrology and the importance/vulnerability to mountain development (ski areas, resorts) due to harsh environment for vegetation, thin soils, and high snowfall. See response to 4-4
4-44	Swift Jr., L. W. <b>"Soil losses from roadbeds and cut and fill slopes in the Southern Appalachian Mountains."</b> <i>Southern Journal of Applied Forestry</i> 8: 209-216. 1984. <a href="http://cwt33.ecology.uga.edu/publications/403.pdf">http://cwt33.ecology.uga.edu/publications/403.pdf</a>	This paper looks at location of the road, road width, cutslope, and number of vehicle trips on the road in relation to soil loss. It also examines whether grass along the slopes or a light layer of gravel in the roadbed gravel would affect soil loss. All alternative effects to soils are discussed in Chapter 3 of the EA, and in the Soils Report, including road construction.
4-45	Trombulak, Stephen C. Ph.D. and Christopher A. Frissell Ph.D. <b>"Review of Ecological Effects of Roads on Terrestrial and Aquatic Communities"</b> <i>Conservation Biology</i> , Volume 14, No. 1, Pages 18–30, February 2000 <a href="http://www.transwildalliance.org/resources/200922144524.pdf">http://www.transwildalliance.org/resources/200922144524.pdf</a>	Commenter quoted the abstract. This paper is on road construction during the past century and how it is the most widespread form of natural landscape modification. This, in turn, modifies animal behavior, increases mortality from road kill and alters habitat and how road maintenance contributes to an increase in chemicals being added to the environment. See response to 4-41.
4-46	Watson, Mark L. <b>"Habitat Fragmentation and the Effects of Roads on Wildlife and Habitats."</b> <i>Background and Literature Review</i> 2005. <a href="http://www.safepassagecoalition.org/resources/Habitat%20Fragmentation.pdf">http://www.safepassagecoalition.org/resources/Habitat%20Fragmentation.pdf</a>	Literature review on habitat fragmentation and road construction. See response to 4-41.
4-47	Wisdom, Michael J., Richard S. Holthausen Ph.D., Barbara C. Wales Ph.D., Christina D. Hargis Ph.D., Victoria A. Saab Ph.D., Danny C. Lee Ph.D., Wendel J. Hann Ph.D. Terrell D. Rich, Mary M. Rowland, Wally J. Murphy, and Michelle R. Eames. <b>"Source Habitats for Terrestrial Vertebrates of Focus in the Interior Columbia Basin: Broad-Scale Trends and Management Implications .Volume 2 – Group Level Results."</b> USDA Forest Service, <i>PNW-GTR-485</i> , May 2000. <a href="http://www.treesearch.fs.fed.us/pubs/3081">http://www.treesearch.fs.fed.us/pubs/3081</a>	See response to 4-41.

	Referenced Document	Forest Service Consideration/Response
4-48	Wright, Bronwen, Policy Analyst and Attorney Pacific Rivers Council Excerpt from a May 11, 2009 letter to the Rogue River-Siskiyou National Forest Travel Management Team <a href="http://www.pacificrivers.org/protection-defense/comment-letters/Rogue%20River%20Siskiyou%20TMP%20DEA.pdf">http://www.pacificrivers.org/protection-defense/comment-letters/Rogue%20River%20Siskiyou%20TMP%20DEA.pdf</a>	Letter to Rogue River-Siskiyou National Forest re: Motorized Vehicle Use Draft Environmental Impact Statement concerning the amount of open roads and the effects of those roads on that Forest.  See response to 4-4 and 4-41.
4-49	Wuerthner, George 2008 “ <b>Ecological Differences between Logging and Wildfire</b> ” <a href="http://wuerthner.blogspot.com/2008/12/ecological-differences-between-logging.html">http://wuerthner.blogspot.com/2008/12/ecological-differences-between-logging.html</a>	Comments on a blog website. The commenter suggests a relationship between roads and fragmented habitat. Additionally, roads can be a vector for invasive species spread.  See response to 4-41. Also, IDFs are included to prevent the spread of invasive species (EA, pages 21-22).
4-50	Zimmerman, E.A. and P.F. Wilbur “ <b>A Forest Divided</b> ” New Roxbury Land Trust newsletter, 2004 <a href="http://www.ourbetternature.org/forestfrag.htm">http://www.ourbetternature.org/forestfrag.htm</a>	Article regarding the impacts of forest fragmentation and the impacts to wildlife species.  See response to 4-41.
<b>Attachment # 5</b> <b>Insect Activity is a Beneficial Natural Disturbance Event in the Forest</b>		
5-1	Barnard, E. L. Ph.D. “ <b>Forest Health Fundamentals</b> ” from <i>Forest Management</i> , 2004 <a href="http://www.fl-dof.com/forest_management/fh_fundamentals.html">http://www.fl-dof.com/forest_management/fh_fundamentals.html</a>	Article on what forest health means/definition and that Florida needs healthy forests. The article states “To the extent that unhealthy forests and forest conditions remain, and to the extent that we focus on treating symptoms (e.g., killing beetles, putting out fires) while neglecting the underlying cause(s) of the problems (i.e., unhealthy forest conditions), we can expect more damaging wildfires and more pest outbreaks. And, contrary to the thinking of some, a "hands off" approach is not now a suitable option for developing and maintaining healthy forests in Florida.” This statement and the emphasis of the article is on active management to prevent catastrophic conditions is essential.  The Eiler project management is reflective of this article in that a landscape has been assessed and treatments have been designed to reduce the stressors on residual trees, create conditions for long-term sustainability and development of late and old structured conditions and create conditions approximately a fire climax community in the forested system.

	Referenced Document	Forest Service Consideration/Response
5-2	Barry, Glen Ph.D. <b>“Insect Attacks May Benefit Colorado Forests”</b> Forests.org, January 29, 2004 <a href="http://forests.org/blog/2004/01/insect-attacks-may-benefit-col.asp">http://forests.org/blog/2004/01/insect-attacks-may-benefit-col.asp</a>	Blog website. Essentially the emphasis is that insects or diseases cannot be or shouldn't be, totally removed from the landscape.  The Eiler project does not attempt to remove all insects and diseases in the project area. Forest health is discussed in the Silviculture Report (pages 26-27, 32, and 35).
5-3	Black, Scott Hoffman Ph.D., Entomologist/Ecologist and Executive Director, The Xerces Society, Excerpt from a 2008 comment letter to Alice Allen Hell Canyon Ranger District Black Hills National Forest <a href="http://www.xerces.org/wp-content/uploads/2008/09/black_hills_comments.pdf">http://www.xerces.org/wp-content/uploads/2008/09/black_hills_comments.pdf</a>	Letter re: that the Xerces Society cannot support the Jasper Fire "Value Recovery" Project DEA in the Black Hills National Forest. They feel that salvage logging doesn't effectively control insects and they're worried about the viability of some sensitive species.  This letter is not relevant to the Eiler project, as different species of concern are listed. Forest health is discussed in the Silviculture Report (pages 26-27, 32, and 35).
5-4	Black, Scott Hoffman Ph.D., Entomologist/Ecologist and Executive Director, The Xerces Society for Invertebrate Conservation 2005 <b>“Logging to Control Insects: The Science and Myths Behind Managing Forest Insect ‘Pests’”</b> <a href="http://www.xerces.org/guidelines-logging-to-control-insects/">http://www.xerces.org/guidelines-logging-to-control-insects/</a>	Commenter quoted the executive summary of this opinion paper (synthesis of independently reviewed research) on the importance of insects to a forest's function and some methods used to control these forest 'pests.'  The Eiler project does not attempt to remove all insects and diseases in the project area. Forest health is discussed in the Silviculture Report (pages 26-27, 32, and 35).
5-5	Black, S. H. Ph.D., D. Kulakowski Ph.D., B.R. Noon Ph.D., and D. DellaSala Ph.D. 2010. <b>“Insects and Roadless Forests: A Scientific Review of Causes, Consequences and Management Alternatives.”</b> National Center for Conservation Science & Policy, Ashland OR. <a href="http://nccsp.org/files/Insect%20and%20Roadless%20Forests.pdf">http://nccsp.org/files/Insect%20and%20Roadless%20Forests.pdf</a>	This report is on bark beetles and their current role in Colorado. In addition they examine the relationship of bark beetle outbreaks to fire risk, climate, and stand structure.  The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in Silviculture Report (pages 26-27, 32, and 35).

	Referenced Document	Forest Service Consideration/Response
5-6	Board on Agriculture. 1998 <b>“Forested Landscapes in Perspective: Prospects and Opportunities for Sustainable Management of America’s Nonfederal Forests”</b> <a href="http://books.nap.edu/openbook.php?record_id=5492&amp;page=205">http://books.nap.edu/openbook.php?record_id=5492&amp;page=205</a>	Book on forest health and sustainable management. The commenter quoted “It may be said that the standards by which we measure forest health are determined by the objectives we aspire to. Forests managed for maximum timber yield will require different criteria for judging forest health than those managed for old-growth forest purposes. Likewise, the health of forests adjacent to or in urban communities will be judged with criteria that are quite different from those used to judge forests in rural areas where population densities are quite low.”  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.
5-7	Calvert, Jeffrey Ph.D. <b>“A healthy forest needs bugs”</b> <i>California Forest Stewardship Program</i> , 2002 <a href="http://ceres.ca.gov/foreststeward/html/bugs.html">http://ceres.ca.gov/foreststeward/html/bugs.html</a>	Article on why a healthy forest needs "bugs", what they are, and basics about what they do.  The Eiler project does not attempt to remove all insects and diseases in the project area. Forest health is discussed in the Silviculture Report (pages 26-27, 32, and 35).
5-8	Drever, Ronnie Ph.D. and Josie Hughes 2001 <b>“Salvaging Solutions: Science-based management of BC’s pine beetle outbreak”</b> A report commissioned by the David Suzuki Foundation, Forest Watch of British Columbia (a project of the Sierra Legal Defence Fund), and Canadian Parks and Wilderness Society – B.C. Chapter <a href="http://www.davidsuzuki.org/files/Pine_beetle.final_w=cover2.pdf">http://www.davidsuzuki.org/files/Pine_beetle.final_w=cover2.pdf</a>	A report commissioned by the David Suzuki Foundation on the mountain pine beetle infestation of lodgepole pine in the central interior forest of British Columbia and how to minimize short-term losses from outbreaks without compromising the long-term integrity and sustainability of the ecosystems.  The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).
5-9	<b>“Forest Protection – Insects”</b> <i>Canfor Corporation</i> , 2007 <a href="http://www.canfor.com/treeschool/library/files/insects.asp">http://www.canfor.com/treeschool/library/files/insects.asp</a>	Unable to locate page via the weblink. The cited text discusses the essential roles insects play within the forest ecosystem.  The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).
5-10	Gerein, Keith <b>“Notorious pine beetle may be misunderstood”</b> <i>The Edmonton Journal</i> , March 21, 2009 <a href="http://www.chetwyndecho.net/Issues/Issue_13_March_27_2009IW_ORK_-_website_PDF.pdf/">http://www.chetwyndecho.net/Issues/Issue_13_March_27_2009IW_ORK_-_website_PDF.pdf/</a>	Newsletter article that the southern pine beetle may have healing powers in the form of a bacterium that it is associated with and they’re currently looking at the mountain pine beetle.  Outside the scope of the Eiler project. The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).

