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**Re: Santa Fe Conservation Alternative
Santa Fe Mountains Landscape Resiliency Project (SFMLRP)**

Dear Supervisor James Melonas,

The members of Northern New Mexico Sierra Club, Defenders of Wildlife and WildEarth Guardians appreciate the opportunity to submit a community based "Conservation Alternative" to the Santa Fe Mountains Landscape Resiliency Project (SFMLRP). Our non-profit conservation organizations are deeply involved in promoting best forestry and watershed management practices and preserving our unique New Mexico wildlife species and habitats for generations to come.

According to the Project Statement of Purpose and Need:

The purpose of the Santa Fe Mountains Landscape Resiliency Project is to increase the resilience of a priority landscape to future disturbances such as high-severity wildfire, drought, and insect and disease outbreaks. Resilience is the "ability of a social or ecological system to absorb disturbance while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change" (Forest Service Manual 2020.5).

The Statement outlines how Santa Fe National Forest will achieve this change in forest status:

To increase the resilience of the forests, watersheds, and communities of the Fireshed, there is a need to:

- Move forests and woodlands (including ponderosa pine, dry mixed conifer, aspen, and piñon-juniper) in the Project Area towards their characteristic species composition, structure and spatial patterns in order to improve ecological function;
- Reduce the risk for high-severity wildfire, create safe, defensible zones for firefighters in areas of continuous fuels and near valued resources that are at risk, and avoid negative post-fire impacts;

- Improve the diversity and quality of habitat for wildlife; and
- Improve soil and watershed conditions.

The SFMLRP has been presented to the public through public forums, county commission hearings, and face-to-face meetings with many conservation organizations and concerned landowners who live in Santa Fe County. The residents who have spoken in opposition to the project represent thousands of our organizations' local members, deeply concerned about the SFMLRP and its potential impact on Santa Fe's forest, watershed, wildlife habitat, recreational values, landmark appearance, and wildfire risk.

The future ability of the forest to "adapt to stress and change" is at the heart of this project and has raised ongoing questions how treatments work, for how long, at what cost, and with what success in reducing wildfire damage.

As several members of the public have asked: "If we're spending millions to cut and burn trees in the forest when many are likely to die from insects or wildfire anyway (i.e. the natural process), why not spend those funds on protecting communities, public preparedness training, and early fire detection?"

1. Treated/untreated acres respond differently but are short-lived and over time are "nearly identical"

There is evidence that high intensity wildland fire impacts can be reduced if they burn over treated areas, and that some can contribute to achieving short-term resiliency goals. Other evidence suggests that fuel treatments are much more effective in reducing low and moderate intensity fire, and are generally not that effective for very high intensity fire, for example Las Conchas Fire. Low to moderate and even some high intensity fire is considered to be beneficial to the fire-adapted forest landscape, so that makes the efficacy of fuel treatments questionable in many cases. Treatments are short-lived and require repeated thins and prescribed burns to maintain their function.

In the study: "Evaluating spatiotemporal tradeoffs under alternative fuel management and suppression policies: measuring returns on investment." (USFS, Thompson, Riley, Loeffler and Hass. 2016) Modeling results confirmed that fire-fuel treatment encounters are rare, such that median fire suppression cost savings is zero. Sierra National Forest was used as study site to reflect a microcosm of many of the challenges surrounding contemporary fire and fuels management in the western U.S. https://www.firescience.gov/projects/13-1-03-12/project/13-1-03-12_final_report.pdf

There is also evidence that post-fire recovery is initially similar in treated and untreated areas and that treatment benefits are nullified in the long term.

