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Kent Connaughton
Regional Forester
% Connie Mehmel
1133 North Western Ave.
Wenatchee, WA 98801

Sent via US Mail and Email

Dear Regional Forester Connaughton:

These are comments on the Quartz Mountain Whitebark Pine Planting Preliminary Environmental Assessment (EA) from Wilderness Watch. Wilderness Watch is a national nonprofit wilderness conservation organization dedicated to the protection and proper stewardship of the National Wilderness Preservation System. Wilderness Watch appreciates the concern for long-term viability of whitebark pine expressed by this proposal, however we believe the project as proposed is contrary to the letter and spirit of the Wilderness Act and violates the Wenatchee Forest Plan.

Introduction

None of the reasons given in the EA for this project appear to be valid. The EA states on page 6, "There is a need to establish a whitebark pine seed source within the Quartz Mountain burned areas in order for natural regeneration to occur." It also notes, "During a field visit in 2012, no tree seedlings were observed on the former whitebark site and it is therefore unlikely that whitebark pine will naturally regenerate in the area." This clearly leads the reader to believe there are no living whitebark pines in the area. However, page 25 states, there are "surviving whitebark pines in the Quartz Mountain area" which contrasts with the earlier statement. As the comments details below, this is not the only time logical inconsistencies occur in the EA. Simply put, the statement on page 25 raises significant doubt about the purpose and need for this project.

NEPA--Purpose and Need and Alternatives

The stated purpose and need for this project is far too narrow, and the EA fails to consider a range of alternatives. The Seventh Circuit recently explained:

No decision is more important than delimiting what these "reasonable alternatives" are. . . . One obvious way for an agency to slip past the strictures of NEPA is to contrive a purpose so slender as to define competing "reasonable alternatives" out of consideration (and even out of existence). . . . If the agency constricts the

definition of the project's purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role. Simmons, 120 F.3d at 660.

"[A]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative . . . would accomplish the goals of the agency's action, and the EIS would become a foreordained formality." Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991), cert. denied, 502 U.S. 994, 112 S. Ct. 616 (1991). See also Ayers v. Espy, 873 F. Supp. 455, 467-68 (D. Colo. 1994) (rejecting timber sale EA because the US Forest Service considered only even-age management).

Muckleshoot Indian Tribe v. U.S. Forest Service, 177 F.3d 800 (9th Cir. 1999) [land exchange] speaks directly to the issue of scope:

The Forest Service also contends that because the purpose of the transaction was to carry out an "exchange" and not a purchase, it was not required to consider this alternative. Seattle Audubon Society, 80 F.3d at 1404 (holding that an agency is not required to examine alternatives inconsistent with its basic policy objectives). To the extent that Weyerhaeuser would have been exchanging its lands for federal monies rather than federal lands, we do not recognize such an inconsistency. [FN7] Were we to construe the statement of purpose as limiting the transaction to land-for-land exchanges, it would certainly be too narrow to meet the standards for an appropriate statement of purpose as articulated in City of Carmel, 123 F.3d at 1155. [end footnote]

Specifically, all other alternatives were rejected for complete analysis other than the proposed action and no-action. The EA fails to fully analyze options such as experimenting outside of wilderness to see if this would even work. Indeed, the EA is full of references to the fact that this is an experimental proposal, one that will take some eighty years to gauge its success.

The EA states on page 11 regarding alternatives:

An alternative that considered broader scale planting at multiple sites in the wilderness was also considered but not analyzed. The decision was made to focus on the Quartz Mountain site, because it is a site where unnatural impacts to habitat have been well documented. Past experience and application of the minimum tool concept also suggested that the best course of action would be to keep restoration efforts small to start and only scale them up if necessary. Limited funding and available seedlings played a role in selection of the Quartz Mountain site. Also, any type of large scale planting or prescribed fire, thinning, or planting would likely not be in compliance with the Wilderness Act, and have the potential to have an impact on wilderness character.

Planting an equivalent amount of whitebark pine outside of wilderness was considered but eliminated from detailed analysis because it would not meet the purpose and need. Since 76% of the suitable whitebark pine habitat resides within wilderness, the ability to accomplish restoration of the species across its range would be severely hampered if actions are only taken outside of wilderness. In particular it would be challenging to meet the genetic and restoration needs outlined in the Region 6 Whitebark Pine Strategy. The

Pasayten Wilderness does border Canada; however the same issues that exist in the Pasayten also exist in Canada. On June 20, 2012, whitebark pine was legally listed in Canada as Endangered under Schedule 1 of the Species at Risk Act (SARA).