	Referenced Document	Forest Service Consideration/Response
5-11	Perry, David A. Ph. D. Testimony at a Senate Field Hearing on Forest Health August 29, 1994 <a href="http://www.subtleenergies.com/ormus/Fire/D_PERRY.htm">http://www.subtleenergies.com/ormus/Fire/D_PERRY.htm</a>	Testimony to Senate Field Hearing on Forest Health in Boise, Idaho on forest health and how it's affecting the Inland Northwest. The commenter quoted "Although healthy trees are prerequisite to healthy forest ecosystems, health encompasses much more than trees, and forest health correlates much more closely with structure and processes than with how fast trees are growing."  The Eiler Project does not attempt to remove the presence and incidence of insects and disease in the project area but strives to move vegetative conditions more reflective of a fire adapted ecosystem. The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).
5-12	Schowalter, Tim Ph.D., "Insect epidemics a natural path to forest health?" 27-May-1997, <i>OSU News</i> <a href="http://oregonstate.edu/dept/ncs/newsarch/1997/May97/goodbugs.htm">http://oregonstate.edu/dept/ncs/newsarch/1997/May97/goodbugs.htm</a>	Article from Oregon State University discussing the benefits of insects in forest ecosystems.  The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).
5-13	"Native Forest Insects and Diseases" A publication of the Canadian Forest Service, 2003 <a href="http://www.health.cfs.nrcan.gc.ca/BorealShield/nativeInsectsAndDiseases_e.html">http://www.health.cfs.nrcan.gc.ca/BorealShield/nativeInsectsAndDiseases_e.html</a>	Unable to locate page via the weblink. The cited text discusses the need to balance volume with the necessary ecological functions that insects provide in the forest.  The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).
5-14	Romme, W.H., J. Clement, J. Hicke, D. Kulakowski Ph.D. L.H. MacDonald, T.L. Schoennagel Ph.D., and T.T. Veblen. 2006 "Recent Forest Insect Outbreaks and Fire Risk in Colorado Forests: A Brief Synthesis of Relevant Research" <a href="http://www.cfri.colostate.edu/docs/cfri_insect.pdf">http://www.cfri.colostate.edu/docs/cfri_insect.pdf</a>	Commenter quote is summary of Question #7 of this report. This report focuses on bark beetle outbreaks in Colorado, with nine questions on the basic ecology of the outbreaks, and six possible treatments.  The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).
5-15	View of forest insects changing from pests to partners <i>Bio-Medicine.org</i> , 2001 <a href="http://news.bio-medicine.org/biology-news-2/View-of-forest-insects-changing-from-pests-to-partners-8940-1/">http://news.bio-medicine.org/biology-news-2/View-of-forest-insects-changing-from-pests-to-partners-8940-1/</a> <i>Science Blog</i> <a href="http://www.scienceblog.com/community/older/2001/C/200113890.html">http://www.scienceblog.com/community/older/2001/C/200113890.html</a>	Newspaper article on insect outbreaks and how they may be healthy for a forest by naturally thinning a forest that has become too crowded. Mr. Schowalter does agree that where fire suppression has created the crowded understory forest thinning followed by controlled fire can bring the forest back to more historic conditions. He feels that as these insect systems become better understood, it should be possible to work with the insects, rather than against them, to achieve conservation goals and healthier ecosystems.  The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).

	Referenced Document	Forest Service Consideration/Response
5-16	Black, S.H. Ph.D. 2005. <b>Logging to Control Insects: The Science and Myths Behind Managing Forest Insect “Pests.” A Synthesis of Independently Reviewed Research.</b> The Xerces Society for Invertebrate Conservation, Portland, OR. <a href="http://www.xerces.org/wp-content/uploads/2008/10/logging_to_control_insects.pdf">http://www.xerces.org/wp-content/uploads/2008/10/logging_to_control_insects.pdf</a>	This is a paper (synthesis of independently reviewed research) on the importance of insects to a forest's function and some methods used to control these forest “pests”. The Eiler Project does not attempt to remove the presence and incidence of insects and disease in the project area but strives to move vegetative conditions more reflective of a fire adapted ecosystem. The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).
5-17	Bond, Monica L., Derek E. Lee, Curtis M. Bradley and Chad T. Hanson Ph.D. <b>“Influence of Pre-Fire Tree Mortality on Fire Severity in Conifer Forests of the San Bernardino Mountains, California”</b> <i>The Open Forest Science Journal</i> , 2009, 2, 41-47 <a href="http://www.biologicaldiversity.org/publications/papers/Bond_et_al.pdf">http://www.biologicaldiversity.org/publications/papers/Bond_et_al.pdf</a>	This paper looks at whether pre-fire tree mortality (from drought and insects, specifically western pine beetle) increased fire severity in coniferous forest stands in California after ignition occurred. The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).
5-18	Boxall, Bettina <b>“Bark beetles may kill trees, but that may not raise fire risk”</b> <i>Los Angeles Times</i> , September 26, 2010 <a href="http://articles.latimes.com/2010/sep/26/nation/la-na-beetle-fire-20100926">http://articles.latimes.com/2010/sep/26/nation/la-na-beetle-fire-20100926</a>	Newspaper article on bark beetles killing trees, but mentions that bark beetle attacks actually reduce the risk of crown fires by thinning tree crowns. The effects of the treatments proposed in the Eiler project is discussed in Chapter 3, Silviculture and the Fire and Fuels sections.
5-19	Frey, David <b>“Logging Won’t Halt Beetles, Fire, Report Says”</b> <i>NewWest Travel and Outdoors</i> , 3/03/10 <a href="http://www.newwest.net/topic/article/logging_wont_halt_beetles_fire_report_says/C41/L41/">http://www.newwest.net/topic/article/logging_wont_halt_beetles_fire_report_says/C41/L41/</a>	David Frey is writing about another report authored by Noon, Black and DellaSalla which states that climate is the leading driver of fire not beetle kill and that thinning should be focused on Wildland Urban Interface. The original report was not referenced or linked so could not review the original article. No thinning is proposed in the Eiler Project.
5-20	Gable, Eryn <b>“Battling beetles may not reduce fire risks – report”</b> <i>Land Letter</i> , March 4, 2010 <a href="http://www.xerces.org/2010/03/04/battling-beetles-may-not-reduce-fire-risks-report/">http://www.xerces.org/2010/03/04/battling-beetles-may-not-reduce-fire-risks-report/</a>	Article about large scale extensive areas of dead trees from bark beetle attacks have led to widespread concern about increased fire risk. However, one of the report's author's states best available science says that climate, particularly drought, leads to fire not beetle attacks and that limited funds should be used to reduce the risk of fire to WUIs. The Fire and Fuels section of the EA discusses the projects impacts on fuel levels and the probability of loss due to a wildfire.

	Referenced Document	Forest Service Consideration/Response
5-21	<p>Kulakowski, Dominik Ph.D., Assistant Professor, Clark University            Testimony before the Subcommittee on Public Lands and Forests of            the Energy and Natural Resources Committee of the United States            Senate April 21, 2010  <a href="http://energy.senate.gov/public/_files/KulakowskitestimonyonS2798042110.pdf">http://energy.senate.gov/public/_files/KulakowskitestimonyonS2798042110.pdf</a></p>	<p>Testimony on the Proposed National Forest Insect and Disease Emergency Act (S.2798) regarding the interactions between outbreaks of bark beetles and fires. Forests of lodgepole pine and spruce-fir are prone to high-severity fires during drought conditions, regardless of the influence of bark beetle outbreaks. Emphasis should be placed on removing flammable material from the immediate vicinity of homes and communities and by using fire resistant building materials, not by modifying forest structure in remote areas that have been affected by outbreaks.</p> <p>The Eiler project area currently does not have epidemic levels of beetle infestations therefore the recommendations or conclusions in this paper do not apply to the Eiler project. The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).</p>
5-22	<p>Logan, Jesse A. Ph.D. and James A. Powell Ph.D. Ghost Forests, Global Warming and the Mountain Pine Beetle (Coleoptera: Scolytidae) AMERICAN ENTOMOLOGIST • Fall 2001  <a href="http://www.usu.edu/beetle/documents/Logan_Powell01.pdf">http://www.usu.edu/beetle/documents/Logan_Powell01.pdf</a></p>	<p>This paper is looking at lodgepole pine and the mountain pine beetle, how they interact, at what elevations, and what is the timeframe between episodes (outbreaks). Current outbreaks are confined to the lower elevations; however with climate change they could reach a higher elevation band than previously thought.</p> <p>The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).</p>
5-23	<p><b>“Science should lead pine beetle epidemic solutions”</b> Star-Tribune            Editorial Board Wyoming Star Tribune, October 3, 2010  <a href="http://trib.com/news/opinion/editorial/article_f87d7db9-ed2a-5620-8d66-20556935c592.html">http://trib.com/news/opinion/editorial/article_f87d7db9-ed2a-5620-8d66-20556935c592.html</a></p>	<p>This article discusses the epidemic levels of beetle infestation and resulting mortality in the lodgepole pine systems in Wyoming.</p> <p>The Eiler project area currently does not have epidemic levels of beetle infestations therefore the recommendations or conclusions in this paper do not apply to the Eiler project. The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).</p>

	Referenced Document	Forest Service Consideration/Response
5-24	<p>Link to video  <a href="http://svs.gsfc.nasa.gov/vis/a010000/a010600/a010634/G2009-098_Wildfire_and_Beetles_ipod_lg.m4v">http://svs.gsfc.nasa.gov/vis/a010000/a010600/a010634/G2009-098_Wildfire_and_Beetles_ipod_lg.m4v</a></p> <p>Shoemaker, Jennifer, NASA Goddard Space Flight Center “<b>Landsat Reveal Surprising Connection Between Beetle Attacks, Wildfire</b>”            Posted at the NASA WEB site, Sep. 8, 2010  <a href="http://landsat.gsfc.nasa.gov/news/news-archive/sci_0031.html">http://landsat.gsfc.nasa.gov/news/news-archive/sci_0031.html</a></p>	<p>Video on the correlation between the bark beetle infestations, tree mortality and the increase in risk of wildfire in lodgepole pine stands.</p> <p>Paper on mountain pine beetles and their relationship to fire risk. Utilizing LANDSAT data the researchers made maps of hard hit beetle kill areas, ground-truthed them to verify what they saw was what was happening on the ground and then compared them to recent fire maps. Their preliminary analysis showed that large fires do not appear to occur more often or burn more severe in forest tracts with beetle damage.</p> <p>The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).</p>
5-25	<p>Tinker, Daniel B. Ph.D. et al., 2010 “<b>Reciprocal interactions between bark beetles and wildfire in subalpine forests: landscape patterns and the risk of high-severity fire</b>” A research paper sponsored in part by the Joint Fire Science Program  <a href="http://landscape.zoology.wisc.edu/October%202009%20updates/JFS_P_FnlRep_30Sept2009.pdf">http://landscape.zoology.wisc.edu/October%202009%20updates/JFS_P_FnlRep_30Sept2009.pdf</a></p>	<p>This research paper, focusing on the Greater Yellowstone Ecosystem, is about the interactions of the bark beetle outbreaks and fire. It poses the question, what influences are there on fire behavior, bark beetle dynamics, and ecosystem infrastructure. The commenter has quoted several of the management implications that research will need to continue to examine as these insect systems become better understood. It should be possible to work with the insects, rather than against them, to achieve conservation goals and healthier ecosystems.</p> <p>The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).</p>
5-26	<p>Wuerthner, George <i><b>Pine Beetle EArS Misplaced</b></i> <i>Helena Independent Record</i>, March 25, 2010  <a href="http://helenair.com/news/opinion/article_f3d671f0-37c9-11df-921d-001cc4c002e0.html">http://helenair.com/news/opinion/article_f3d671f0-37c9-11df-921d-001cc4c002e0.html</a></p>	<p>Article that discusses the relationships between bark beetle infestations, tree mortality and likelihood of increased wildfire risk in lodgepole pine communities.</p> <p>The current presence of and proposed susceptibility to bark beetles under the Eiler project alternatives is disclosed in the Silviculture Report (pages 26-27, 32, and 35).</p>
<b>Attachment # 8-</b> <b>The Natural Resources in the Forest Benefit from Fire</b>		
8-1	<p>Campbell, John L. Ph.D, Dan C. Donato, Joe B. Fontaine J. Boone Kauffman Ph.D., Beverly E. Law Ph.D., and Doug Robinson "Biscuit Fire Study." Oregon State University Department of Forest Science Terrestrial Ecosystem Research and Regional Analysis. 2003.  <a href="http://zircote.forestry.oregonstate.edu/terra/biscuit.htm">http://zircote.forestry.oregonstate.edu/terra/biscuit.htm</a></p>	<p>This document is a summary of a study that would look into the effects of wildfire, subsequent burns, and postfire logging on carbon pools/transfer, vegetation, and wildlife. The selected text states that burned areas are important habitat types for a variety of species and highlights the importance of snags and coarse wood on the landscape.</p> <p>The Eiler Project does not dispute this statement.</p>