The 2002 Rodeo–Chediski fire, one of the largest wildfire in south-western USA history, burned over treated stands and adjacent untreated stands in the Apache–Sitgreaves National Forest, setting the stage for a natural experiment testing the effectiveness of fuel reduction treatments under conditions of extraordinary fire severity. In seven pairs of treated– untreated study sites measured 2 years after the fire, thinning was strongly associated with reduced burn severity. **Initial post-fire recovery was relatively similar between treated and untreated areas.** Only fuel loadings and Manzanita density were significantly different. Fuel loading in terms of fine and coarse woody debris, as well as forest floor weight, were substantially greater in treated areas

Treated areas initially had more trees, but as untreated areas had more regeneration, they quickly became denser; this difference slowly declined over the course of the simulation. All treatment and regeneration combinations led to some self- thinning, but Regen-2 (scheduling measured regeneration in 2004 and adjusted regeneration in 2024) in untreated areas led to an especially high pulse of density and a correspondingly steep decline. After 100 years, treated and untreated areas were nearly identical.¹

Given the similar long-term effects of fire over treated and untreated areas, and the probability that any fuel treatment will be encountered by a fire is very low, the potential benefits do not seem to justify the ecological damage from the impacts of *widespread* fuel treatments. Removing the forest understory mechanically and then burning regrowth of the understory with periodic prescribed burns profoundly damages many of the ecological cycles of the forest.

2. What steps work effectively to reduce Wildland Fire damage?

USFS Deputy Chief Victoria Christiansen testimony to the Senate Energy & Natural Resources Committee (2017) read: “Wildland Fire Management programs at U.S. Forest Service and the Department of the Interior seek to achieve a cost-efficient and a technically effective fire management plan that meets resource and safety objectives. The guiding principles and priorities, as outlined in the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy), are to “safely and effectively respond to wildfires, promote fire-adapted communities, and create fire-resilient landscapes through direct program activities and strong Federal, State, tribal and local collaboration. Firefighter and public safety are the primary considerations for all operations.”

Wildfire prevention is a critical element to working collaboratively across land ownership boundaries. The agency uses cooperative fire agreements to further

¹ Barbara A. Strom and Peter Z. Fulé, “Pre-wildfire fuel treatments affect long-term ponderosa pine forest dynamics”. *International Journal of Wildland Fire*, 2007, **16**, 128–138

the goals and implementation of the Cohesive Strategy. Nationally, nearly 9 out of 10 wildfires are caused by humans, including some of the most costly wildfires. *(Note: In northern NM, Cerro Grande Fire was caused by a prescribed burn, Las Conchas Fire was caused by a downed transmission line, and Doghead Fire was caused by a spark from a USFS masticator).* If we prevent unwanted, human-caused fires from igniting, we can proactively use our resources to create resilient landscapes, improve our response to the other wildfires that need attention, and engage communities to be prepared for and live with wildfire.

The goal of wildfire prevention is to stop unwanted human-caused wildfires before they start and to reduce the negative effects of wildfires. Prevention occurs in three main areas:

- **Education** aimed at changing behavior through awareness and knowledge.
- **Engineering** designed to shield an ignition source or prevent wildfire from impacting something we value. Examples include clearing debris from around a house, installing spark arrestors on equipment, and utilizing well-designed campfire pits. (It can also be used to protect valuable infrastructure in flood-prone areas.)
- **Enforcement** efforts to gain compliance with fire regulations and laws (primarily a State and local role). Elements of enforcement include detection to keep fires small, patrols to increase visibility and public awareness of fire danger, and public compliance with wildfire regulations.

Wildfire prevention education activities can reduce the number of human-caused wildfires and thus fire-related costs. A 2009 study on wildfire prevention education programs in the state of Florida found that the benefit to cost ratio could be as much as **35 to 1**. That is, every additional dollar spent would have reduced wildfire related losses (e.g., home and timber losses, etc.) and suppression costs by 35 dollars.²

A good example of fire prevention “enforcement” was the administrative decision to close Santa Fe National Forest, during High Fire Danger weather in 2018, to remove fire hazards from outdoor activities and camping, and to increase public awareness of wildfire risk.

3. Wildfire education, prevention of human source ignition, and enforcement are top priorities for Santa Fe County residents

² Testimony of Victoria C. Christiansen, Deputy Chief, State & Private Forestry, USDA, Forest Service. US Senate Energy & Natural Resources Committee hearing. August 3, 2017.

Housing developments and new construction in the wildland-urban interface are issues residents are willing to discuss but not prohibit. The promotion of Firewise communities has gained popularity and with strong political leadership could become the norm with tighter housing ordinances in both city and county. Treated right-of-ways for neighborhood access roads, underground utility lines, fire retardant building and roofing materials, water tanks and surface ponds for fire fighting, are all desired conditions for residents living near the forest.

