Southern Oregon Climate Action Now

SOCAN

Confronting Climate Change

https://socan.eco

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Recommendations numbers and in italics

To Whom It May Concern:

After reading the Environmental Assessment (EA) on the Bear Grub Vegetation Management Proposal and attending a BLM ZOOM information session, I write as a resident of Jackson County, with a home on Griffin Lane immediately adjacent to one of the tracts designated in the proposal, to express concerns regarding the EA on behalf of myself and Southern Oregon Climate Action Now (socan.eco), an organization of 1500 Southern Oregon residents concerned about climate change.

I would like to note that while, as an adjacent landowner, I am clearly a stakeholder, there are many others who use the area for recreation and are equally significant stakeholders who should be considered. Many area residents, for example, use the beautiful trails in this region for solace and spiritual uplift. While it may seem that the O&C requirement impose a harvest requirement on the area, the recreational interests of Americans should not be ignored.

It is also worth noting that the O & C Act (O&C 1937), upon which many BLM management decisions seem based, clearly requires management for sustainable yield. The Act states that these forests should be managed: "for permanent forest production, and the timber thereon shall be sold, cut, and removed in conformity with the principal of sustained yield for the purpose of providing a permanent source of timber supply, protecting watersheds, regulating stream flow, and contributing to the economic stability of local communities and industries, and providing recreational facilities:" While sustainability has a plethora of meanings depending on the context and user, some relevant meanings being discussed in Scott and Brown (2007), I interpret this to mean that the BLM should manage forest such that adequate timber harvest is maintained in perpetuity. This implies, I suggest, that the BLM should acknowledge environmental conditions that are changing (notably climate) and incorporate trends and projections into their management planning. The statement reported above also makes clear that these publicly owned forests should be managed for the public since providing recreational facilities is included.

It is unfortunate that many view our treasured natural resources merely as targets for short-term economic exploitation rather than as resources held in long-term trust for both current and future generations of Americans. I encourage those at the BLM concerned about healthy forests to take a broader and more long-term view of the management goals for publicly owned BLM land; we should be concerned about more than simply 'getting the cut out' today, but also should focus on how long-term environmental trends might impact the health and viability of our forests, and manage so they can be

enjoyed by future generations. It is in this vein that I also write on behalf of the 1500 Southern Oregonians who are Southern Oregon Climate Action Now.

I start by offering a couple of comments by way of my personal background.

First, I am a retired faculty member in biology and environmental science from Southeast Missouri State University. I taught ecology and conservation biology and undertook conservation and restoration research in bottomland hardwood forests of Southeast Missouri and tropical moist forests of Northwestern Costa Rica. This has given me a greater concern than just my personal neighborly interest. My combination of experience and concerns give me a strong professional interest in projects such as this.

Second, because of my extensive background of literature research and concern in the arena of climate science dating back some three decades generated as a result of my professional teaching career, I am also extremely concerned about the intersection between proposals such as this and our collective efforts to avert the looming climate crisis. As a consequence of this concern, I view forest management proposals in the dual context of their impact on greenhouse gas emissions and their potential to influence forest carbon capture and sequestration. In the context of these interests, I have become increasingly concerned about the failure of forest management decision-making to recognize (a) that future climate will be so different from historic climate that attempts to restore forests to some historic composition are naïve and doomed, and (b) consequently, we should be applying climate smart principles (e.g. Stein *et al.* 2014) that recognize this reality in our forest management decisions and develop management proposals accordingly. A third concern is whether forests are being managed to promote their adaptive capacity (Smit and Wandel 2006) to continue functioning as conditions change.

Our understanding of the future probable climatic conditions in Oregon suggest profoundly negative outcomes for many of our tree species and forest associations. For example, climate envelope projections developed by Gerald Rehfeldt (Rehfeldt *et al.* 2006) and his team in Idaho indicate that by the end of the century, climate will have dramatically reduced the range and viability for Douglas fir (see Crookston 2020). These projections are based on the so-called business as usual scenario which will likely impose on Southern Oregon a 9°F average temperature increase by the end of the century when compared to late 1980-2010 average (USGS 2020). Meanwhile other studies of projections have suggested that Ponderosa pine and the oaks might experience an expansion in the range of appropriate climatic conditions (e.g. Halofsky *et al.* 2020). However, the climate envelope studies mentioned above (see Crookston 2020) suggest that these species also may be faring less well by late century than now. Although the confusion in projected outcomes is unsettling, continuing to practice forestry while ignoring the reality that future climate will have an uncertain impact does not serve our forests, our biodiversity, or our human community well.

Recommendation 1

While proposing techniques that are contrary to the Southwest Oregon Resource Management Plan (BLM 2016) would be difficult, it should be incumbent upon managers that their proposals also recognize climatic reality. I see nowhere in the Bear Grub proposal that climate change is acknowledged as a critical factor much less is meaningful consideration given to actions that might reflect that recognition. Appendix B.3 delineating the treatment protocols includes the note (Appendices p. 48) that: "To encourage the maintenance and establishment of drought tolerant and fire resilient species, always

favor leaving, in order of preference: sugar pine, ponderosa pine, incense cedar, Douglas-fir, and white fir."