	Referenced Document	Forest Service Consideration/Response
8-2	Chronicle Staff, "Yellowstone fires have potential to grow much larger" BozemanDailyChronicle.com, September 24, 2009 <a href="http://bozemandailychronicle.com/articles/2009/09/25/news/70fires.txt">http://bozemandailychronicle.com/articles/2009/09/25/news/70fires.txt</a>	This document is a news article discussing the several fires burning within Yellowstone National Park in the summer of 2009. The selected text highlights that the Yellowstone ecosystem is adapted to fire and that fire is an important natural process.  The Eiler Project does not dispute this statement.
8-3	Congressional Research Service Report "Forest Fire/Wildfire Protection" February 14, 2005 <a href="http://www.coloradofirecamp.com/congressional_research/forest-fire-wildfire-effects.htm">http://www.coloradofirecamp.com/congressional_research/forest-fire-wildfire-effects.htm</a>	This excerpt is from a Congressional Research Service Report to Congress. The document talks about the many effects of wildfire. More specifically, the quoted text talks about the effects of wildfire on plants and animals.  The Eiler Project does not dispute this statement. The effects of the Eiler project on plants and animals were included in the EA analysis.
8-4	"Dead Trees and Healthy Forests : Is Fire Always Bad?" The Wilderness Society, March 2003 <a href="http://www.wildfirelessons.net/documents/Dead-Trees-and-Healthy-Forests.pdf">http://www.wildfirelessons.net/documents/Dead-Trees-and-Healthy-Forests.pdf</a>	The selected quotation talks about how and why fire – and other natural disturbances – is an important process for forest renewal. Further, it very generally describes the life cycle of forested landscapes.  The Eiler Project does not dispute this statement.  The rest of the document speaks to thinning, dead trees, and salvage logging. Thinning is not proposed in this project. The importance of snags and coarse wood is described above in comment 1-40 and in the Wildlife BE.  Proposed salvage logging strives to reduce a portion of the dead trees and manage the uncharacteristic fuel loads in the project area. This reduction of future down fuel loads will allow future trees to more readily withstand a fire by reducing heat generated by a potential ground fire.
8-5	Duncan, Sally Ph.D. "Postfire Logging: Is it Beneficial to a Forest?" USDA Forest Service. PNW Science Findings issue 47. October 2002. <a href="http://www.fs.fed.us/pnw/sciencef/scifi47.pdf">http://www.fs.fed.us/pnw/sciencef/scifi47.pdf</a>	This document explores many of the effects of postfire logging and makes several recommendations of how effects may be limited. The results of the Summit study on postfire logging suggest that "logging can be done, with acceptable effects on soils and minimal sediment transport off-site, provided the right equipment and approach are used." In general, the Eiler Project has very gentle slopes and most of the material can be accessed by using the existing road system and a few additional skid trails to concentrate disturbance. The cited text describes the variety of roles that snags can play after a wildfire and explains that although the habitat has changed, different bird communities can still use, and in fact may prefer, the altered habitat.  The Eiler Project does not dispute these statements; therefore, this does not represent an opposing view.

	Referenced Document	Forest Service Consideration/Response
8-6	<p>"Fighting fire in the forest" CBC News, June 17, 2009  <a href="http://www.cbc.ca/canada/story/2009/06/17/f-forest-fires.html">http://www.cbc.ca/canada/story/2009/06/17/f-forest-fires.html</a></p>	<p>This article talks about several aspects regarding fighting fires in Canada, including fire suppression history, tactics, and resources. A small section of this article discusses the ecological benefits of fire, which represents the cited text.</p> <p>The Eiler Project does not dispute this statement.</p> <p>The last paragraph in the cited text refers to the idea of letting wildfires burn unless people or neighboring lands are threatened. Addressing fire suppression policy is not the purpose of the Eiler Project and is beyond the scope of this project.</p>
8-7	<p>"Forest Fires" The Environmental Literacy Council, 2008  <a href="http://www.enviroliteracy.org/article.php/46.html">http://www.enviroliteracy.org/article.php/46.html</a></p>	<p>This article discusses how wildfires can benefit an ecosystem and reset the successional pathways in a forest. The cited text describes how wildfires are natural events and part of the renewal process of a forest.</p> <p>The Eiler Project does not dispute this statement.</p>
8-8	<p>"Forest Fire/Wildfire Protection" Congressional Research Service Report for Congress, February 14, 2005  <a href="http://www.coloradofirecamp.com/congressional_research/forest-fire-wildfire-effects.htm">http://www.coloradofirecamp.com/congressional_research/forest-fire-wildfire-effects.htm</a></p>	<p>This excerpt is from a Congressional Research Service Report to Congress. The document talks about the many effects of wildfire. More specifically, the quoted text talks about the effects of wildfire on plants and animals.</p> <p>The Eiler Project does not dispute this statement. The effects of the Eiler project on plants and animals was analyzed in the EA.</p>
8-9	<p>Franklin, Jerry F. Ph.D. and James K. Agee Ph.D. "Forging a Science-Based National Forest Fire Policy." Issues in Science and Technology Fall 2003.  <a href="http://inr.oregonstate.edu/download/forging_a_science_based_national_forest_fire_policy.pdf">http://inr.oregonstate.edu/download/forging_a_science_based_national_forest_fire_policy.pdf</a></p>	<p>This paper discusses the need for a comprehensive, science-based, National Forest fire policy and the various aspects that should be considered in developing this policy. This is outside the scope of the EA. The paper also states that remaining live trees, standing dead trees, and logs on the ground are biological legacies that will enrich the regenerated forest. Within the logged stands, snag and downed log retention is included in project design.</p>
8-10	<p>Gorte, Ross W. Ph.D. from a CRS report for Congress, January 18, 2006  <a href="http://www.ncseonline.org/nle/crsreports/06Feb/RL30755.pdf">http://www.ncseonline.org/nle/crsreports/06Feb/RL30755.pdf</a></p>	<p>This document is a congressional research service report to Congress discussing forest fires and wildfire protection. The cited text occurs in a part of the document that describes the evolution of a federal fire policy.</p> <p>The Eiler Project does not dispute this statement.</p> <p>This part of the document discusses the benefits of fire to regeneration, wildlife habitat, and reducing the spread of noxious weeds. The effects of the Eiler Project on these topics was analyzed in the EA.</p>

	Referenced Document	Forest Service Consideration/Response
8-11	<p>Gregory, Lisa Dale Ph.D. "Wildland Fire Use: An Essential Fire Management Tool" A Wilderness Society Policy and Science Brief December 2004  <a href="http://wilderness.org/Library/Documents/upload/ScienceBrief-WildlandFireUseEssentialTool.pdf">http://wilderness.org/Library/Documents/upload/ScienceBrief-WildlandFireUseEssentialTool.pdf</a></p>	<p>This quotation summarizes the role and benefits of fire within certain ecosystems. The role and benefits of wildland fire on the landscape are not disputed.</p> <p>The broader context of this document discusses Wildland Fire Use as a management practice. Managed wildfire is not proposed in this project.</p>
8-12	<p>Hanson, Chad Ph.D. February 2, 2010 "New Report Debunks Myth of 'Catastrophic Wildfire' "  <a href="http://johnmuirproject.org/documents/Myth%20of%20Catastrophic%20Wildfire%20Media%20Release.pdf">http://johnmuirproject.org/documents/Myth%20of%20Catastrophic%20Wildfire%20Media%20Release.pdf</a></p>	<p>This document claims to debunk the myth of catastrophic wildfire. The cited text suggests that recently burned areas can be beneficial for wildlife and that postfire logging can threaten these species.</p> <p>The Eiler Project recognizes the ecological benefits of snags and coarse wood for wildlife and would retain them to desired conditions outlined in the EA.</p>
8-13	<p>Hutto, Richard L. Ph.D. "The Ecology of Severely Burned Forests" Counterpunch, July 19 / 20, 2008  <a href="http://www.counterpunch.org/hutto07192008.html">http://www.counterpunch.org/hutto07192008.html</a></p>	<p>This article explores the ecosystems of burned forests. The author goes on to discuss some of the plants and animals that can flourish in these ecosystems. The selected text encourages the reader to recognize that postfire logging can remove some of the biological legacies that snags provide in a postfire environment.</p> <p>The effects of the Eiler project on plants and animals was analyzed in the EA.</p>
8-14	<p>Karr, James R. Ph.D., "Nature doesn't Benefit from Logging Fire-Damaged Lands". Op-Ed Tacoma News Tribune. December 8, 2005.  <a href="http://www.docstoc.com/docs/122585663/Nature-doesn%EF%BF%BDt-benefit-from-logging-fire-damaged-lands">http://www.docstoc.com/docs/122585663/Nature-doesn%EF%BF%BDt-benefit-from-logging-fire-damaged-lands</a></p>	<p>Op-ed piece against salvage logging.</p> <p>The Eiler project documents a full environmental review informed by science. The concepts of disturbance ecology and post-fire vegetation recovery were taken into consideration in the development of the project design. The long-term desired condition for the project area is based on reference conditions as documented in multiple scientific studies. Salvage logging is identified in the forest plan as an appropriate action to take place following fires. Project design features and best management practices have been incorporated to reduce potential adverse effects to soil resources and maintain adequate amounts of snags and coarse woody debris to provide for wildlife habitat.</p>
8-15	<p>Mark, Jason "Mission Impossible" Earth Island Journal, winter 2009  <a href="http://www.earthisland.org/journal/index.php/eij/article/mission_impossible/">http://www.earthisland.org/journal/index.php/eij/article/mission_impossible/</a></p>	<p>This article discusses the merits of spending federal money to fight fires. It also discusses the effectiveness of firefighting efforts and questions whether fire suppression is the most efficient use of taxpayer dollars. The cited text indicates that fire is a normal part of the ecosystems in certain areas and that it provides periodic disturbance to the landscape.</p> <p>The Eiler Project does not dispute this statement.</p>

