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Ms. Hollingshead:

The following are comments submitted by the Native Forest Network and National Forest Protection Alliance regarding the Middle East Fork Hazardous Fuel Reduction project. Please also incorporate the comments of The Ecology Center and Friends of the Bitterroot, as they accurately represent our concerns.

### **Fire**

It appears that there is not a single citation in sections of the DEIS dealing with fire which supports the method of alternative analysis the BNF has chosen to implement. Nor do there appear to be any scientific citations which evaluate the measurement indicators of flame length, fire regime condition class, rate of spread or crowning index as they relate to community protection.

Much of the analysis of the alternatives' effects on fire focuses on aggregate, or average, variables applied at a landscape level. These variables, or measurement indicators as they are referred to in the DEIS, include flame length, rate of spread, fire regime condition class and crowning potential. There are several problems with this approach to analysis and it has been applied inappropriately to Alternative 3.

First of all, as stated in the DEIS, reduction of fuel loads on a landscape level is not one of the objectives of this project in itself. The goal of reducing fuels on a landscape level has been assumed by the Bitterroot National Forest to be the best way to accomplish one of its main goals, protection of the East Fork Community from wildfires. However there is little documentation in the DEIS to support that this proxy treatment is effective in protecting communities or that it is an efficient use of taxpayer money. This is especially true considering that Alternative 2 leaves some areas directly around homes untreated.

The DEIS appears to arbitrarily adopt the four measurement indicators of fire regime condition class, flame length, crowning index and rate of spread. It then uses statistics averaged across the entire project area for each of these indicators to determine success of treatments and compare alternatives. These indicator variables are used as proxies for "community protection" without any scientific citation that they actually demonstrate on the ground, effective protection from wildfires for the East Fork community. This seems to be assumed and all further analysis and comparison of alternatives hinges directly on this assumption.

There are serious problems with this. For instance, for each of the indicator variables, a single number is given which seems to represent an average statistic for the given variable across the entire project area. This neither gives any consideration to the spatial distribution or variation of each of these variables across a landscape, nor is it an effective method of evaluation or comparison for Alternative 3. Alternative 3 does not intend to treat fuels on a landscape level. It attempts to provide targeted protection to communities and firefighters by focusing fuels treatments and fuel reduction efforts directly around the East Fork community. Evaluating

Alternative 3's effectiveness on a landscape scale instead of in the specific area that it is meant to treat is non-sequitor and completely inappropriate. For this reason, Alternative 3 and the No Action alternative are often cast as commensurate alternatives. As has been shown in Jack Cohen's research, this simply cannot be true. That the BNF's analysis did not reveal the well known and widely accepted benefits of treatments proposed by Jack Cohen and Nowicki speaks to some of the larger problems with the analysis.

Additionally, by neglecting to analyze the risk to communities that Alternative 2 poses by treating only a small, and seemingly arbitrary, portion of the landscape, and by leaving portions directly around communities completely untreated the BNF has failed to complete a holistic analysis of the treatment's effects on community protection. Simply put, even if the indicator variables used in this analysis are tightly correlated with actual community protection, there is no credence given to the spatial distribution of fire and fire characteristics across the landscape because analysis is reduced to single number, averaged statistics for each indicator variable.

A comprehensive look at treatment effects on fire would include a focused look at the treatments' effects on fuel moisture and the probability of ignitions. Logging, especially as is proposed in Alternative 2 of the DEIS, is widely known to dry out forests, fuels, and increase wind penetration in stands. Thinned or logged stands allow much greater penetration of solar radiation to the forest floor which will likely dessicate downed fuels and can lead to increased general temperatures within the forest understory. Further, with less canopy evapotranspiration will not be captured and retained as it would if Alternative 3 were implemented and instead significant amounts of evaporated water will escape, leading to potentially greater dessication of the forest and forest fuels.

Finally, what is also not disclosed is that without continued maintenance of the more open and ponderosa pine dominated forest conditions that the BNF will create through Alternative 2, the fire risk to communities will likely increase significantly. Without repeated treatments, a young and dense understory will begin to encroach, creating dense fine fuels and increased ladder fuels throughout the project area. How can the BNF guarantee that they will have funding and long standing commitment to continually invest resources into these repeated treatments? What will be the risk to community protection efforts if treatments are not maintained?