Wildfire preparedness clinics are well attended in Santa Fe as are workshops that demonstrate landowner treatments and clean ups. Programs that show fire behavior and wildfire simulations are equally popular. Funding for such ongoing programs by SFNF and City & County Fire Departments should be ongoing.

Mapping of potential Firewise Communities has already been done as part of the proposed project. Focal areas for Firewise education, fire prevention and enforcement, include Chupadero inholdings, Summit Estates (Hyde Park Road), Canyon Atalaya, La Barbaria, Canada de los Alamos, Glorieta and La Cueva. Within Santa Fe National Forest, Hyde Park Road to Ski Santa Fe has also been identified as a high risk, high value corridor.

Controlling low to moderate intensity wildfires away from focal areas, but letting them burn through forest areas with heavy fuel loads is generally well accepted by the public.

4. Santa Fe Conservation Alternative (SFCA): Recommendations

The “desired conditions” of the SFCA are as follows:

- 1) Require a site specific plan for each project within the SFMLRP that strategically targets limited areas to treat, creates buffered boundary areas to protect property and access ROWs, and safety zones to protect lives;
- 2) Require that riparian areas and critical wildlife habitat receive additional restoration monitoring and mitigation procedures developed in collaboration with NM Department of Game and Fish; and,
- 3) Encourage public input regarding preservation of places, landscapes, cultural sites and landmarks of local significance.

Thinning (Note: Projections for post treatment density are: 165.05 TPA across treatment stands – 4.0”+ DBH. 29.3% of stands are >81 TPA and 90.3% of stands have >52% trees <16” DBH.)

- Limited hand thinning (up to 9”) only in dry pine and mixed conifer outside of IRAs.
- Stumps cut down to the ground
- No thinning adjacent to the WUI for the purpose of protection of structures or communities except within 150 feet of structures, and for fire fighter safety zones.

- Maximum trees removed in most thinned areas to 80 BA
- Leave tree groupings (50% minimum) and maintain a shrub understory. Utilize a wildlife habitat based determination of tree and vegetation retention
- Identify riparian area concerns and plan to protect from erosion or sedimentation

Slash management

- Pile burning of activity fuels
- Reevaluate slash management timing and methods to avoid potential bark beetle outbreaks, and sterilization of soil under slash piles. No slash over 3" left on the ground during the dry season

Prescribed burning

- Utilize managed wildland fire and pile burning wherever possible. Utilize minimal broadcast prescribed burns only in areas that are not assessable for pile burns.

IRAs

- No thinning in IRAs
- Identify Roadless Area concerns and develop policy to restore

Monitoring (Essential method of reaching desired outcomes of healthy forest habitat and

protection of public health)

- Set aside test plots for monitoring purposes
- Soil sampling - plot number and spacing to be determined
- Baseline species evaluation (i.e. population capacity and presence/absence)
- Improved air quality standards and monitoring to protect sensitive (human) population

Reclamation and restoration

- Reclamation of any USFS roads deemed unessential in Travel Management Plan
- Hand build structures (ex. Zuni bowls) in arroyos to slow flood waters
- Planting native, stream side vegetation where appropriate to slow floodwaters
- Reintroduction of beaver where appropriate

WUI and community forests

- Develop program to support fire-proofing of structures and surrounding 100 feet, at least through increased outreach and education (County should make this a homeowner responsibility)
- If possible, support development of an alternative egress for communities with a single egress
- Leave most areas accessible to the public for recreation
- Take into account local opinion to preserve areas that are special to communities, like Cougar Canyon
- Increase law enforcement to protect against unsafe fire behavior by forest visitors

Scenic quality

—Maintain the scenic quality of treated areas. Develop a standard for acceptable scenic quality with local input

All of Santa Fe and the surrounding inhabitants depend on the thousands of acres of forest that give us clean air and water, seasonal runoff and acequias, historically thriving pueblos and small rural communities, native fish and wildlife, several converging ecoregions with differing landscapes, and inspiring natural beauty.

We are all deeply invested in the success of this important project.

Respectfully,



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