	Referenced Document	Forest Service Consideration/Response
8-16	Marks, Raissa Fish and Wildlife Habitat Management Leaflet number 37 Published by the Natural Resources Conservation Service, USDA, April 2006 <a href="ftp://ftp-fc.sc.egov.usda.gov/NHQ/ecs/Wild/ImportofDisturbInHabMgt.pdf">ftp://ftp-fc.sc.egov.usda.gov/NHQ/ecs/Wild/ImportofDisturbInHabMgt.pdf</a>	This document is a brochure developed by the NRCS to inform private landowners about the ecological importance of disturbances on the landscape. The Eiler Project does not dispute the importance of disturbances in the landscape.
8-17	Martinez, Lori “Applications of Tree-Ring Dating” Laboratory of Tree-Ring Research at the University of Arizona February, 2000 <a href="http://www.ltrr.arizona.edu/lorim/apps.html">http://www.ltrr.arizona.edu/lorim/apps.html</a>	This document discusses dendrochronology, or tree ring dating, and how it can be applied to learn about disturbance and climate events of the past. The selected text discusses how fires were common, natural disturbance events in many forests of the world, and briefly references fire suppression as having a negative effect on these natural fire regimes. The Forest Service does not dispute the need to reintroduce fire into the landscape. Prescribed fire, including underburning, is included in the Eiler Project.
8-18	Nappi, Antoine Ph.D., Pierre Drapeau Ph.D., Jean-François Giroux Ph.D. and Jean-Pierre Savard Ph.D. “Snag use by foraging black-backed woodpeckers ( <i>Picoides articus</i> ) in a recently burned eastern boreal forest.” <i>The Auk</i> 120(2): 505-511. 2003. <a href="http://www.borealcanada.ca/research_arc_hot_e.cfm">http://www.borealcanada.ca/research_arc_hot_e.cfm</a>	This document discusses the importance of snags to certain woodpecker species, such as the black-backed woodpecker. Black-backed woodpeckers were taken into consideration during project design. 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.
8-19	Noss, Reed F. Ph.D., Jerry F. Franklin Ph.D., William Baker, Ph.D., Tania Schoennagel, Ph.D., and Peter B. Moyle, Ph.D. “Ecological Science Relevant to Management Policies for Fire-prone Forests of the Western United States” <i>Society for Conservation Biology</i> , February 24, 2006 <a href="http://www.nifc.gov/fuels/downloads/planning/EcologicalScience.pdf">http://www.nifc.gov/fuels/downloads/planning/EcologicalScience.pdf</a>	This document looks at the management of fire-prone forests and discusses a variety of management practices prior to, during, and after wildfires. The cited text refers to the ecological importance of trees that survive a fire. The Eiler Project recognizes the importance of these trees and only proposes to harvest dead and dying trees.
8-20	Reice, Seth, Ph.D. from a press conference with Senator Robert Torricelli, April 28, 1998, <a href="http://www.saveamericasforests.org/news/ScientistsStatement.htm">http://www.saveamericasforests.org/news/ScientistsStatement.htm</a>	This document is Dr. Reice’s statement in support of the Act to Save America’s Forests. He highlights that disturbances such as fire are natural and can be good for the forest. The Eiler Project does not dispute this statement. Dr. Reice specifically speaks about how fire suppression can lead to a disturbance of natural succession. Fire suppression is outside the scope of the Eiler Project.

	Referenced Document	Forest Service Consideration/Response
8-21	<p>“Rising from the ashes: Forest fires give way to new growth” Science Buzz, May 2007 (supported by the National Science Foundation)  <a href="http://www.sciencebuzz.org/blog/rising_from_the_ashes_forest_fires_give_way_to_new_growth">http://www.sciencebuzz.org/blog/rising_from_the_ashes_forest_fires_give_way_to_new_growth</a></p>	<p>This article talks about the several different ways a forest can regenerate after a fire, depending on several factors such as weather. Specific ecological benefits regarding the black-backed woodpecker were identified in the selected text.</p> <p>The Eiler Project does not dispute this statement.</p>
8-22	<p><b>Wildfire benefits Opposing View #22</b> - “Rotting logs are a very common EAture of wild ecosystems. Rotting logs recycles nutrients back into the soil and provides a healthy habitat for a wide range of insects, plants, and animals. Rotting log provides homes for small mammals, insects, worms, and spiders. The rich, organic soil provides a unique habitat for fungi, tree seedlings, wildflowers, mosses, and ferns.”  “Rotting Wood and how it affects the Environment”  MamasHealth.com <a href="http://www.mamashealth.com/saveearth">http://www.mamashealth.com/saveearth</a></p>	<p>This article is from a blog that briefly discusses the role of snags, their importance to woodpeckers, and the importance of rotting coarse woody debris. The selected text describes some of the roles that coarse woody debris can play; however, this part of the document is describing rotting logs in the context of a garden.</p> <p>The Eiler Project does not dispute this statement.</p>
8-23	<p>Schneider, Gary “Dead trees (they're still full of life!)” 2008 Macphail Woods Ecological Forestry Project  <a href="http://www.macphailwoods.org/wildlife/deadtrees.html">http://www.macphailwoods.org/wildlife/deadtrees.html</a></p>	<p>This document discusses various ways that owners of timbered lands may choose to manage their lands. The highlighted text points out some of the benefits of snags to wildlife.</p> <p>The Eiler Project does not dispute this statement.</p>
8-24	<p>Smith, Jane Kapler, ed. "Wildland Fire in Ecosystems: Effects of Fire on Fauna" USDA Forest Service Rocky Mountain Research Station. General Technical Report RMRS-GTR-42-volume 1. January 2000.  <a href="http://nps.gov/fire/download/fir_eco_wildlandfireJan2000.pdf">http://nps.gov/fire/download/fir_eco_wildlandfireJan2000.pdf</a></p>	<p>This document describes a variety of effects of fire on wildlife within a variety of historical fire regimes. The cited text is found on page 33 under the section describing stand replacing (lethal) fire regimes.</p> <p>The Eiler Project does not dispute these statements about the effects of fire.</p>
8-25	<p>Tanner, G.W. Ph.D., W.R. Marion Ph.D., and J.J. Mullahey Ph.D.  “Understanding Fire: Nature's Land Management Tool” A Florida Cooperative Extension Service publication, July, 1991  <a href="http://edis.ifas.ufl.edu/UW124">http://edis.ifas.ufl.edu/UW124</a></p>	<p>This document is a brochure distributed by the Cooperative Extension Service at the University of Florida informing the public of the ecological benefits of fire in Florida ecosystems. While the ecosystems of the region are vastly different, the concept of fire as a natural disturbance and as part of the ecosystem is relevant, and not disputed in the Eiler Project.</p>

	Referenced Document	Forest Service Consideration/Response
8-26	Thomas, Jack Ward Ph.D., US Forest Service Chief "Dead Wood: From Forester's Bane to Environmental Boon". Keynote address at the symposium on ecology and management of deadwood in western forests, Reno, Nevada. 1999. <a href="http://www.fs.fed.us/psw/publications/documents/gtr-181/003_Thomas.pdf">http://www.fs.fed.us/psw/publications/documents/gtr-181/003_Thomas.pdf</a>	This document is a keynote address from retired Forest Service Chief Jack Ward Thomas. This document chronicles the ideas about down, dead woody material in the practice of forestry and the Forest Service. The selected text, when taken in context, refers to the common conception of down wood in the environment prior to 1970. The author then states that, "By the 1970s, researchers and forest managers were becoming increasingly aware of the role of dead wood in the ecology of the managed forest." The Eiler Project does not dispute these statements.
8-27	Verneti, Toni "Are You Wildfire Aware?" June 07, 2005 <a href="http://www.googobits.com/articles/p0-547-are-you-wildfire-aware.html">http://www.googobits.com/articles/p0-547-are-you-wildfire-aware.html</a>	This document explores many aspects of forest fires and fire management. The cited text describes fire as being a part of the environment and discusses some of the benefits associated with fires, such as regulating the fire regime. The Eiler Project does not dispute these statements.
8-28	Voss, René, Ph.D. "Getting Burned by Logging," July 2002 The Baltimore Chronicle <a href="http://www.baltimorechronicle.com/firelies_jul02.shtml">http://www.baltimorechronicle.com/firelies_jul02.shtml</a>	This is an opinion article encouraging people to support the National Forest Protection and Restoration Act. The quotation states the role fire plays in the ecology of Western forests. The contents of the selected text are not disputed.
8-29	"Wildfire in British Columbia" BC Forest Facts, September 2003 <a href="http://www.llbc.leg.bc.ca/public/PubDocs/bcdocs/364421/wildfire_bc.pdf">http://www.llbc.leg.bc.ca/public/PubDocs/bcdocs/364421/wildfire_bc.pdf</a>	This document is a brochure that discusses wildfire in British Columbia. It discusses how wildfires can be managed and discusses fire's role in the environment. The selected text is taken from the introduction and summarizes the benefits of fire on the forest, plants, and animal life. The Eiler Project does not dispute these statements.
8-30	Woodford, Riley "Regeneration Following Fire Creates Fertile Habitat for Wildlife" Alaska Fish and Wildlife News, August 2003 <a href="http://www.wildlife.alaska.gov/index.cfm?adfg=wildlife_news.view_article&amp;issue_id=5&amp;articles_id=60">http://www.wildlife.alaska.gov/index.cfm?adfg=wildlife_news.view_article&amp;issue_id=5&amp;articles_id=60</a>	This document was published as an educational document to inform the public that fire is not entirely negative, and to shine a light on the several positive aspects of wildland fire. The Eiler Project does not dispute these statements.

	Referenced Document	Forest Service Consideration/Response
8-31	Wuerthner, George. "Logging, thinning would not curtail wildfires" The Register - Guard (Eugene Ore.), December 26, 2008 <a href="http://wuerthner.blogspot.com/2008/12/logging-thinning-would-not-curtail.html">http://wuerthner.blogspot.com/2008/12/logging-thinning-would-not-curtail.html</a>	This is an opinion article in response to a guest viewpoint presented in The Register-Guard, the daily newspaper for Eugene, Oregon. The guest viewpoint discusses wildfires and why a stronger agency role is needed in assisting communities to develop, implement, and monitor local efforts to reduce hazardous fuels on public and private land.  The selected text states that fire is a natural part of many forested ecosystems and can increase biodiversity. It further goes on to suggest that wildfire is underrepresented on the landscape and will likely continue to increase with global warming.  The Eiler Project does not dispute these statements.
8-32	Published by the Center for Biological Diversity and the John Muir Project, January 2014 <a href="http://www.biologicaldiversity.org/species/birds/black-backed_woodpecker/pdfs/Nourished_by_Wildfire.pdf">http://www.biologicaldiversity.org/species/birds/black-backed_woodpecker/pdfs/Nourished_by_Wildfire.pdf</a>	This report analyzes the Rim fire in relation to the relevant biological science and recommends: Rather than industrial scale salvage logging, post-fire management should focus on activities that benefit forest health, water quality and the many species that depend upon fire for their very existence.  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.
<b>Attachment # 9a</b> <b>Herbicides Containing Glyphosate should Never be Applied to Areas where Mammals (including humans), Fish, or Birds Might be Present: Research shows Even Casual Contact with the Chemical Causes Serious Health Problems</b>		
9a-1 to 30	These articles were not reviewed	No herbicide use is proposed on NFS lands under the Eiler Project.
<b>Attachment # 10-</b> <b>Every Recent Survey Assessing the Public Acceptance of Commercial Timber Harvest on Public Land shows that the Majority Disapproves of it. This eliminates the massive community revenue from recreation-related pursuits.</b>		
10-1	<b>Link to Poll:</b> <a href="http://www.brspoll.com/Reports/report-final.pdf">http://www.brspoll.com/Reports/report-final.pdf</a>	The cited question does not ask whether people oppose logging. It asks about the desire for types of recreation. The Eiler project is not proposing logging within the designated Wilderness or Inventoried Roadless Area.

