

May 14, 2004

Bruce Higgins
Don Carroll
Lolo National Forest
Missoula Ranger District
Building 24-A
Fort Missoula, MT 59804

RE: Sawmill Gulch Fuels Reduction

Dear Mr. Higgins and Mr. Carroll:

I am very familiar with the Sawmill Gulch area of the Rattlesnake National Recreation Area, having hiked in the area numerous times over the past 8 years. In addition, since learning about the proposed Sawmill Gulch Fuels Reduction project I have taken two detailed monitoring trips into the project area: walking the proposed units, getting a better feel for the area and taking photos.

As I'm sure you are aware, the Sawmill Gulch Fuels Reduction project area contains a fair amount of variation in terms of slope and aspect. For example, while unit 12 is primarily south-facing, fairly steep-sloped, drier and the vegetation consists mainly of ponderosa pine, other units such as unit 1 offer a greater mix of slope, aspect and moisture. Therefore, parts of this unit are north-facing, cooler and moister. A similar situation is represented in some of the other units we visited within the project area.

I was also struck by the fact that this project isn't really in a highly populated area. On my monitoring trip I saw two homes near the project area, but each of these homes had a massive field between the houses and the project area. I'm not sure that this area represents one of the priority areas on the Lolo where fuel reduction should take place.

The reason I bring up the variation within the project area is because we continue to be very concerned with what we would characterize as the U.S. Forest Service's "war against Douglas fir." As you are aware, Douglas fir is a native trees specie to Montana and is valuable in terms wildlife habitat, nesting, food source, etc.

While we walked the units of the project proposed for commercial harvest we were struck by the fact that some of the oldest and largest trees within portions of the units were in fact Douglas fir. I am providing you with photos which should document this fact quite nicely.

You state in your April 16, 2004 letter about the Sawmill Gulch Fuels Reduction project that as a result of the project "Commercial harvest will remove trees between 6 inches and 20 inches in diameter. The emphasis of this project will be Douglas-fir, but will

include some western larch and ponderosa pine. The idea is to remove the smaller trees to reduce the potential for a ground fire that could kill the dominant trees."

If the "idea" is indeed to "remove the smaller trees to reduce the potential for a ground fire that could kill the dominant trees" then the Native Forest Network does not believe that as part of this project larger Douglass fir in the 12" to 20" range should be cut down. For example, in many part of units 1, 2 and 6 that we walked through we noticed that Douglas fir were the largest trees, yet some of the larger trees were more in the 16" to 20" diameter range. We are greatly concerned that under the parameters of this project that these large Douglas fir - the largest trees within certain parts of the units - could actually be cut down under the guise of "fuels reduction."

Therefore, as part of the Sawmill Gulch Fuels Reduction project we are opposed to the commercial harvest of any larger trees (ie in the 12" to 20" diameter range) in the project area regardless of whether it's a Douglas fir, ponderosa pine or Western larch.

Being quite familiar with the area and having spent two monitoring trips within the project area units, we feel confident that the U.S. Forest Service can achieve its fuel reduction goals by focusing on trees 12" and under.

We also feel the project is deficient in terms of "fuels reduction" in units 1 through 10 because in these units the method of fuels reduction is either 1) commercial harvest and slashing, piling and burning or 2) slashing, piling and burning.

We continue to believe that the best, most proven, method for fuels reduction is fire. We are supportive of the hand slashing and under-burning that is scheduled to take place in units 11 and 12. We remain support of fuel reduction done in such a manner because we believe it is the most beneficial in terms of effectively reducing fuels and returning fire to these fire adapted ecosystems.

We just are not convinced that fuel reduction is achieved by cutting down trees up to 20" in diameter, especially in a forest where a 20" diameter trees is in the top 10% of large trees, and then simply burning the piles of logging slash without running a prescribed burn through the units.

We would highly suggest that the prescription for units 1, 2 and 6 be changed to limit tree cutting to trees 12" in diameter and under followed by under-burning of the entire units. Again, we feel as if the "idea" of the project is to "remove the smaller trees to reduce the potential for a ground fire that could kill the dominant trees" this course of action is far superior to the proposal of allowing logging of trees up to 20" in diameter and doing no under-burning of the area.

