

From: [Valerie Gremillion, Ph.D.](#)
To: [FS-objections-southwestern-regional-office](#)
Subject: Fwd: OBJECTIONS to the Santa Fe Mountains Landscape Resiliency Project #55088, Santa Fe National Forest
Date: Friday, May 13, 2022 9:09:51 AM
Attachments: [REDACTED]

Please accept this now. It has some things you should really see. including suggestions for gigantic modern projects to fund the Forest Service.

----- Forwarded message -----

From: Valerie Gremillion, Ph.D. [REDACTED]
Date: Thu, May 12, 2022 at 11:55 PM
Subject: OBJECTIONS to the Santa Fe Mountains Landscape Resiliency Project #55088, Santa Fe National Forest
To: <objections-southwestern-regional-office@usda.gov>

Debbie Kress
Forest Supervisor of the Santa Fe National Forest
objections-southwestern-regional-office@usda.gov
Title of Project: Santa Fe Mountains Landscape Resiliency Project #55088, Santa Fe National Forest
Supervisor Kress:

Please find my complete objections to the FONSI and Draft Decision on the Santa Fe Mountains Landscape Resiliency Project.

An overall summary: the utter lack of responsibility to your primary responsibility of forest management (as opposed to the destruction the proposed treatments have been shown to engender) is obvious by the Hermit's Peak fire and almost certainly the Calf Canyon fire being set amidst fire weather conditions by your "experienced" team.

Through this fire you have demonstrated a complete inability to change with either common sense or science, by absolutely refusing to address climate change and its necessary reshaping of your treatments on the Santa Fe National Forest.

I can only assume that adherence to Forest Service new mythos about fire being the "solution" to wildfire in the southwest, is about maintaining money flows now based on prescribed burning. I assure you, this will simply backfire here for the Forest Service, as even my own correspondence with you will show you were warned by many, quite specifically, that the risks were too great given accelerating climate instability. Given that we are in increasingly grave danger of fire, I ask you to reconsider every part of this plan for the reasons I lay down below, as well as your own commonsense.

Instead, the SFNF could choose to *lead* Forest Service changing attitudes to determine ground-breaking new approaches needed by the entire world. So far the Forest Service has not embraced any of the sciences of fields which could help it reshape to a new climate dynamics – including systems science, climatology, regenerative agriculture – even though experts are available to help solve these problems, to re to choose to work with Santa Fe city and county, as well as other groups and of course scientific experts, on

I note that while the last objection process at which I spoke required 3 days of my time, despite assurances you would respond to my objections at that time, I have had zero response from the Forest Service to my objections regarding

- Forest Service ignorance of the science and impacts of climate change,
- riskiness of all negative proposed fuel treatments on the Santa Fe, and
- what appears to be the planned extinction of accidental "loss of regenerative potential" of our ponderosa and other species critical to our forest.

I hope this is sufficient reference to my earlier letter which gives me standing to further object to this incredibly dangerous, ill-thought-out, Santa Fe Mountains Landscape Resiliency Plan. Because you should have named it the Remove-All-Resiliency-from-Santa-Fe-Mountains-Landscape-Plan, and my comments from 2019 have already been proven correct.

Current Objections to Forest Plan

The entire USFS program of thinning-and-burning to manage New Mexican forest for fire is now based on outdated science, and outdated beliefs, and assumptions. The specific science, I address below. Beliefs and assumptions of Forest Service culture are now ingrained about fire, and promote a 100% switch from “suppress all fire” to “enough burning will stop fire but somehow not burn the actual forest” views. This extreme switch and the erroneous belief in ‘missing fire’ or “the forest **needs** fire” (only true of a handful of species, none of them in New Mexico) is attached to huge amounts of money that will not, however, put out any fire.

Forest Service strategy appears to be based on feeding its access to prescribed burn and timber money. This approach, devoid of climate change or any big picture understanding at all, currently dominates active choices of Forest Service actions and implementations. Notably it fuels only negative treatments to prevent fire, rather than rebuilding forest soil, stability, ecological integrity and resilience through positive treatments like rebuilding damaged hydrogeography.

Proposed treatments for the SMLRP are based on either outdated techniques like fire return interval (proven wrong estimates mean we are putting non-ecological fire rates on the forest,) a refusal to acknowledge and integrate new research (science contrary to FS views, climate science ecology, systems science), and a Luddite approach to the Forest that is based on a worldview from the early 1900s.

In that view, Man is opposed to Nature, FS is “taming” it and in controlling this antagonist we must prevail over it, even if that requires its destruction.