	Referenced Document	Forest Service Consideration/Response
10-2	<b>Link to Poll:</b> <a href="http://www.forestwatch.org/content.php?id=53">http://www.forestwatch.org/content.php?id=53</a>	The cited question does not ask whether people oppose logging. It asks about retaining wilderness areas. The Eiler project is not proposing logging within the designated Wilderness or Inventoried Roadless Area.
10-3	<b>Link to Poll:</b> <a href="http://www.sdearthtimes.com/et0998/et0998s6.html">http://www.sdearthtimes.com/et0998/et0998s6.html</a>	The Multiple-Use Sustained Yield Act of 1960 requires that national forest lands shall be administered for a variety of multiple uses, and that all resources shall be maintained as renewable in perpetuity for regular periodic output of several products and services at a sustainable level. Under this Act the Forest Service is authorized to sell timber and reforest National Forest System lands.  National Forest Management Act of 1976 (NFMA) including its amendments to the Forest and Rangeland Renewable Resources Planning Act of 1974 state that it is the policy of the Congress that all forested lands in the National Forest System be maintained in appropriate forest cover with species of trees, degree of stocking, rate of growth and conditions of stand designed to secure the maximum benefits of multiple use sustained yield management in accordance with land management plans.
10-4	<b>Link to Poll:</b> <a href="http://www.publicland.ca/news/040203.html">http://www.publicland.ca/news/040203.html</a>	The cited question does not ask whether people oppose logging. It asks about the desire for Canada to designate more wilderness. The Eiler project is not proposing logging within the designated Wilderness or Inventoried Roadless Area.
10-5	<b>Link to Poll:</b> <a href="http://crs.uvm.edu/wildpoll/exec_summ.pdf">http://crs.uvm.edu/wildpoll/exec_summ.pdf</a>	See answer to 10-3
10-6	<b>Link to Poll:</b> <a href="http://www.unc.edu/news/archives/feb99/carpoll3.htm">http://www.unc.edu/news/archives/feb99/carpoll3.htm</a>	See answer to 10-3
10-7	<b>Link to Poll:</b> <a href="http://www.wildlaw.org/newsletters/July2000.htm">http://www.wildlaw.org/newsletters/July2000.htm</a>	See answer to 10-3
10-8	<b>Link to Poll:</b> <a href="http://www.conservationnw.org/library/newsletter/newsletter-pdfs/fall-ecosystemnews-2001.pdf">http://www.conservationnw.org/library/newsletter/newsletter-pdfs/fall-ecosystemnews-2001.pdf</a>	The Eiler project is not proposing treatment in an old-growth area
10-9	<b>Link to Poll:</b> <a href="http://www.johnmuirproject.org/resources-summary-of-polling-data-1998.html">http://www.johnmuirproject.org/resources-summary-of-polling-data-1998.html</a>	See answer to 10-3
10-10	<b>Link to Poll:</b> <a href="http://www.johnmuirproject.org/resources-summary-of-polling-data-1998.html">http://www.johnmuirproject.org/resources-summary-of-polling-data-1998.html</a>	See answer to 10-3
10-11	<b>Link to Poll:</b> <a href="http://community.seattletimes.nwsourc.com/archive/?date=19990806&amp;slug=2975897">http://community.seattletimes.nwsourc.com/archive/?date=19990806&amp;slug=2975897</a>	See answer to 10-3

	Referenced Document	Forest Service Consideration/Response
10-12	<b>Link to Poll:</b> <a href="http://www.nationalaglawcenter.org/assets/bibarticles/brownharris_forest.pdf">http://www.nationalaglawcenter.org/assets/bibarticles/brownharris_forest.pdf</a>	See answer to 10-3
10-13	<b>Link to Poll:</b> <a href="http://www.lcvef.org/programs/polling-research/state-polling/LCVEF_Washington-Poll_Oct1999.pdf">http://www.lcvef.org/programs/polling-research/state-polling/LCVEF_Washington-Poll_Oct1999.pdf</a>	See answer to 10-3
10-14	<b>Link to Poll:</b> <a href="http://www.fs.fed.us/rm/pubs/rmrs_gtr095.pdf">http://www.fs.fed.us/rm/pubs/rmrs_gtr095.pdf</a> USDA Forest Service RMRS GTR-95	See answer to 10-3
10-15	<b>Link to Poll:</b> <a href="http://www.gilawilderness.com/local/roadsurvey2.htm">http://www.gilawilderness.com/local/roadsurvey2.htm</a>	See answer to 10-3
10-16	<b>Link to Poll:</b> <a href="http://www.newwest.net/topic/article/poll_rockies_voters_want_stronger_economy_stricter_environmental_regs/C37/L37/">http://www.newwest.net/topic/article/poll_rockies_voters_want_stronger_economy_stricter_environmental_regs/C37/L37/</a>	The cited question does not ask whether people oppose logging. It asks about retaining wilderness areas. The Eiler project is not proposing logging within the designated Wilderness or Inventoried Roadless Area.
10-17	Total news release text at: <a href="http://www.idahooutdoorbusinesscouncil.org/news/2013/2/14/outdoor-recreation-in-idaho-supports-77000-jobs-63-billion-i.html">http://www.idahooutdoorbusinesscouncil.org/news/2013/2/14/outdoor-recreation-in-idaho-supports-77000-jobs-63-billion-i.html</a>	Recreation and public use was considered in planning the Eiler project. A need of the Eiler project is “to reduce safety hazards in high use areas including along portions of National Forest System roads, trails, trailheads, and recreation sites... High use areas include: (1) the Hat Creek Recreation area along Highway 89 and Honn Campground, (2) forest roads that access the Tamarack and Cypress trailheads of the Thousand Lakes Wilderness, and (3) forest roads that access private timberland found within the fire perimeter. Other public use in this area includes hunting, fishing, hiking, camping, woodcutting, and sightseeing.” (EA, page 8)
10-18	Total news release text at: <a href="http://wdfw.wa.gov/news/feb1014a/">http://wdfw.wa.gov/news/feb1014a/</a>	See answer to 10-17
<b>Attachment # 14</b>		
<b>Dead and Dying Trees are Important to the Survival of many Natural Resources in the Forest and should not be Removed to Provide Opportunities for Corporate Profit or to Produce Private Industrial Tree-Farm Conditions</b>		

	Referenced Document	Forest Service Consideration/Response
14-1	Bartels, Ronald, John D. Dell, Richard L. Knight Ph.D. and Gail Schaefer "Dead and Down Woody Material" Animal Inn <a href="http://www.fs.fed.us/r6/nr/wildlife/animalinn/hab_8ddwm.htm">http://www.fs.fed.us/r6/nr/wildlife/animalinn/hab_8ddwm.htm</a>	<p>This article is taken from the Region 6 web site and is part of the Animal Inn program that focuses on the value of dead, dying, and hollow trees for wildlife. Although this article specifically talks to forest conditions on the west side of the Cascade Mountains, the concepts presented are relevant to forests elsewhere.</p> <p>It has long been recognized that snags and downed logs have values for wildlife. The Lassen Forest Plan includes direction for snag and downed-log retention. Project design features include an emphasis on retention of larger diameter snags in leave islands. The analysis for wildlife species that use snags and downed logs was incorporated into the analysis. The Eiler Project MIS and Wildlife Specialist Reports contain a discussion and analysis of snags and downed logs.</p> <p>The Lassen National Forest agrees that dead trees are an important part of the landscape. The Eiler Project is addressing dead wood through project design feature requirements to leave volumes of coarse woody debris that are appropriate for the ecosystem and the burned landscape condition.</p> <p>Snags, logs, and other woody debris will not be completely removed in the proposed project:</p> <ul style="list-style-type: none"> <li>• Within tractor units, snag retention leave islands would be generally two to five acres in size, and will comprise approximately 25 percent of the acres within each unit. Leave patches would be distributed across the unit to maintain diversity (EA, page 16).</li> <li>• Within the helicopter units, approximately 100 square feet of basal area of snags would be left to maintain black-backed woodpecker habitat ranging from 10 inches DBH to an upper diameter that will vary by unit. Snags deemed as safety hazards during operations will be felled and left on site (EA, page 16).</li> </ul> <p>EA page 28:</p> <ul style="list-style-type: none"> <li>• Where available, three down logs per acre greater than 15 inches in diameter and 15 feet in length would be retained.</li> <li>• Avoid disturbing existing large down wood, greater than 15 inches in diameter and 15 feet in length.</li> <li>• Provide for additional down woody material by leaving felled cull trees (dead trees with less than 25 percent sound wood) on site as needed to meet the three logs per acre requirement for down wood.</li> </ul>

	Referenced Document	Forest Service Consideration/Response
14-2	Byron, Eve “Wuerthner to speak on forest ecology and value of dead trees” Published in the Helena Independent Record, November 17, 2009 <a href="http://www.helenair.com/news/local/article_7cac58d2-d339-11de-abfc-001cc4c002e0.html">http://www.helenair.com/news/local/article_7cac58d2-d339-11de-abfc-001cc4c002e0.html</a>	This article discusses that all dead trees do not need to be cut to keep a forest healthy or to decrease the chance of wildfire. A key aspect of this article is dealing with beetle infestations and reducing the risk to beetles.  The Eiler Project would cut dead and/or imminently dead trees with crown scorch being the key determining factor. This project is not proposing to cut trees to reduce the threat of insect infestations.
14-3	“Dead Trees are Good Homes” Parks Canada, 2009 <a href="http://www.pc.gc.ca/eng/docs/v-g/dpp-mpb/sec1/dpp-mpb1b.aspx">http://www.pc.gc.ca/eng/docs/v-g/dpp-mpb/sec1/dpp-mpb1b.aspx</a>	This is an article on the Parks Canada website regarding the mountain pine beetle and the role it plays in forest diversity.  See response to 14-1
14-4	Kreil, Randy “Bare Trees” North Dakota Outdoors, March 1994 <a href="http://www.und.nodak.edu/org/ndwild/oldtree.html">http://www.und.nodak.edu/org/ndwild/oldtree.html</a>	This educational article from North Dakota’s nongame program discusses the benefits of dead trees in the landscape – both urban and rural.  See response to 14-1
14-5	Miller, Edward W. “Savage or Salvage Logging?” The Coastal Post - September, 1998 <a href="http://www.coastalpost.com/98/9/13.htm">http://www.coastalpost.com/98/9/13.htm</a>	This starts off as commentary against salvage logging non- native species in Marin County, CA. The commentary then goes to the quotes shown – dead trees provide many things to continue life.  See response to 14-1
14-6	Maser, Chris Ralph G. Anderson, Kermit Cromack, Jr. Ph.D. Jerry T. Williams and Robert E. Martin, Ph.D. “Dead and Down Woody Material” From Wildlife Habitats in Managed Forests the Blue Mountains of Oregon and Washington <a href="http://www.fs.fed.us/r6/nr/wildlife/animalinn/hab_6ddwm.htm">http://www.fs.fed.us/r6/nr/wildlife/animalinn/hab_6ddwm.htm</a>	It has long been recognized that snags and downed logs have values for wildlife. The Lassen Forest Plan includes direction for snag and downed-log retention. Project design features include an emphasis on retention of larger diameter snags in clusters. The analysis for wildlife species that use snags and downed logs was incorporated into the analysis. The Eiler Project MIS and Wildlife Specialist Reports contain a discussion and analysis of snags and downed logs.  See response to 14-1
14-7	Naylor, Brian, Ph.D. “Cavity Trees – Nature’s Refuge” The Ontario Woodlot Association Newsletter, Winter / Spring 2006, Vol. 42 <a href="http://www.ontariowoodlot.com/pages_pdf_new/cavitytree_S&amp;W.pdf">http://www.ontariowoodlot.com/pages_pdf_new/cavitytree_S&amp;W.pdf</a>	This article talks about the uses of cavity trees and their abundance now and into the future.  See response to 14-1
14-8	“Removal of dead wood and dead trees was listed as a KEY THREATENING PROCESS” Schedule 3 of the Threatened Species Conservation Act 1995 [12 December 2003]. <a href="http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/threat_profile.aspx?id=20011">http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/threat_profile.aspx?id=20011</a>	The first quote in the NSW Scientific Committee final determination cannot be found. The second quote is present. This is from Australia and addresses their concerns.  None of the species listed in this comment occur in the project area.  See response to 14-1

	Referenced Document	Forest Service Consideration/Response
14-9	Santiago, Melissa J. and Amanda D. Rodewald, Ph.D. "Dead Trees as Resources for Forest Wildlife" Ohio State University Extension Fact Sheet. <a href="http://ohioline.osu.edu/w-fact/0018.html">http://ohioline.osu.edu/w-fact/0018.html</a>	This paper focuses on the benefits of snags and down woody material. See response to 14-1
14-10	Schneider, Gary, "Dead Trees (they're still full of life)" The Macphail Woods Ecological Forestry Project, December 2008 <a href="http://www.macphailwoods.org/wildlife/deadtrees.html">http://www.macphailwoods.org/wildlife/deadtrees.html</a>	This paper focuses on the benefits of snags and down woody debris. See response to 14-1
14-11	Science Findings, issue twenty, November 1999 Pacific Northwest Research Station USDA Forest Service <a href="http://www.fs.fed.us/pnw/sciencef/scifi20.pdf">http://www.fs.fed.us/pnw/sciencef/scifi20.pdf</a>	This article points out that over time; more is discovered about the value of snags and down woody debris over the landscape for a wide variety of animals, birds, fungi, and insects. See response to 14-1
	<b>Attachment # 15</b> <b>Forest Service Leaders Stress that Independent, Unbiased Science Conclusions should Always form the Basis for Proposed Public Land Treatments</b>	
15-1	Excerpts from an interview with Hilda Diaz-Soltero Associate Chief for Natural Resources, USDA Forest Service <i>Women in Natural Resources</i> , Vol. 21, No. 3, August-00 <a href="http://www.fs.fed.us/publications/2000/00nov02-Hilda-Diaz-Soltero-Interview.pdf">http://www.fs.fed.us/publications/2000/00nov02-Hilda-Diaz-Soltero-Interview.pdf</a>	Interview, not a scientific publication. Associate chief discusses the importance of integration of science and management sides of the Forest Service. Below is the quoted sentence in context:  <i>"I work with forest inventories, like the Forest Inventory and Assessment, or the Natural Resources Inventory System. I am very much involved in trying to integrate the science and the management sides of the Forest Service. It's very, very important that we conduct that integration, because our management decisions are scientifically based, and there is an ever-increasing need for more scientific information. Additionally, I get involved in selecting, mentoring, and training the next generation of leaders. It's succession planning."</i>  The Eiler project utilized the best available science in the development of the proposed action and alternatives, including treatment prescriptions, analysis of effects, development of mitigation measures and monitoring.