The other reason for this rationale is the fact that research indicates that the ponderosa pine actually require fire to scorch their bark periodically if they are to grow to more of the "old-growth" characteristics, which we also seem to be supportive of. In other words,

by just doing mechanical fuel reduction and no under burning your are not following the best available science in terms of ponderosa pine forests.

Along these same lines, I'd like to call your attention to the report from Forest Trust titled "The Effects of Fuel Management on Fire Behavior in Ponderosa Pine: The Status of our Knowledge" (<http://theforestrust.org/images/swcenter/pdf/WorkingPaper2.pdf>). This paper assesses existing research on the effectiveness of hazardous fuel reduction in changing wildfire behavior. The authors review more than 250 papers that evaluate three types of fuel treatment in relation to fire behavior in western forests: prescribed fire, mechanical thinning, and a combination of thinning and burning. The authors also survey the literature to evaluate recent suggestions by policy makers that commercial logging can be used to treat dense forest fuels. The paper focuses on ponderosa pine forest types.

Major findings of the report include:

- o Although the assertion is frequently made that simply reducing tree density can reduce wildfire hazard, the scientific literature provides tenuous support for this hypothesis.
- o The literature leaves little doubt, however, that fuel treatments can modify fire behavior. Thus, factors other than tree density, such as the distance from the ground to the base of the tree crown, surface vegetation and dead materials play a key role. Research has not yet fully developed the relationship among these factors in changing fire behavior.
- o Substantial evidence supports the effectiveness of prescribed fire, a treatment that addresses all of the factors mentioned above. Significantly, several empirical studies demonstrated the effectiveness of prescribed fire in altering wildfire behavior.
- o By contrast, we found a limited number of papers on the effects of mechanical thinning alone on wildfire behavior. The most extensive research involved mathematical simulation of the impact of mechanical thinning on wildfire behavior. However, the results of this research are highly variable.
- o A more limited number of studies addressed the effectiveness of a combination of thinning and burning in moderating wildfire behavior. The impacts varied, depending on the treatment of thinning slash prior to burning. Again, crown base height appeared as important a factor as tree density. The research community is still building a scientific basis for this combination of treatments.
- o The proposal that commercial logging can reduce the incidence of canopy fire was untested in the scientific literature. Commercial logging focuses on large diameter trees and does not address crown base height - the branches, seedlings and saplings which contribute so significantly to the "ladder effect" in wildfire behavior.

o We found the fewest studies in the most reliable class - empirical research. We found the greatest number of studies in the least reliable class of research - reports of personal observation. Several other reviews of the literature confirm this finding, stating that the evidence of the efficacy of fuel treatment for reducing wildfire damage is largely anecdotal.

o The results of simulation studies are highly variable, in terms of such factors as fire spread, intensity and the occurrence of spotting and crowning.

o Scientists recognize that large scale prescribed burning and mechanical thinning are still experimental and may yet reveal unanticipated effects on biodiversity, wildlife populations and ecosystem function.

We feel as if many of the findings from this review of 250 papers that evaluate fuels treatments in relation to fire behavior in western forests are being ignored in this, and other, "fuel reduction" projects on the Lolo National Forest.

The other point I'd just like to raise is that it's very difficult to determine the scale of this project given that there is no mention of how many trees are to be removed via commercial harvest during the project. For example, how many board feet of trees are we talking about? What will be the basal area within the units following commercial harvest? Clearly all trees 6" to 20" inches are not going to be removed. We would recommend that before you make a decision on this project that you provide the public with this basic information.

Thank you for taking the time to review our comments. Again, if the focus and the idea of the project is to reduce fuel loads, we just do not believe that this is accomplished through cutting down the larger trees in the project area in the 12" to 20" diameter range, especially without any under-burning.

Sincerely,

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Photo Explanations:

Sawmill #1, #2, #3, #4, #5, #7, #8 : Much of the project area is fairly open. This is from Unit 1, proposed for commercial harvest. As you can clearly see, most of the trees in this part of the unit are under 12" in diameter and none of the trees are over 20" in diameter, making the 20" diameter cap useless. Also, note the

break-up within the forest canopy. This is not a project area where the canopy is closed. There are many meadows (either natural or a result of past logging). Some of the photos (see #8) include larger diameter Douglas fir that would most certainly be cut down as part of the fuel reduction.

Sawmill #6: Western larch on a north-facing slope within one of the proposed commercial harvest units.