## **Fuels**

The Native Forest Network and National Forest Protection Alliance agree with the discussion on Fuels and Fuel Loads provided by Joseph W. Fox, Ph.D. and we request that Dr. Fox's comments be incorporated into ours.

Dr. Fox's comments and objections regarding Fuel and Fuel Loads as pertaining to the Middle East Fork Hazardous Fuel Reduction DEIS can be summed up as follows:

Fuel loads may not be determinative of how wildland fires behave.

1. The Forest Service may not have adequately disclosed the well-known controversy debated among fire scientists over whether stand-replacement fires are "weather" or "fuel" driven events and whether fuel loads are determinative of fire severity. Assumptions that fuel loads are determinative of fire behavior are rigorously disputed by common knowledge found in the community of experts and scientists and research published in professional journals. The Forest Service has a duty to disclose risks and any scientific uncertainty,<sup>1</sup> and give a reasoned analysis and response to opposing scientific opinion.<sup>2</sup>

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<sup>1</sup> *Seattle Audubon Soc'y v. Moseley*, 798 F.Supp. at 1479; *Seattle Audu. Soc'y v. Espy*, 998 F.2d at 704.

2. The MEF HFR DEIS provides little contrary evidence for its assumption that timber harvest will impede stand-replacing fires and did not adequately disclose research that reveals landscapes that have experienced timber harvest or salvage cuts often experience enhanced wildfire intensity. The Forest Service has a duty to consider other peer-reviews of agency analyses.<sup>3</sup>
3. The MEF HFR DEIS does not offer baseline data for hazard fuel accumulation in the absence of a Douglas-fir beetle outbreak. The Forest Service has a duty to eschew conclusory statements unsupported by data.<sup>4</sup>
4. The Forest Service has a duty adequately reveal true costs and benefits.<sup>5</sup> The MEF HFR DEIS does not seem to adequately disclose the effectiveness of the treatments for hazard fuel reduction.
5. The MEF HFR DEIS does not seem to adequately disclose that its assumption that the treatment of fuel three miles away will have an impact on the Wildland Urban

### **Douglas Fir Bark Beetle and Bark Beetles in General**

There is an near absolute dearth of peer reviewed scientific literature included in the DEIS that would support the BNF's contention that the proposed treatments in Alternative 2 will help to treat the "beetle problem". Although in the DEIS the BNF may not explicitly say it can stop this beetle epidemic, it has allowed the public to believe so and should remedy this misunderstanding. Further, in public comments by several Forest Service employees it has been openly and unmistakably stated, as a matter of absolute fact, that the proposed treatments in Alternative 2 will be able to affect the spread of beetles. In order to clear this up, the BNF should be very clear in the FEIS what it's intended goals and expected outcomes are for the beetle treatments and their effects on beetle populations and spread.

For several reasons, aside from the fact that there is no scientific consensus that treatments can significantly affect beetle spread on a landscape scale, it is highly unlikely that the BNF's Alternative 2 will have an impact on beetle spread in the East Fork drainage.

1. The BNF is only treating a small portion of the landscape infected with beetles, so source populations will exist post treatment.
2. Beetle populations in the East Fork are at extremely high levels, meaning they can overwhelm trees more easily and their populations will not be significantly reduced by treatments. This is especially true since a large portion of the logging focuses on removing dead and dying trees who are no longer of value to the beetles and who have already hatched their brood.
3. The Douglas fir trees that are being infested by beetles are at the prime age of susceptibility for bark beetle attack. The Douglas fir are primarily of single age class of mature and large diameter trees that have reduced defensibility against bark beetles.
4. We are in a period of drought that has lasted for many years and may continue well into the future.
5. We are in a period of global and local warming that has elevated bark beetle populations and in many cases is allowing beetles to double, or increase, their annual reproduction rate.

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<sup>2</sup> *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1023-24 (9th Cir.1980) (*Warm Springs II*).