	Referenced Document	Forest Service Consideration/Response
15-2	<p>Dr. Ann Bartuska, Deputy Chief for Research and Development, USDA Forest Service, Excerpt from testimony before the House Resources Forest and Forest Health Subcommittee July 15, 2004  <a href="http://www.fs.fed.us/congress/108/house/oversight/bartuska/071504.html">http://www.fs.fed.us/congress/108/house/oversight/bartuska/071504.html</a></p>	<p>Testimony, not a scientific publication. Discusses the use of best science available. Below is the quoted sentence in context:</p> <p><i>“Mr. Chairman, post-catastrophic forest restoration is a complex process which begins almost immediately following a destructive event. Forest Service research works with managers to develop tools and information that these managers need to do their jobs better. <b>Forest Service managers strive to use the best science available in their decision making.</b> We realize there are questions still to be answered about the effects of our restoration activities, and we are working to find these answers. We also know that we would not be responsible stewards if we waited to satisfy all uncertainties before proceeding with our work.</i></p> <p>The Eiler project utilized the best available science in the development of the proposed action and alternatives, including treatment prescriptions, analysis of effects, development of mitigation measures and monitoring.</p>
15-3	<p>Dale Bosworth Chief, USDA Forest Service Excerpt from a statement before the Committee on Energy and Natural Resources United States Senate March 3, 2004  <a href="http://www.ourforests.org/fact/bosworthtestimony0304.pdf">http://www.ourforests.org/fact/bosworthtestimony0304.pdf</a></p>	<p>Statement, not a published paper. Chief Bosworth indicated that in 2005 the Forest Service would work to accomplish watershed restoration efforts under the Healthy Forests Restoration Act and that the Research Stations are committed to utilizing the best science available. Below is the quoted sentence in context:</p> <p><i>“We must also realize that it is not only the hazardous fuel reduction program that will improve overall forest and rangeland health. The integrated approach of multiple management activities in the agency’s wildlife, grazing, vegetative management, and timber programs will improve the condition of the land, or in the Forest Service vernacular ‘improve condition class.’ This emphasis encompasses one of the ‘four threats’ I refer to in managing this agency. <b>We are committed to accomplishing the aggressive treatments planned in the President’s Budget for FY 2005 using new authorities in the Healthy Forests Restoration Act that improve the condition class of the nation’s watersheds and thus protect communities and resources for future generations – and our Research Station directors are committed to providing the Forest Service with the best science available.</b>”</i></p> <p>The Eiler project utilized the best available science in the development of the proposed action and alternatives, including treatment prescriptions, analysis of effects, development of mitigation measures and monitoring.</p>

	Referenced Document	Forest Service Consideration/Response
15-4	<p>Sally Collins Associate Chief USDA Forest Service Excerpt from testimony before the Committee on Energy and Natural Resources, United States Senate July 11, 2006  <a href="http://www.fs.fed.us/congress/109/senate/oversight/collins/071106.html">http://www.fs.fed.us/congress/109/senate/oversight/collins/071106.html</a></p>	<p>Statement, not published paper. Sally Collins is quoted that the use of best available science is needed.</p> <p>The following is a quote pertaining to use of best available science in the speech cited:</p> <p><i>“Our guidance also differs from the BLM due to continuing advances in wind energy technology, as well as new information on its affects on wildlife and civilian and military radar. <b>Our direction will address these emerging issues to ensure it is based on the available best science.</b> The Forest Service expects to publish the wind energy policy and handbook direction in the Federal Register this fall. The policy will call for the evaluation of wind energy proposals to be done at the Forest level using public comment processes due to the differing landscapes, habitats, wildlife populations, and public concerns unique to each site.”</i></p> <p>The impacts of wind energy are outside of the scope of the Eiler Project. No wind energy technology activities are proposed with this project.</p> <p>The Eiler project utilized the best available science in the development of the proposed action and alternatives, including treatment prescriptions, analysis of effects, development of mitigation measures and monitoring.</p>

	Referenced Document	Forest Service Consideration/Response
15-5	<p>Dale N. Bosworth Chief USDA Forest Service Excerpt from a speech on <i>Sustainable Management of the National Forests</i>, at the Andrus Center for Public Policy, Boise State University December 12, 2001  <a href="http://www.andruscenter.org/images/transcripts/Sustainable_transcript.pdf">http://www.andruscenter.org/images/transcripts/Sustainable_transcript.pdf</a></p>	<p>Statement, not published paper. Chief Bosworth focused his statement on the use of best science. The following is a quote pertaining to use of best available science in the speech cited:</p> <p><i>“The system is broken. Analysis paralysis means really that we can’t manage the land in the ways that the <b>American people have come to expect. They expect us to use the best science, and we ought to use the best science.</b> But we’re required to incorporate into the process every bit of new information that comes along. If the folks on the forest have been working away, and they are finally getting close to making a decision, some new information becomes available. They’re back to the drawing board to incorporate that new information. During the time that they’re incorporating that new information, another bit of new information comes in. Now they have to go back to the drawing board again and consider that new information. You can get yourself into just a vicious circle and end up never making a decision that you can sustain. People expect us to make timely decisions, and they expect us to act on them. They expect us to take care of the land while we’re doing it, but we’ll have to make some changes in the process.”</i></p> <p>The Eiler project utilized the best available science in the development of the proposed action and alternatives, including treatment prescriptions, analysis of effects, development of mitigation measures and monitoring.</p>
15-6	<p>Sally Collins Associate Chief USDA Forest Service Excerpt from a speech to the Land Trust Alliance Rally “Protecting Open Spaces: Partners in a Common Cause” October 31, 2004  <a href="http://www.fs.fed.us/news/2004/speeches/10/open-spaces.shtml">http://www.fs.fed.us/news/2004/speeches/10/open-spaces.shtml</a></p>	<p>Statement, not a published paper. Sally Collins is quoted and implies that the use of best available science is needed to assure special areas are managed in the long-term and that researchers and managers should work together to understand the consequences of our decisions. The following is a quote pertaining to use of best available science in the speech cited:</p> <p><i>“Third, <b>always use the best science. Science can’t decide for us, but it can help us understand the consequences of our decisions. Forest Service Research and others in academia can deliver some of the best science and technical resources to help inform how these special areas should be managed for the long term.</b>”</i></p> <p>The Eiler project utilized the best available science in the development of the proposed action and alternatives, including treatment prescriptions, analysis of effects, development of mitigation measures and monitoring.</p>

	Referenced Document	Forest Service Consideration/Response
15-7	<p>Statement by Heidi Valetkevitch, National Media Officer USDA Forest Service to Joe Bauman, reporter for the <i>Deseret Morning News</i> December 24, 2004  <a href="http://www.deseretnews.com/article/600100084/New-forest-rules-focus-on-holistic-approach.html">http://www.deseretnews.com/article/600100084/New-forest-rules-focus-on-holistic-approach.html</a></p>	<p>Statement, not a published paper. The following is a quote pertaining to use of best available science in the statement cited:</p> <p><i>“The new rule directs forest managers to use the best science available to protect species at a landscape level,” she said. The emphasis is to preserve ecosystems as a whole. The present rule requires attention on a species level, she said, while the new approach will be ‘much more holistic,’ examining the forest ‘from a landscape level.’”</i></p> <p>The Eiler project utilized the best available science in the development of the proposed action and alternatives, including treatment prescriptions, analysis of effects, development of mitigation measures and monitoring.</p>
15-8	<p>Brown, Joel <b>“Power to the People!”</b> <i>SRM Rangeland News</i>, November 2007  <a href="http://www.rangelands.org/RN/Nov.RN07.pdf">http://www.rangelands.org/RN/Nov.RN07.pdf</a></p>	<p>Newsletter/opinion. The commenter included a quote from Forest Service Chief Abigail Kimball where she stated that management approaches should be based on the best available science.</p> <p><i>On June 29, 2007, Chief of the Forest Service, Gail Kimbell expressed her support of employees participating in professional societies. In her letter she states: “As stewards of forests and rangelands, we must respond to the many challenges of managing a wide variety of resources and values. To meet these various challenges, a diverse and highly qualified cadre of natural resource and other professionals is critical to assure that management approaches are based on the best science. More than ever, it is important for each of us to continue to learn, enhance our resource knowledge, and develop innovative approaches to cooperatively conserve this Nation’s natural resources.”</i></p> <p>The Eiler project utilized the best available science in the development of the proposed action and alternatives, including treatment prescriptions, analysis of effects, development of mitigation measures and monitoring.</p>

	Referenced Document	Forest Service Consideration/Response
15-9	Statement by Chief Dr. Mike Dombeck “ <b>Forest Chief Shifts focus to clean water</b> ” April 1998 <i>TRANSITIONS</i> <a href="http://www.waterplanet.ws/transitions/tr9804/">http://www.waterplanet.ws/transitions/tr9804/</a>	Statement, not a published paper. Shifts focus of management to use best available science.  <i>Our jobs are not easy jobs, but conservation has moved from a 'special interest' to a national priority. <b>The Forest Service must be a leader in using the best science and the best managers to accomplish "what I think is one of the noblest, most important callings of our generation bringing people together and helping them find ways to live within the limits of the land.</b> That also is a marked shift for an agency more known for an attitude of limitless resource production from national forests.</i>  The Eiler project utilized the best available science in the development of the proposed action and alternatives, including treatment prescriptions, analysis of effects, development of mitigation measures and monitoring.
15-10	Chief F. Dale Robertson From a June 4, 1992 direction letter to Regional Foresters and Station Directors, Appendix B Chief F. Dale Robertson From FIVE YEAFt REVIEW - B-3 # # <a href="http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev3_053856.pdf">http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev3_053856.pdf</a>	This links to a 1993 document from the Lolo National Forest pertaining to a Five year review of their forest plan. It is not relevant to the Eiler Fire.  The use of the “new perspectives” back in the 1990s was an effort to consider more ecosystem based management in national forests and to use science in the development of management actions. New perspectives had been replaced with an ecosystem approach to management actions and the use of best available science. The Eiler project utilized the best available science.