There are several problems with this analysis. First, regarding the first paragraph above, the EA does not provide evidence that shows impacts to whitebark pine on Quartz Mountain are unnatural. Does the Forest Service consider lightning-caused fire unnatural? Second, how will the Forest Service determine if scaling up is necessary? What measures will be applied to determine if more trammeling of wilderness is needed? At what point does the Forest Service believe a small amount of trammeling is appropriate and lawful, and at what point does such trammeling cease to be "in compliance with the Wilderness Act? How is trammeling of 3.8 or 3.9 acres consistent with the Wilderness Act and more trammeling not consistent with the Wilderness Act? Where in the Wilderness Act is trammeling allowed for this kind of activity?

Regarding the second paragraph, how was Quartz Mountain selected as the only site. What is wrong with experimenting on the 24% of habitat outside of wilderness to determine whether this program can even work? Will no restoration work for whitebark pine be carried on outside of wilderness?

These are all important questions the EA does not answer. It seems as though this is an experimental first step to a massive manipulation of the wilderness (and other areas). While there is no prohibition on overt trammeling outside of wilderness, the very essence of wilderness, its untrammeled nature is harmed by this proposal. It certainly appears they may be cumulative impacts and connected actions associated with this single project, an incremental gardening of the wilderness.

The purpose and need is based upon the assumption that whitebark pine declined in this area due to human influences. The record in the EA itself contradicts that. A lightning-caused fire burned some whitebark pines in the area, approximately 628 acres of mature trees, if the EA is accurate on this point. It was a natural event. The site-specific causes of decline are not well documented in the EA. Rather, the EA merely alleges problems without citing references.

For example, the excuse that fire is now more severe, and therefore unnatural, is not supported by any evidence in the EA. In fact, if one only looks at the EA, it claims 1929 as the beginning date of fire suppression, 80 years as the fire interval in these type of forests, and 2002 as the year of fires. This suggests that the fire interval was 73 years. In addition, the pre-fire composition of the site "was an estimated mix of 60% whitebark pine, 30% lodgepole pine (*Pinus contorta*), and 10% subalpine fir (*Abies lasiocarpa*)." This statement clearly suggests the area was not being taken over by subalpine fir and fire prone.

One of the biggest concerns is with how the agency portrays issues of fire history, so-called forest health and science. Increasingly, scientists have discovered that climate not fuel amounts is the main determinant of fire severity. Josh McDaniel, in an on-line article (http://grist.org/news/maindish/2006/10/23/mcdaniel/?source=daily Blazing Addles: What climate scientists have learned from Western wildfires, 23 October 2006) is revealing. That article discusses research that appeared in Science in August of 2007.

This corresponds with numerous other studies that show fire severity is a function of climate in the northern Rockies. We refer you to the excellent book, *Wildfire: A Century of Failed Policy* that includes many references showing this to be the case including studies done after the fires of 1988 in Yellowstone. We also refer you to what is now the recognized text book on this issue, by professor Baker (2009), *Fire Ecology in Rocky Mountain Landscapes*.

A review of Dr. Baker's book, written by a Forest Service researcher and listed on the Forest Service research website (Yaussy 2010) notes that, "Baker contends, with documented support, that frequent low-intensity fires have had little effect on shaping the ecosystems that exist, now or in the past, within the Rocky Mountains. Large, infrequent, high-severity fires are the only events which covered enough landscape area to be influential in his opinion."

The review further states:

> *To support the conclusion of infrequent, high-severity fires, the author relies on his expertise in fire history research. Misinterpretation of fire history statistics is a bone of contention for the author, and Baker devotes a chapter to informing his readers what, exactly, the different metrics mean, and how they should be interpreted, while giving examples of errors in the literature. Later in the book, it is revealed how some of these misinterpretations have carried over into the fire behavior software which is relied upon by fire management teams.*

Furthermore, the period from about 1950 to the mid-1980s was cooler and wetter than normal in this part of the US. Rather than suggesting that fire suppression is to blame, climate is a better explanation for the drop in acreage burned. Indeed, since a warmer and drier period is now in effect, fires have naturally increased in frequency and severity.