If allowance can be given in the treatments for relative drought tolerance among species, surely allowance should equally be given to retaining species with a greater potential ability to tolerate at least short-term climate changes expected within the treatment area. For example, without compromising the 8-inch thinning guidelines for the fuel reduction action, it should be possible to promote removal of Douglas fir and retention of Ponderosa pine, Pacific madrone, and oaks where these are on the diameter cusp.

Recommendation 2

Under the National Environmental Policy Act requirements for discussion of cumulative effects, it is expected that the effect of the proposed action and other actions occurring or reasonably expected to occur will be considered: "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (CEQ 1997). One of the most dramatic human actions that is affecting natural systems across the planet is climate change induced by human behavior i.e. emissions of greenhouse gases (Nucitelli 2018). Yet the Bear Grub Environmental Assessment totally ignores climate change in its discussion of cumulative impacts. This is surprising since the EA acknowledges (p. 54) without explanation, that "future trends suggest the suitability for large wildfire growth is expected to increase…" The main reason for this expectation is climate change increasing temperature and reducing soil and vegetation moisture. Yet, the only effects that are considered in the EA are those resulting from forest management itself as this affects light penetration and competition among stems for resources. This omission occurs despite the availability of an abundance of reports (e.g. Halofsky *et al.* 2020) and data regarding how climate change is currently impacting and is expected further to impact Southern Oregon. The only reference to climate occurs in discussion (p. 56) of the impact of thinning on wind and stand micro-climate.

The BLM should revisit the EA and incorporate a meaningful assessment of potential climate change impacts on the forests and adopt management proposals and include in the proposed Alternatives actions that are genuinely climate smart (Stein et al., 2014).

Recommendation 3

The fuels reduction treatment should reduce the risk of rapid spread of fire through these stands and into the crown. Indeed, this treatment emulates what many of us have been doing, and the county building code requires in the vicinity of new home construction, on land which supports an equally dense forest understory.

As an adjacent landowner, along with residents of the region all of whom are at risk either from fire itself or the smoke resulting from fires, I support efforts to reduce fuel hazard by thinning the overly dense understory of BLM forests in the vicinity of human habitation.

Recommendation 4

Both as neighbors and climate concerned Oregonians, we are, however, less supportive of the proposal to impose 4-acre harvest activities that substantially reducing the canopy to 25 - 35% of its current

cover. This will have the consequence of promoting understory regrowth and enhancing fire risk. It seems totally counter-intuitive to reduce hazardous fuel in one section of a site and then treat another section in a way that will increase fire risk.

It would be preferable to apply Alternative 4 treatment in the harvest situations where the size of harvest targets is reduced to < 1 acre and canopy cover (with a target of 45 to 60%) is less compromised.

Recommendation 5:

I also note that in terms of carbon storage, the management practices proposed in Bear Grub will all result in a substantial reduction in stored carbon (OGWC 2018, citing Clark *et al.* 2011), not just over the short term, but for several decades. While these assessments refer to forests of Western and Eastern Oregon, assuredly forests vary in their response to treatment.

Given our current understanding of the climate crisis and the need to reduce greenhouse gas emissions and promote carbon capture and storage (i.e sequestration) the EA should assess the carbon impacts of the alternatives and promote carbon sequestration while offering remedies to mitigate those actions that enhance carbon loss.

Recommendation 6:

Climate smart principles demands an approach to forest management that recognizes that we cannot assume future climate conditions will be the same as past climate conditions and requires the application of a diversity of techniques that acknowledge an unknown future accompanied by extensive monitoring to assess the consequences of those techniques. This should be accompanied by reflection and adjustment of behavior if this appears necessary. There appears no evidence of such an approach in the EA. Rather the EA relies on adherence to historical and conventional tactics that fail to account for the changing climate. This EA appears to follow protocols established before climate change was acknowledged and trends understood.

Surely it is time to acknowledge climate change projections and accept and incorporate best available climate science into the management of our forests.

Recommendation 7:

We are well aware of the fact that a one size fits all approach to forest management fails to recognize small scale to micro-climatic differences. It is thus unfortunate that the proposal contains no recognition of the fact that south facing slopes are different from north facing slopes, ridgetops, and valley floors in terms of their climate experience, probable future conditions, and the susceptibility of species.

The EA should incorporate into the alternatives proposals that reflect the differences among stands in terms of their topographic location.

For these reasons, I recommend either adopting Alternative 4 when undertaking the commercial thinning or withdrawing the entire project proposal and revisiting it to incorporate the above recommendations while recognizing climate change as having critically important impact on the system and adoption of climate smart principles in the proposed alternatives.

Recommendation 8:

While these comments are based on a review of the Environmental Assessment and involved but limited inspection of proposed treatment units, we commend to your attention the submission of the Applegate Neighborhood Network which is based on a more extensive review of proposed treatment sites. The comments of the Applegate Partnership and Watershed Council Board - on which I also serve - also deserve consideration.

Footnote. The title of Bear Grub as a Vegetation Management Project seems to be a nomenclatural stretch since the focus is only on forest tree species. Maybe 'Bear Grub Forest Management Project' would be more appropriate.

Citations

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