	Referenced Document	Forest Service Consideration/Response
15-11	<p>Smith, Ted <i>“Chief’s Ecosystem Stewardship Conference Workshop Review”</i> Eco-Watch, February 26, 1996  <a href="http://www.fs.fed.us/eco/eco-watch/ew960226.htm">http://www.fs.fed.us/eco/eco-watch/ew960226.htm</a></p>	<p>Conference transcripts, not scientific document. Emphasis is on using the best available science to guide management.</p> <p>The following is a quote pertaining to use of best available science in the statement cited:</p> <p><i>In 1994 Chief Jack Ward Thomas of the U.S. Forest Service invited private foundations to join the USFS and other federal resource management agencies in co-funding a national workshop designed to bring the best science, broadly defined, to an 11-day workshop of agency natural resource managers. Having a science background himself, Thomas wanted to capture the scientific underpinnings of ecosystem dynamics in order to establish a more solid basis for sustainable resource management. Private foundations, invited for the first time to join the Forest Service in this way, would, Thomas felt, add legitimacy and assist in bringing in scientific talent from outside the government. The 11 days allocated to the Workshop, unusual by most standards, accommodated a vast range of scientific information—biological and socio-economic— which bears on resource management. But it also meant that scientists and resource managers would convene every afternoon in break-out sessions to wrestle with the “how to” issues. Chief Thomas committed himself to being present for two full weeks. He came. He stayed. And he (wisely) did not seek to conquer.</i></p> <p><i>When resource managers and scientists are thrown together, it appears that the managers work hardest in trying to understand the relevance of available science to their mandated responsibilities. Scientists, normally rewarded for producing good science, do not work quite so hard to understand what level of science the managers must command in order to do their jobs. The incentives are unequal—and this showed up in the plenary sessions where several of the scientists spoke to what they knew—not to what their audience needed to know.</i></p> <p>The Eiler project utilized the best available science, through the design of alternatives, different silvicultural treatments, assessment of effects, and determination of mitigation measures.</p>

	Referenced Document	Forest Service Consideration/Response
15-12	<p>Agriculture Secretary Dan Glickman, From an Announcement of Interim Ban on Forest Road Construction, Washington, D.C., February 11, 1999  <a href="http://www.usda.gov/news/releases/1999/02/0056">http://www.usda.gov/news/releases/1999/02/0056</a></p>	<p>This excerpt is from a speech in reference to an 18 month moratorium on forest road construction in certain unroaded areas that went into effect so the Forest Service could revise its national road management policy. The moratorium ended in 2000 and a new management policy was adopted in 2001. The Eiler Project does not propose construction of roads into roadless areas.</p> <p>The analyses completed in the specialist reports take into consideration, and make conclusions based on, research, science, reports, models, monitoring and site-specific information as it was available, in conjunction with scientific recommendations regarding the management of, and effects of, the project activities on the relevant resource. The Eiler Project documents a full environmental review informed by science.</p>
15-13	<p>Statement by USFS Chief Tom Tidwell From an interview with Rob Chaney of the <i>Missoulian</i>, June 19, 2009  <a href="http://westinstenv.org/sosf/2009/06/19/tidwell-interviewed-by-the-missoulian/">http://westinstenv.org/sosf/2009/06/19/tidwell-interviewed-by-the-missoulian/</a></p>	<p>Statement made by Chief Tidwell regarding the use of the best available science.</p> <p><b><i>Chief Tidwell:</i></b> <i>I'm going to have a transition with Chief (Gail) Kimball [sic, Missoulian error]. The thing we see as our focus is implementing the economic recovery projects, the opportunity we had there to not only get a lot of essential work done but to provide jobs, especially in counties across the country where there's high unemployment. We continue to move forward with our focus on climate change, to use the science that we have and apply that science so that natural systems are able to adapt to the various stressors that are occurring in the changing climate.</i></p> <p><b><i>Tidwell:</i></b> <i>We do have a leadership role. Part of it comes from the extensive research that our research-and-development branch of the agency has been doing for the last few decades. We have some of the best science, and we need to make sure we're applying that, using that and sharing that as we move forward. I think we have a key leadership role, not only in the application of science but to help inform and educate our community and the folks we work, so they can understand the changes that are occurring, how it's affecting the landscape and help us find solutions about how we need to change our management so these natural systems are able to adapt to various climate change stressors.</i></p> <p>The Eiler project utilized the best available science, through the design of alternatives, different silvicultural treatments, assessment of effects, and determination of mitigation measures.</p>

	Referenced Document	Forest Service Consideration/Response
15-14	<p>Potyondy, John P. 2007 <b>“The Evolution of Channel Maintenance Science in the Forest Service”</b> Mr. Potyondy is the WO Watershed, Fish, Wildlife, Air, and Rare Plants Staff  <a href="http://www.stream.fs.fed.us/afsc/pdfs/Potyondy.pdf">http://www.stream.fs.fed.us/afsc/pdfs/Potyondy.pdf</a></p>	<p>The following is a quote pertaining to use of best available science in the document cited:</p> <p><i>The USDA Forest Service Stream Systems Technology Center was established in 1992, in part, to improve the scientific understanding of channel maintenance flows. <b>Since that time, they have consulted with a wide array of scientists in the Forest Service, other agencies, universities, and consultants, with the aim of arriving at a consensus on the best science available to address this issue.</b></i></p> <p><i>Two specific areas need further research with respect to current channel maintenance science: First, much remains to be learned about sediment transport science in coarse- grained gravel bed channels typically found in the mountainous watersheds of the national forests; Second, much remains to be learned about streamside vegetation and species specific linkages between streamside vegetation and streamflows in mountain streams. As work in these areas continues, we can be certain that the science of channel maintenance will once again evolve in response to this new knowledge and the approach employed today may again need to be refined to reflect the new science.</i></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 (p. 9-10).</p>

	Referenced Document	Forest Service Consideration/Response
15-15	<p>Melle, Ann R. <b>“The U.S. Forest Service Approach to Forest Law Enforcement”</b> A presentation to the East Asia Ministerial Conference, September 12, 2001 Ms. Melle is the Asst. Director of Law Enforcement and Investigations, USDS Forest Service <a href="http://www.for.gov.bc.ca/hfd/library/documents/bib49682.pdf">http://www.for.gov.bc.ca/hfd/library/documents/bib49682.pdf</a></p>	<p>This paper has discusses in a very broad way the many integrated aspects of the U.S. Forest Service forest management and enforcement program.</p> <p><i>The National Forest System consists of around 195 different administrative units totaling over seventy seven million hectares of land spread throughout the United States and its territories. These units represent a tremendous variety of ecosystems from the tropical forests of Puerto Rico to the mangroves of Florida to the high elevation boreal and bristlecone pine forests of our mountain west and Alaska.</i></p> <p><i>Many hundreds of types of forest products are harvested every year from Forest Service lands for personal and commercial use, including foods and flavorings, medicinal herbs and pharmaceuticals, decoratives, floral greenery and dyes, specialty wood items, landscaping plants, fuelwood, wood pulp and sawtimber products and by-products. The public demand for forest products changes rapidly, reflecting changes in the market place, shifts in technology, consumerism and social climate, new ways forest resources are valued, and shifts in the economy. <b>The Forest Service manages the National Forest System's natural resources with a commitment to long-term ecosystem sustainability, multiple use, local community involvement and economic stability, interaction of social and cultural values with forest resource management, and the use of management practices based on the best science available.</b> This paper will focus on the management of sawtimber products; however, we apply similar concepts and programs to other forest resources.</i></p> <p>The Eiler project proposes vegetation management to achieve goals fire salvage and restoration. It does not concern law enforcement or investigations related to illegal activities.</p>

	Referenced Document	Forest Service Consideration/Response
15-16	<p>Statements by retired Chief Dr. Mike Dombeck “Politics vs. Science,” October 19, 2006 Published by the University of Wisconsin, Board of Regents.  <a href="http://whyfiles.org/247sci_politics/index.php?g=5.txt">http://whyfiles.org/247sci_politics/index.php?g=5.txt</a></p>	<p>The following is a quote pertaining to use of best available science in the statements cited:</p> <p><i>We asked Michael Dombeck, former head of the U.S. Forest Service, why government should fund research when the results might not accord with its political interests. "That is the head-in-the-sand approach," says Dombeck, now a professor of global environmental management at University of Wisconsin-Stevens Point. "Not wanting to hear it doesn't mean it's not true, or that it doesn't represent the best science of the day. <b>The responsible policy maker ought to seek out the best science, because ultimately that will yield the best result.</b>"</i></p> <p><i><b>"To put things in perspective, Dombeck says, "Science should not be the only driver of policy; there are economic, social and political concerns, but ... scientists can provide information that informs policymaking; 'If we adopt this policy, this will be the outcome,' and that certainly does not appear to be happening."</b></i></p> <p><i>"We can't leave the mishmash of political science without enjoying one irony: The U.S. government remains the world's biggest funder of science -- which is even probably true of climate science. As Greenberg says, "Most science goes on untouched. The scientists are given the money, and do their work without any political interference."</i></p> <p>Consideration of the social aspects related to timber harvest in concert with utilizing the best available science was accomplished with the Eiler Project, through the design of alternatives, different silvicultural treatments, assessment of effects, and determination of mitigation measures.</p>

	Referenced Document	Forest Service Consideration/Response
15-17	<p>Kaufmann, Merrill R. 2005 “<b>Good Fire, Bad Fire</b>” Mr. Kaufmann is the Rocky Mountain Research Station's team leader for ecosystem management, Fort Collins, CO, USDA Forest Service  <a href="http://csfs.colostate.edu/pdfs/Good_Fire_Bad_Fire.pdf">http://csfs.colostate.edu/pdfs/Good_Fire_Bad_Fire.pdf</a></p>	<p>USDA publication about the role of fire in forest ecosystems. The quote from the commenter is taken out of context, as the premise of the section of the paper that the comment comes out of is that the current condition on the ground (which is a result of decades of fire suppression) can be at least partially remedied through reintroduction of fire.</p> <p><i>Science and history tell us that much of the western landscape we grew up knowing and loving is an artifact of human management from the late 19th century. With fire removed from ecosystem processes, and nothing to limit shrub invasions in prairies or millions of seedlings in forests, our landscape has become unnatural and unsustainable.</i></p> <p><i>When fire strikes now, it’s a different problem because the land has been too long without. The first step in redressing this situation may be the most difficult—that of changing our collective perception of what a healthy and sustainable forest or prairie looks like. We have to learn to understand what we see, for we have grown up accepting our experience, believing the forests we see today are natural. To deliberately alter them seems contrary to the very ethic of good environmental stewardship. But good stewardship, and good ecology, often means realizing that many of today’s forests are not natural at all. Here the scientific community can help. <b>Carefully done science can provide common ground for agreement among different stakeholders, enabling communities to unify.</b></i></p> <p><i>As a general rule, no. In many cases our forests, due to our tinkering, have become too vulnerable to runaway crown fires. Even the most carefully planned “controlled” burns may constitute unacceptable risk to the many people who live in or near the forest, at the wildland-urban interface. <b>The best science available tells us that at some point we must reinstall this missing ecosystem process so the natural machinery functions properly again.</b> We have to do it cautiously until our forests are restored to a more natural condition, and we may need treatments other than fire to reduce the risks of reintroducing fire. In many other places, such as some prairies and shrublands, it is only our perception of the role of fire that we must overcome to restore normal ecosystem processes. Fire can threaten ranch structures, but lack of fire can be a greater threat to long-term ranching livelihood.</i></p> <p>The Eiler project proposes to do exactly that - work towards returning the project area to more of a natural fire return interval.</p>