<sup>3</sup> *Baltimore Gas and Elec. Co. v. Nat. Res. Defense Council (NRDC)*, 462 U.S. 87 (1983) at 103.

<sup>4</sup> *Warm Springs II*, 621 F.2d at 1024.

<sup>5</sup> *California v. Block*, 690 F.2d 753, 773 (9th Cir.1982).

With all of these variables taken into consideration, the BNF should be honest and open with the public that it is highly unlikely, if at all possible, that treatments will significantly impact the trend of beetle kill in the East Fork drainage.

Finally, hazard rating is not equivalent with risk of beetle infestation. This should be clearly explained in the FEIS.

Furthermore, the Native Forest Network and National Forest Protection Alliance agree with the discussion on Douglas-fir bark beetles provided by Joseph W. Fox, Ph.D. and we request that Dr. Fox's comments be incorporated into ours.

Dr. Fox's comments and objections regarding Douglas-fir bark beetle as pertaining to the Middle East Fork Hazardous Fuel Reduction DEIS can be summed up as follows:

The proposed actions may not effect Douglas-fir beetle infestations.

1. First, while the Forest Service is obliged to fully inform the public, it rarely corrects the publicity surrounding the MEF HFR DEIS that implies that some proposed treatments are designed to end the DFB epidemic. The Forest Service is obliged to "ensure that the agency will not act on incomplete information, only to regret its decision after it is too late to correct,"<sup>6</sup> eschew conclusory statements unsupported by data,<sup>7</sup> and avoid the appearance of favoring certain economic interests over biological imperatives.<sup>8</sup>
2. The Forest Service does not seem to fully disclose the equivocal information about the efficacy of logging forest stands to reduce insect-caused tree mortality.
3. The Forest Service does not seem to fully disclose the uncertainty inherent in risk and hazard rating systems.

Additionally, the Native Forest Network and National Forest Protection Alliance agree with the discussion on bark beetles provided by Scott Hoffman Black of the Xerces Society and we request that Mr. Black's comments be incorporated into ours.

Mr. Black's comments and objections regarding bark beetles as pertaining to the Middle East Fork Hazardous Fuel Reduction DEIS can be summed up as follows:

1. The USFS has failed to adequately disclose scientifically credible background information supporting proposed actions in the Middle East Fork Hazardous Fuel Reduction DEIS.
2. Although it has become common to suggest that stand density plays a role in bark beetle outbreaks direct evidence to support this claim is mixed.

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<sup>6</sup> *Marsh v. Oregon Natural Resource Council (ONRC)*, 109 S.Ct. 1851 (1989) at 1858.

<sup>7</sup> *Warm Springs II*, 621 F.2d at 1024.

<sup>8</sup> ESA, 16 U.S.C. § 1600 *et seq.*

3. Waring and Pittman (1985) found that where canopy density was reduced either by logging or *insects themselves*, surviving trees increased growth and resin production, therefore increasing their resistance to attack by mountain pine beetle.
4. There is really no evidence that other types of logging such as salvage, intermediate commercial treatment or sanitation salvage (that would log large trees) have any effect on current or future infestations of bark beetles.
5. Throughout section 3.2.7 Desired Future Conditions and 3.2.8 Environmental Consequences you continue to purport that these logging treatments will lower infestation levels of Douglas fir beetle and other bark beetle species without a single citation.
6. Although the evidence is mixed as to whether thinning can be justified in the longer term effort to manage stands for bark beetle, there is no evidence (either included in the EIS or in the literature at large) that supports salvage, intermediate commercial treatment, regeneration or sanitation salvage logging for control of bark beetle.
7. There is no data to support salvage, intermediate commercial treatment, regeneration or sanitation salvage logging as a means to control bark beetle and there is information to suggest that it can make matters worse.
8. Although the Forest Service often asserts that the most effective means of reducing losses to the bark beetle is by risk rating trees with subsequent removal of those that are high-risk. There is no evidence that this works to protect trees in a diverse forest.

### **Cumulative impacts**

Although there is a detailed list of past and present activities that may have contributed to the cumulative impacts of management in the Middle East Fork project area, there is no discussion of what the cumulative impacts have actually been and how this project would add to those impacts.

Sincerely,

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