Herein is the crux of the controversy. If Baker is right, and the weight of scientific evidence now appears to be in his favor, the Forest Service is using outdated, scientifically-controversial material upon which to base its view of fire ecology and the role the amount of fuel and past fire suppression plays in this region. The EA needs to recognize and analyze this influential body of scientific information and clearly recognize that it contrasts sharply with agency assumptions and interpretation of fire history and ecology.

Regarding blister rust, nature is slowly healing the destruction wrought by humans through natural selection of resistant trees and seedlings. This natural process will provide the most durable and effective resistance to one of the pests (rust). In host-pathogen interactions, when a virulent pathogen first meets its host, it usually kills it quickly. However, this is neither advantageous to the host nor the pathogen. Thus, the relationship evolves over time, and eventually the pathogen does less and less damage to the host, until eventually the relationship may become mutualistic or symbiotic. Meddling in this natural process by artificially increasing the numbers of some resistant genotypes, is likely to select for virulence in the pathogen and extend the process, or even short circuit it.

The related white pine issue provides an interesting lesson. With the resistant white pine

breeding program, ratios of resistant to susceptible F2 progeny are very close to the 3:1 ratio expected with a single dominant resistance gene (Fins et al. 2001). The ability of pathogens to quickly mutate at avirulence loci to overcome resistance genes is well documented in many plant-pathogen interactions. In plants which are re-planted each year, this problem can be managed by monitoring the pathogen genotypes in the field, and then selecting host genotypes for the next year which are resistant to the current pathogen genotypes. Obviously, this is not possible with trees. Apparently, mutation to overcome white pine blister rust resistance has already occurred in California and Oregon (Fins et al. 2001). It is likely that this has also already occurred in Idaho locations where up to two thirds of the genetically resistant trees have been killed by rust (Fins et al. 2001).

How important is Quartz Mountain versus other places with whitebark pines? What data do you have that show no new trees will be planted by nutcrackers in the next several decades?

Impacts

The EA notes on page 15:

> *Cumulative effects analyses do not attempt to quantify the effects of past human actions by adding up all prior actions on an action-by-action basis. There are several reasons for not taking this approach. First, a catalog and analysis of all past actions would be impractical to compile and unduly costly to obtain. Current conditions have been impacted by innumerable actions over the last century and beyond, and trying to isolate the individual actions that continue to have residual impacts would be nearly impossible. Second, providing the details of past actions on an individual basis would not be useful to predict the cumulative effects of the proposed action. In fact, focusing on individual actions would be less accurate than looking at existing conditions, because there is limited information on the environmental impacts of individual past actions, and one cannot reasonably identify each and every action over the last century that has contributed to current conditions. Additionally, focusing on the impacts of past human actions risks ignoring the important residual effects of past natural events which may contribute to cumulative effects just as much as human actions. By looking at current conditions, residual effects of past human actions and natural events are captured, regardless of which particular action or event contributed those effects. Third, public scoping for this project did not identify any public interest or need for detailed information on individual past actions. Finally, the Council on Environmental Quality (CEQ) issued an interpretive memorandum on June 24, 2005 regarding analysis of past actions, which states, "agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.*

What this says, in essence is that the EA is inadequate. It blames past actions (blister rust introduction, fire suppression, and global warming) for the need to conduct this project yet refuses to look at those impacts in a detailed quantifiable manner. This not only misleads the public as to the ostensible need for the project, but also biases and predicted future actions.

Regarding terrestrial species, the EA states on page 18:

> *The change in habitat that would occur if this project is successful would be beneficial to bears, squirrels, chipmunks, Clark's nutcrackers, and other seed/nut eating birds and mammals. If stands of whitebark pine trees are established on the 3.9 acre project site there will be benefits to species in the form of tree structure for cover and nesting platforms and whitebark pine nuts as a food source. These trees may then provide a seed source for Clark's nutcrackers, which would spread them to adjacent areas for establishment.*

However, the EA rejects on page 9 an analysis of Clark's nutcrackers after the trees reach cone-bearing age, stating that asomething that would not occur for 60-80 year is beyond the scope of the analysis. If the analysis of presence of Clark's is beyond the scope, then the projection of benefits from whitebark pine 60 to 80 years in the future is also beyond the scope of this analysis.