	Referenced Document	Forest Service Consideration/Response
15-18	<p>Bravo, Aguirre Celedonio and Carlos Rodriguez Franco, compilers 1999. <b>North American Science Symposium: Toward a Unified Framework for Inventorying and Monitoring Forest Ecosystem Resources</b>. Guadalajara, Mexico (November 2-6, 1998). Proceedings RMRS-P-12. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station  <a href="http://cwt33.ecology.uga.edu/publications/pubs_martha_new_01282003/Batch_2_@300dpi/PDF/1389.pdf">http://cwt33.ecology.uga.edu/publications/pubs_martha_new_01282003/Batch_2_@300dpi/PDF/1389.pdf</a></p>	<p>USDA publication from a symposium on future inventory and monitoring programs to hydrological responses to disturbance processes on a watershed scale.</p> <p>The following is a quote pertaining to use of best available science in the testimony cited:</p> <p><i>The general objective of this Symposium was to build on the best science and technology available to assure that the data and information produced in future inventory and monitoring programs are comparable, quality assured, available, and adequate for their intended purposes, thereby providing a reliable framework for characterization, assessment, and management of forest ecosystems in North America. Central to the syntheses delivered in this Symposium was the conclusion that a fundamental improvement in the approaches used for inventorying and monitoring ecosystem resources is required to meet current and future environmental uncertainties. Specific actions were proposed to address these challenges. These strategic actions are described in the last chapter of these proceedings.</i></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 (p. 9-10).</p>

	Referenced Document	Forest Service Consideration/Response
15-19	<p>McDaniel, Josh 2007 "The Zaca Fire: Bridging Fire Science and Management" Widland Fire Lessons Learned, <a href="http://www.wildfirelessons.net/Additional.aspx">http://www.wildfirelessons.net/Additional.aspx</a></p>	<p>Not peer reviewed/published document. The paper is regarding the use of a predictive wildfire behavior model which was used on the Zaca Fire in California in 2007 in order to facilitate fire suppression efforts during a wildfire.</p> <p>The following is a quote pertaining to use of best available science in the article:</p> <p><i>"The experience of the Zaca Fire demonstrates a window of opportunity to improve the link between science and management. A major concern often expressed in both fire research and fire management circles is that there is a lot of science being produced, but very little that can or is being incorporated (depending on your perspective) into fire management. There may be a current opening to change that state of affairs."</i></p> <p><i>"This fire season has shown that fire management is changing at a more rapid pace than ever before. Point protection, AMR, and other non-traditional suppression techniques and strategies have become the norm. Much of this change is driven by necessity, as fire managers have struggled to fight larger and more intense fires over longer fire seasons with fewer resources. But, it is change nonetheless. And in this dynamic environment there is potential to build new more substantial links between science and the field. "</i></p> <p>The use of this model would not be appropriate for vegetation management planning as in the Eiler Project.</p>
15-20	<p><b>CENTER FOR BIOLOGICAL DIVERSITY v. UNITED STATES FOREST SERVICE</b> Argued and Submitted July 15, 2003. -- November 18, 2003 Before: KLEINFELD, WARDLAW, Circuit Judges, and POGUE, Judge. In the United States Court of Appeals, Ninth Circuit <a href="http://caselaw.findlaw.com/us-9th-circuit/1173711.html">http://caselaw.findlaw.com/us-9th-circuit/1173711.html</a></p>	<p>The referenced document is an opinion from the 9<sup>th</sup> circuit court regarding a lack of consideration of opposing viewpoints that goshawks are not generalists.</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><b>Attachment # 21- Timber Harvest Degrades Forest Health and Restores nothing in a Forested Ecosystem</b></p>		

	Referenced Document	Forest Service Consideration/Response
21-1	<p>Platt, Rutherford V. Ph.D., Thomas T. Veblen Ph.D., and Rosemary L. Sherriff <b>“Are Wildfire Mitigation and Restoration of Historic Forest Structure Compatible? A Spatial Modeling Assessment”</b> Published Online: by the by Association of American Geographers. Sep. 8, 2006 <a href="http://www.ingentaconnect.com/content/routledg/anna/2006/00000096/00000003/art00001">http://www.ingentaconnect.com/content/routledg/anna/2006/00000096/00000003/art00001</a></p>	<p>The referenced document discusses a spatial modeling study done to evaluate where both wildfire mitigation and restoration of historic forest structure are potentially needed in the ponderosa pine-dominated montane forest zone of Boulder County, Colorado. The authors question the validity of thinning as a means both to reduce the threat of wildfire and to restore historic forest structure in the absence of site-specific data collection on past and present landscape conditions.</p> <p>The referenced document is not site specific to Eiler Fire Project area, but addresses forest management practices across the Western United States. “In short, this study provides guidance for mechanical thinning in the montane zone of Boulder County and also raises issues important to forest management practices across the Western United States. It indicates that the complexity of wildfire, ecosystems, and land management precludes simple generalizations to guide policy. A thinning and fuels reduction plan for the objectives of fire mitigation and restoration of historic forest structure should not be applied in the absence of site-specific data collection on past and present landscape conditions. Spatial models of potential wildfire behavior and historic fire regimes, such as those in this study, can aid decision making in complex environments where such data are available.”</p> <p>“Fire mitigation and restoration models derived from other ponderosa pine ecosystems (e.g., Covington and Moore 1994; Kaufmann et al. 2001; Kaufmann et al. 2003) should not be extrapolated to the montane zone of Boulder County in lieu of conducting intensive, site specific data collection in the potential management area. Analogously, the specific results reported here should not be uncritically applied to other areas of ponderosa pine ecosystems. Rather, the approach and methodology of the current study can inform management discussion and guide data collection procedures in other ecosystems.”</p> <p>The Forest Service used site specific data (historical and current) and site specific research papers to develop the Proposed Action and treatment objectives for the Eiler Fire Project.</p>
21-2	<p>Ingalsbee, Timothy Ph.D. <b>“Logging for Firefighting: A Critical Analysis of the Quincy Library Group Fire Protection Plan.”</b> Unpublished research paper. 1997. <a href="http://www.fire-ecology.org/research/logging-for-firefighting_2.html">http://www.fire-ecology.org/research/logging-for-firefighting_2.html</a></p>	<p>The cited article is opinion commentary that criticizes H.R. 858, the Quincy Library Group Forest Recovery and Economic Stability Act of 1997, which has no relevance to the Eiler project. H.R. 858 directed the Secretary of Agriculture to conduct a pilot project on Federal lands on the Plumas, Lassen, and Tahoe National Forests in California to demonstrate the effectiveness of specified fire resiliency resource management activities recommended by the Quincy Library Group.</p>

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21-3	<p>Lawrence, Nathaniel, NRDC senior attorney. <b>“Gridlock on the National Forests”</b> Testimony before the U.S. House of Representatives Subcommittee on Forests and Forest Health (Committee on Resources) December 4, 2001.  <a href="http://www.nrdc.org/land/forests/tnl1201.asp">http://www.nrdc.org/land/forests/tnl1201.asp</a></p>	<p>The testimony is over the proposed Healthy Forests Initiative in which hazardous fuel reductions activities could be categorically excluded from documentation in an EA or EA in order to ensure more timely decisions. The presenter does not believe that thinning is a proven silvicultural practice for fuels reduction, and hence, project proposing to use thinning to reduce should not be allowed to be categorically excluded from documentation.</p> <p>Thinning is not proposed in the Eiler Project EA.</p>
21-4	<p>Peters, Robert L. Ph.D, Evan Frost, and Felice Pace. 1996 <b>“Managing for Forest Ecosystem Health: A Reassessment of the ‘Forest Health Crisis’</b>  <a href="http://www.magicalliance.org/Forests/Forest%20Health%20Evaluated.htm">http://www.magicalliance.org/Forests/Forest%20Health%20Evaluated.htm</a></p>	<p>This opinion paper is general and not specific to the Eiler project</p> <p>The link did not work. However, based on the quote provided, this paper is based on using salvage activities as a tool to reduce fire hazard and/or insect and disease epidemics to improve forest health. There is confusion as to which document “USFS 1993” is since no bibliography was included with this reference and there are many references available that could fit this citation. Current direction for National Forest Resource Management is in the Forest Service Manual (FSM) Chapter 2020.2: “The aim is to reestablish and retain ecological resilience of National Forest System lands and associated resources to achieve sustainable management and provide a broad range of ecosystem services. Healthy, resilient landscapes will have greater capacity to survive natural disturbances and large scale threats to sustainability, especially under changing and uncertain future environmental conditions, such as those driven by climate change and increasing human uses.” Clarification on this point was not provided by the commenter, thus this review is based solely on the excerpt provided in the comment and does not take into account the reference “USFS 1993”.</p>

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21-5	<p>Roberson, Emily B. Ph.D., Senior Policy Analyst, California Native Plant Society Excerpt from a letter to Chief Dale Bosworth and 5 members of congress</p> <p><a href="http://www.plantsocieties.org/PDFs/Fire%20letter%20CNPS%208.02%20letterhead.pdf">http://www.plantsocieties.org/PDFs/Fire%20letter%20CNPS%208.02%20letterhead.pdf</a></p>	<p>Concerns identified in the quotation will be mitigated through project design and resource protection measures (EA, page 16-17). Natural and project generated slash will be treated following harvest activities to mitigate fire hazard. The cited letter also says, "Like most in the scientific and conservation community, California Native Plant Society is neither in favor of or opposed to logging per se. Instead we advocate forest, fire and fuels management practices that minimize danger to lives and property; create and maintain sustainable, productive forest ecosystems dominated by viable plant species; conserve rare and imperiled species through their natural ranges; and protect water quality and supply, soils and other forest ecosystem services and resources."</p> <p>The Eiler project will maintain sustainable productive forest ecosystems, conserve rare plants, and protect water quality and supply, soils, and other forest resources (EA, Chapter 3).</p>
21-6	<p>Keene, Roy "<b>Forests, Fires and Logging</b>"</p> <p>An OP-ED from the May 1, 1997 Oregonian</p> <p><a href="http://www.subtleenergies.com/ormus/bmnfa/fire&amp;log.htm">http://www.subtleenergies.com/ormus/bmnfa/fire&amp;log.htm</a></p>	<p>This op-ed piece advocates that fires should be allowed to burn naturally. To achieve success and public trust, the Forest Service should renew its mission and begin to prudently restore and maintain America's national forests. Restoration and ecosystem maintenance imply allowing fire, insects, and pathogens to interact as part of the natural forest cycle.</p> <p>Renewing the FS mission is outside the scope of the Eiler decision.</p>
21-7	<p>"National Forest Fact Sheet Myths and Facts of Logging National Forests"</p> <p><a href="http://www.rso.cornell.edu/snrc/documents/NFPA_MythsFacts.pdf">http://www.rso.cornell.edu/snrc/documents/NFPA_MythsFacts.pdf</a></p>	<p>Webpage cannot be found</p>
21-8	<p>Power, Thomas Ph.D. "<b>The Politics of Forest Fires -- The Abuse of Other People's Hard Times.</b>" 8/15/2000. Thomas Michael Power is the Professor and Chairman of the Economics Department, University of Montana</p> <p><a href="http://www.forwolves.org/ralph/tompower.htm">http://www.forwolves.org/ralph/tompower.htm</a></p>	<p>This opinion piece advocates that commercial logging is one of the major causes of unhealthy forest. Until the forest products industry stops trying to insist that clearcutting our public lands is necessary for the health of those lands, we will make no progress in restoring those lands.</p> <p>Clearcutting is not proposed in the Eiler Project.</p>
21-9	<p>Haberman, David "<b>End logging in Indiana state forests</b>" <i>Indiana Daily Student</i>, January 9, 2002</p> <p><a href="http://www.idsnews.com/news/story.aspx?id=19735&amp;comview=1">http://www.idsnews.com/news/story.aspx?id=19735&amp;comview=1</a></p>	<p>Webpage cannot be found</p>

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21-10	A statement by Arthur Partridge, Ph.D. At a Press Conference with Senator Robert Torricelli, April 28, 1998, U.S. Capitol <a href="http://www.saveamericasforests.org/news/ScientistsStatement.html">http://www.saveamericasforests.org/news/ScientistsStatement.html</a>	<p>Press conference with U.S. Senator Torricelli regarding deforestation is reducing biodiversity and clear cutting leads to severe ecosystem consequences such as: erosion, damage to streams, and even age stands could lead to increases in insects and disease.</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. No clearcutting is proposed. IDFs and BMPs will be implemented to prevent erosion, damage to streams, and insects and disease (EA, pages 20-28, Hydrology Report Appendix 1).</p>