

6 January 2020

Eric Vane  
Inyo National Forest  
351 Pacu Lane, Suite 200  
Bishop, California 93514  
*Via email – ericdvane@fs.fed.us*

*RE: Eastern Sierra Fire Restoration and Maintenance Project*

Dear Eric and the rest of the ID Team,

Thank you for the opportunity to comment on this exciting project designed to accelerate the application of fire across a good portion of the Inyo National Forest.

I am strongly supportive of this document's programmatic approach to enabling more fire application on the public forest lands of the Inyo. It is my, as well as I hope your, vision that this programmatic approach allows for more efficient deployment of resources directly to the ground rather than to the keyboard.

While I strongly agree with and support the rationale stated in the **Need for the Proposal** that "historic fire frequency and severity must be restored...at a larger scale to achieve desired conditions across fire dependent ecosystems" (p4), I offer the following comments on the document and proposed project.

### **Overall comments**

While strong support for the current programmatic approach is noted above, I do have concerns that site specific public knowledge and notice stands to be lost in the shuffle. To help design the best possible projects while building the public support necessary to greatly ramp up the level of fire on the landscape, I would offer that the Forest hold **field trips** each Fall or Spring into the areas proposed for treatment the following season. Said trips should also visit past projects so people may see the results interpreted first hand. At the very least, the public should be made aware each year of what polygons of public forest land are being considered for treatment and afforded the opportunity to share site-specific comments and input.

The document is silent with regard to one of the greatest threats facing the integrity of our local forest ecosystems: **invasive weeds**. As anyone who has watched fire rip through cheatgrass into sagebrush and then oily pinyon pines knows, weeds change the very character of the landscape and deeply influence fire behavior. The actions contemplated in the project have the potential to both improve, as well as exacerbate, the scourge of invasive weeds on the Inyo National Forest. Going forward, this project should include an analysis of proposed actions on the current and future population of invasive weeds. While proposed activities, such as broadcast burning may, for a time, knock down a given weed population, actions such as fire line construction and especially mowing have the potential to cause weed explosions in areas of little to no current weed infestation.

Secondly, but related to weeds, the document is silent on **livestock grazing**. In and of itself, without the aid of fire, livestock grazing presents a known and very capable weed vector. When allowed to graze immediately after, and in some cases during the course of, prescribed fire treatment activities, livestock's potential to introduce invasive weeds explodes. Please include a proposal to rest from grazing any and all treatment areas for a period of at least 5 years immediately following any fire or vegetation treatment. Following any treatment, soil and associated biota need time to rest and restore their functionality. Immediate trampling by livestock – even just ‘trailing through’ –not only interrupts this process but may completely undo any hope to achieve the ecological gains sought by the original treatment. I fear the negative impact of allowing active grazing on recently burned land will become apparent soon in the area of the Springs Fire with new populations of weeds sprouting up where sheep were allowed to trail and graze during and immediately after this Summer's burning.

The document is also silent on the potential integration of what used to be termed “**fire use**.” Basically, I understood fire use to be the thoughtful leveraging of natural-ignition fires to opportunistically achieve articulated resource goals. The Springs Fire is the most immediate example of this opportunity bravely taken. To fully enable putting fire on as many acres as possible this document should include analysis and authorization for fire use as part of its current programmatic approach to prescribed fire.

Additionally, the document fails to address or articulate measures for project design and implementation to **protect existing wildlife populations and habitat**. For example, there is no discussion of limited operating periods (LOPs) to protect nesting birds. LOPs – variable to elevation and habitat – should be articulated and discussed as a required project component.

Also, while the document focuses on the potential removal of snags for future safety, it is silent on the ecological importance snags play in the Forest. Future iterations of this document and specific project planning and implementation must recognize the importance of retaining existing snags for their myriad ecological benefits. Further, project components to protect large down wood and existing large stumps in project areas should be articulated. Components such as LOPs and snag/down woody debris protection measures should not be seen as impediments to this project but rather pathways to truly achieve the project goals of forest habitat restoration. After all, a forest is more than just its trees.

Given the millennia of intimate contact with this place as a living landscape, it seems respectful and prudent to ensure deliberate outreach to the local tribes and tribal members across the Eastern Sierra. I hope a method for **incorporating traditional ecological knowledge** in site-specific project design will be included in future iterations of this project.

Finally, the document is silent on potential treatments for one of the Inyo's most fire-threatened forest habitats: **broadleaf-conifer riparian forests**. Along Lee Vining Creek – from the Ranger Station upstream to Poole Plant – locally-limited but ecologically critical black cottonwoods and aspen are being shaded out of existence by explosive white fir (and to some extent lodgepole pine) growth. Without treatment to remove encroaching conifers (or, heaven forbid a stand-replacing fire along this creek), we stand to lose this unique forest type from the middle elevations of the Inyo. I would offer that the document expand its discussion of aspen to include riparian broadleaf forests (black cottonwood, alder and water birch) for analysis and treatment. Within these riparian corridors, protection of targets such as black cottonwood or

alder may best be achieved not through fire but thoughtful application of hand felling of encroaching white fir and lodgepole. An example of this was recently implemented somewhat at Aspen Campground in Lee Vining Canyon.