Similarly, the other purported benefits would be well beyond the time horizon of this project, including benefits to grizzlies. Any trammeling activity could be justified under the specious excuse in the EA. The question that needs to be answered is how will 3.8 acres of seedlings--which may not even reach maturity, or if they do it will be many decades--prevent listing of the whitebark pine or help grizzlies, nutcrackers or other species?

Furthermore, the EA states on page 6

> *Natural whitebark pine regeneration is dependent on the seed-caching habits of Clark's nutcracker. Clark's nutcrackers are inefficient seed disperser, since their primary objective in caching whitebark pine seeds is to eat them. The current rate of decline in whitebark pine is exceeding the ability of the Clark's nutcracker to keep up with regeneration needs to ensure long-term persistence of the species.*

Thus the statement on page 18 that Clark's nutcrackers will disperse the seeds in 60 to 80 years seems untrue, as the birds can't keep up the pace. The EA states on page 22 that "Nutcrackers are effective long-distance seed dispersers." The quote above on page 6 of the EA contradicts that statement. The EA also leads one to believe that Clark's nutcrackers won't disperse seeds into this area due to the distance (see EA page 18). These contradictory statements make the EA a poor tool for the decisionmaker. They also strongly suggest this proposal is scientifically suspect and should not occur.

The EA does not indicate how much of the 628 acres of whitebark pine in the fire perimeter were actually killed. How many acres remain of whitebark pine? How will planting 3.8 or 3.9 acres aid in restoration of the 628 acres? One of the major problems with the EA is that it does not report on how many acres of whitebark pine habitat exist on Quartz Mountain now, within the Pasayten Wilderness, the Wenatchee National Forest, the adjacent national forests and national parks. We are only told that there is a 45% loss of White Bark Pine over 100 years. Such a statement is irrelevant without a greater understanding. For example, have there been other declines in whitebark pine abundance during drier periods, say between 900 and 1200 where fires were more prevalent? What will 3.8 acres of White Bark Pine planting do to the overall number of acres on

the forest or in the wilderness? These questions must be answered before making a reasoned decision on a project of this sort. This is especially crucial because this project would violate the Wilderness Act.

Furthermore, the rejection of an alternative that planted an equivalent acreage of White Bark Pine out of the wilderness because 75% of White bark Pine habitat is in wilderness is specious and contradicts agency policy. How will this project help out eighty years into the future?

There is a serious question whether the seeds that will be planted are truly rust resistant. Page 23 states:

> *Currently, efforts are underway to identify and develop blister rust-resistant genetics in whitebark pine, but genetic resistance to the non-native white pine blister rust is rare. Trees showing favorable rust resistance traits in the natural environment are often lost due to fire and mountain pine beetle. There are no known blister rust resistant trees within Whitebark Pine Seed Zone 2E. Collecting from phenotypically rust resistant trees one way to begin to increase blister rust resistance in future generations.*
>
> *Early results of a recent inoculation trial at Dorena Genetic Resource Center showed 76.6% of five-year-old seedlings had stem symptoms one year after inoculation. It is important to note that the seed for this trial was collected across the landscape from a small number of surviving trees, thus more likely to already be self-selected for blister rust resistance (R. Sniezko Lead Researcher). Wild collected seed, used for restoration efforts across the Region, has been taken from trees showing lower levels of blister rust infection than the stand as a whole. This wild collected seed, used for restoration, also maintains the species genetic diversity as well as favoring better blister rust resistance than would occur under natural regeneration alone.*

It is obvious from the above paragraphs that not much is known about the resistance of trees to rust. There is an assumption that many trees that are resistant are lost to beetles and fire. What evidence is there that rust resistant trees are more prone to fires and beetles than other whitebark pines? The monitoring plan does not indicate how rust resistance will be determined over the long-term. Will pine beetles attack the planted trees in 80 years anyway, removing any supposed benefit from their planting? In essence, this is an experiment. It should not occur in wilderness.

Wilderness

The Wilderness analysis is deeply flawed. It assumes fires that have burned in the area are unnaturally hot without citing any evidence. While blister rust is an unnatural introduction, it is not an overt trammeling of the wilderness as planting would be. It was an inadvertent action. It takes a deliberately conscious act to confine, tether or trammel something. The EA also assumes that natural fire is not natural (see page 33). In sum, the project violates the basic premise of wilderness as a self-willed landscape. Howard Zahniser, the author of the Wilderness Act, put it best in 1963 when he penned an editorial whose title was *Guardians Not Gardeners*.

The Wilderness Act does not allow this of activity, regardless of how well intended it may be. Furthermore, this is not one of the activities, which could be justified by the minimum requirements of section 4(c) of the Wilderness Act. That section is directed at nonconforming actions such as the use of motor vehicles or structures that may only occur under very limited circumstances for the singular purpose of wilderness preservation. That is a very high bar.

Rather, this action strikes at the very heart of wilderness as untrammeled or self-willed. The agencies do not have the authority to purposely trammel wilderness by this kind of alternation of natural processes, which seeks to reverse the action of natural fire and the purported absence of whitebark seed planting by native birds.

The argument that this will help the wilderness is ludicrous. The EA suggest that overt trammeling will be minimal because the planting would occur on only 3.8 acres. However, the EA also claims the positive ecological benefits from planting 3.8 acres are significant. It can't be both ways. If this project is only 3.8 or 3.9 acres, it can't be ecologically significant and be consistent with the analysis claiming minimal impacts.

At the same time, wilderness is greatly harmed by this action. Overt trammeling, regardless of the scale, harms wilderness character. Character includes both tangible and intangible qualities. It is more than merely the biological resources. Wilderness character is about allowing natural processes to operate. The question needs to be asked where in the Wilderness Act is active restoration valued above the untrammeled nature or process of wilderness?

The EA is also flawed in that it assigns a positive impact on naturalness from this project and negative impacts to doing nothing. There is no evidence in the EA this fire was anything but natural. Claiming deliberate planting is natural defies the very meaning of the word. While whitebark pines are natural in the area, so is fire. Not every acre will be populated by whitebark pines that could host them at any given time. The value of wilderness is that we can see how naturally this area responds to fire given the current conditions of climate and other factors.

The EA also refuses to look at the past to gauge what kind of broad changes that may have occurred that may have increased or decreased the number of whitebark pines on the landscape. The EA takes a distorted view of wildness and natural processes.

The Forest Plan does not allow this kind of manipulation. The EA states on page 4:

> • *MA15B-22A There should be no long-term modification of natural plant succession as a result of human activities on areas outside campsites, administrative sites, and designated trail tread. Acceptable modifications are those which can recover in one growing season.*

This proposal is a long-term modification of plant succession. The current state of plant succession is natural and a result of natural fire.

The EA also notes on the same page regarding the forest plan:

> • *MA15B-19F Insect or disease outbreaks shall not be artificially controlled unless it is necessary to prevent unacceptable resource damage to resources on adjacent lands or an*

unnatural loss to the wilderness resource. If control becomes necessary, it shall be carried out by measures that have the least adverse impact on the wilderness resource and are compatible with wilderness objectives.

The trees were killed by a natural event, fire, and not by insects and disease, according to the EA. Thus, this provision is not applicable to this instance.

The fact this is an experimental program suggests that the agency should look at the Forest Manual and reject this proposal. The manual at 2324.42 notes:

Review proposals to conduct research in wilderness to ensure that research areas outside wilderness could not provide similar research opportunities. Direct projects that would jeopardize wilderness values to areas outside wilderness.

The EA clearly notes that this project would harm wilderness values. As such, it is more appropriate outside of wilderness.

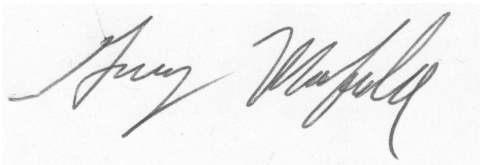
Summary

This project has a significant negative impact on wilderness. It overtly trammels wilderness whereas the results of global warming, though undesirable, are not trammeling, as they are inadvertent. Further, fire suppression has been allowed in wilderness. The best way to deal with impacts of past fire suppression is to allow natural fire to play its role.

The EA is inadequate and confused. The project should be scrapped. Any experiment of this type should be confined to nonwilderness lands.

Please keep Wilderness Watch updated on this project. We would be interested in meeting with you or other project staff, perhaps on site, to explore the project and our concerns in more detail.

Sincerely,



Gary Macfarlane
Board member