**The following comments refer to specific sections of the document:**

#### **PURPOSE AND NEED section**

As crafted, the purpose and need places undue burden for the justification to use fire on “environmental and land designations.” **The real reason fire represents the best tool to achieve this document’s purpose and need is that fire is the very tool nature has been using for millions of years to sustain forest health.** It is sadly true that there is currently no viable market for potential forest products resulting from this project owing to the lack of creative entrepreneurial force here in the Eastern Sierra. I, personally, blame global economics and people’s own personal desire to value cheapness over other product attributes, but this is another topic. Perhaps the stark reality that nearly every acre of forest must have fire returned to it – deliberately or not – over the next few years will engender some entrepreneurial miracle. We can always hope.

The discussion concluding the Purpose and Need section appears to unnecessarily attempt to scapegoat Wilderness and other designations for a perceived lack of mechanized treatment potential. These designations don’t outright say, “No!” A deeper reading of both the spirit and letter of these designations reveals they actually simply ask, “Why and what tools are necessary.” These designations require a deeper dive analysis-wise for good reason.

Mechanized treatment all too often represents a heavy-handed blitzkrieg approach to management which leaves the land in worse shape than it may have been before. Too often mechanized treatments are akin to using a nuclear-powered screwdriver to hammer in a finish nail; just use a simple hammer. The final document should revisit and remove or re-word this language framing designations as limiting. The document is correct: “fire is the most efficient method to restore fire adapted ecosystems on the Inyo National Forest at the landscape level.” Leave it at that.

#### **PROPOSED ACTION section**

In the second paragraph, the document states proposed actions are limited to areas outside of designated Wilderness. Does this document also cover actions proposed for designated Research Natural Areas? There are at least two in the project area: Indiana Summit RNA (Jeffrey Pine) and Sentinel Meadow RNA (Limber Pine). Also, does this document propose actions within the Mono Basin National Forest Scenic Area and designated Wild & Scenic River corridors? I’m not opposed to actions in any of these designations per se, just asking for clarification. In fact, the Upper Owens River Wild & Scenic River Corridor – namely along Deadman Creek upstream from the Crestview Fire Station – has benefited greatly from recent burning above the south creek bank.

When preparing design features and an implementation plan during site-specific project analysis, as discussed in the third paragraph, it is critical that this plan include a section on **restoration and monitoring** after burning is complete. Actions for restoration of handlines and

any roads, parking areas, and other disturbance into unroaded portions of the project area must be called out and programmed for implementation in the project planning phase. Additionally, site-specific planning should identify existing weed populations and identify post-project monitoring and treatment measures (including rest from grazing) to ensure the proposed actions do not exacerbate weed infestation.

### **Prescribed Fire section**

The importance placed in this section on “flexibility for implementation” is thoughtful. Please keep this notion in mind as this project moves forward to ensure the resulting document authorizes creative and nimble approaches to achieving the desired goal of fire on the land. To this end, this section should be updated to include a discussion of the opportunities presented by a **robust fire use policy** in project implementation.

Throughout this section, this **project’s nexus with the public fuelwood** program should be highlighted. Projects, such as the one this summer south of Bald Mountain Road (1S05) where hand-felled Jeffrey pine was made available to the public, demonstrate efficient achievement of multiple forest objects at once. Wherever possible, this project should include a public fuelwood component while articulating a post-project plan for restoration of fuelwood gathering impacts (e.g. route proliferation).

As discussed above in the overall comments section, this section should be updated to include discussion of **required rest from grazing during and after project implementation**, as well as measures to reduce weed problems associated with project actions.

This section may also be the place to include a discussion of how to protect a unique facet of the forest that is often overlooked. Across what many people see as monospecific forest there are often pockets or individuals of different conifer species living far from their brethren well outside their expected range. These **outlier conifers** represent the ongoing process of landscape level dispersal. For example, an arc of whitebark pines – individuals and a few clumps separated by a ¼ to a few miles from one another – extends from the area of White Wing in the Owens River Headwaters Wilderness to Deadman Summit on Highway 395 into the Jeffrey pine forest east to a nearly 200 year old individual at the junction of the Pilot Springs road to 1S04 and still east to Sentinel Meadow and beyond.

These individual whitebark islands represent dispersal in action; this is how trees move and how trees adapt, spatially, to our changing world. When implementing project work, fire planners, botany staff and crews should be made aware of these outlier conifers that seemingly “do not belong,” and efforts to protect them should be included in site-specific project planning. In addition to whitebark pine, other isolated species deserving of protection which occur in the seemingly monotonous Jeffrey pine forest east of Highway 395 include: Sierra juniper, red fir, western white pine, mountain hemlock and limber pine.

### **Hand Thinning & Limbing Trees to Raise Canopy Base Height section**

This section should be amended to remove the statement that hand thinning will not be used in aspen stands. This seems unnecessarily limiting, as thinning may be required to protect critical habitat trees or trees with cultural value containing arboreglyphs. Additionally, removal of encroaching white fir and lodgepole in broadleaf riparian forests may be our only hope to save

our rapidly dwindling broadleaf component along streams like Lee Vining Creek, Laurel Creek, Sherwin Creek and upper Deadman Creek. The proposed removal of small trees reaching up into old growth is welcome and needed.

### **Targeted Mowing section**

This section should identify that mowing is the least effective and desirable of all actions proposed. For our plant communities, mowing often creates little more than weed patches that require more and more subsequent treatment. This is especially true when deployed along Forest roads – while it may reduce shrub height in the very short term, the subsequent long-term damage from invasive weeds may outweigh the short-term benefits of mowing.

### **Prescribed Fire Control Line Construction section**

I thank the Forest for including a line that firelines “will be rehabilitated in locations where it is necessary.” It is necessary at any and all junctions with existing roads or trails. Unrepaired firelines often become proliferated routes for wheeled recreational travel. This section’s call for restoration should be expanded beyond just firelines to include parking areas and other incursions where natural vegetation and soils are disturbed by project work. The Forest deserves thanks for their improved implementation of fireline restoration as evidenced in the Springs Fire. I noticed a number of restored firelines and parking areas out there this Fall. Thanks.

Table 1 seems to reflect a troubling trend across the Forest in recent years: very aggressive removal of large, old growth trees and snags anywhere within sight of a road. This somewhat arbitrary removal of locally-limited and ecologically-important trees and snags is evident at the end of the Deadman Creek Road and Glass Creek Road, as well as along Bald Mountain Road where 300+ year old Jeffrey and lodgepole have been cut that showed no outward nor inward sign of threat to the passing public or Forest workforce. There needs to be some thoughtful check placed on the current indiscriminate removal of habitat trees.

### **Appendix A section – Jeffrey and Mixed Conifer section**

This discussion leaves out two conifers that occur regularly in our mixed conifer. On the eastern escarpment, western white pine is a common associate of Jeffrey pine and deserves to be treated with deference given its locally limited distribution. Additionally, in the Glass Mountains, especially the eastern portion above Sawmill Meadow and up to the ridges, limber pine is a frequent associate of Jeffrey. These two white pines – limber and western white – connote subtle but important variations in habitat characteristics and should be noted in site-specific planning. This section should also include note of outlier conifers and their role in species dispersal and adaption, as discussed above.

### **Appendix A section – Lodgepole and Red Fir section**

Given my time on the Forest, especially in the Glass Mountains, lodgepole and red fir have very little to do with each other outside of the Owens River Headwaters and Mammoth Lakes Basin areas. This section on lodgepole should perhaps be re-written to better describe lodgepole forest on the Inyo. In the Glass Mountains, lodgepole – prior to fire exclusion – seemed to be widely dispersed with many trees achieving great age due to their relative isolation from one another

and habit of occupying poor, dry pumice soils. Today, much lodgepole in the Glass creates even aged stands that – as the Springs Fire demonstrated – light up like a torch. Special measures need to be articulated and implemented to protect old growth lodgepole during this project. So many landmark lodgepoles died in the Springs Fire – not just from crown fire – as evidenced in the forests south of 1S06 – but also from simple exposure to heat. Their thin bark offers no protection from heat, and as a result we’ve lost a lot of beautiful old trees out there. Measures to protect and retain old growth lodgepole and lodgepole snags should be developed and implemented as part of this project.

### **Aspen section**

Particular measures to protect arborglyphs within stands to be treated should be articulated in this section. Additionally, the section should differentiate between snowbank aspen and riparian aspen. Each responds very differently to fire; especially now in our time of climate change. Look at the stands east of Sagehen Summit – the resultant stress from reduced snowpack coupled with ongoing grazing is evident. Honestly, I am unsure if some of the more xeric snowbank groves could regenerate after an intense fire.

Again, I’d like to offer my thanks and deep appreciation to you, the ID Team staff, Forest leadership and the field staff of the Inyo for trying to figure out a way to break through all the haze and get more fire on more acres of our public forest lands. Our forests work better when we enable fire to work its magic. I look forward to discussing this project more in the field in the coming months and years.

Respectfully,

Paul McFarland  
Lee Vining, California