What else could have made the Forest Service start the Hermit’s Peak fire in a 25mph wind on a Red Flag day? Possibly the bureaucratic pressures of a FS who aims to ‘get the job done’ even when there are no good burn windows because the risk is far too great? Or is it when you have chosen an unrealistic solution that can literally only work the way the Forest Service assumes if you pre-burn half the Santa Fe National Forest in a checkerboard pattern, so that every “burn-partner” being paid by these burns believes ‘more fire is better’?

This would certainly fit why the Forest Service response to their starting *another* of the biggest fires in New Mexico, was to tell nearby residents that they would burn twice as much, because they are ‘behind’. But this is not school assignments you are behind on, but interference with large-scale ecological processes that are critical to the survival of residents, communities, wildlife, ecosystems, and even entire city and state economies. And your rational, scientific evaluation of billion-dollar risk is distorted by direct (through FS hierarchy) and indirect pressures to ‘get your bureaucratic task done’.

These ingrained attitudes, beliefs and a simplistic, rather than scientific approach to forestry management put our forests, our cities, our people and our economies into direct danger from your action. They eliminate many beneficial responses to climate change, and degrade our forest resources EXACTLY when we need them to counter climate change.

Current Forest Service approach leads to assumptions and actions that are destructive to the communities connected to the forest, to global carbon balance, to the economies of cities and states, to the health of humans and wildlife, and to the forest you are destroying by careless thinking and scaling up “the cheapest” solution to fire in the forest.

REMEDY: train your people in *ecology* and understanding of how forests and ecosystems actually work! Many have been trained only in extraction techniques and all negative forest treatment. A recent discussion with SFNF-related personnel revealed none even KNEW what a positive treatment was, nor what reason they would have. This results in the criminal negligence that we have seen from USFS, and is exacerbated by truly terrible risk models that do not even consider the ‘surround’ of a forest despite other SFNF fires that have impacted Los Alamos and LANL at over \$1 billion.

Further training should be by actual statisticians and other scientists who can explain real risk formulas that take the city of Santa Fe, the many communities along the WUI of the SFMLP whose 40,000 acres you plan to burn, our drought and water situation, into consideration sufficient to make real risk assessments possible. Rather than remove the tool of prescribed fire and thinning, I suggest you work out true risk minimization efforts, if any are possible when you've already burned one-third of this forest you're supposed to be stewarding. These efforts, however, must be based on real principles, not "burn most as its cheapest" desire to use a fast and easy tool.

Prescribed fire should be used in our drought-stressed forest ONLY as a last-resort, where geography makes no risk possible and where the science indisputably supports it *in our dry southwest forests*. My remedy is for USFS to stop a one-size-fits-all approach to fire, and cease using any fire data from regions with more rain, humidity, lakes and rivers than we have.

It is not acceptable to start fires that you literally cannot put out. One remedy is to cease starting them unless there is sufficient water to put them out. There is no such thing in New Mexico, and good hint that this is NOT the place to start fires, and you might rethink CA too.

I note that absolutely nothing happens if you do not cut and burn our forest. In fact the tremendous opportunity cost of cutting and burning means that *ceasing* to do this leaves you capacity for beneficial, positive treatments that actually do upgrade the ecological integrity and ecological health of the forest. While currently all eggs are in the basket of prescribed burning as a solution, given that the Santa Fe /SMLP is a clear case where burning is clearly FAR too risky, why not lead the way with creative, integrative solutions that aid our economy?

How about just not burning the entire forest and killing all of us in the WUI, then? I stress that this is the likely scenario if you implement any part of the SMLRP in the project area. Notably, if you had gone ahead and set the SMLRP fire on April 18th, by now it would have been pushed by extreme west winds across the entire forest, north and east, to take out most of the eastern SFNF.

Given that we, residents and local scientists, know this, inform you of it, and beg you to reconsider your insane plans to light a tinderbox of a forest on fire to save it from fire – it cannot be believed by anyone that you were unaware of the risk to Santa Fe and all areas of the project.

Remedy: draw up *positive* treatment plans in congruence with local expertise, scientific experts, and regenerative agriculture specialists who can help rebuild the SFNF from its current destructive fire experience.

The current USFS view denies the very real climate change that IS happening, and thus these negative treatments can be seen as a bizarre approach to fire suppression which neither mitigates nor treats fire.

It is also in denial of the true relationship between Man and Nature: Nature is not only helpful, and providing, but its healthy existence is critical for human survival. Specifically, the Santa Fe National Forest provides clean air, critical community water (the Hermit's Peak/Calf Canyon fire may have diminished future regional water *already* by 25% or more, costing tens of millions), and, acting as a climate attractor, moderates and mitigates climate change and temperature directly for this region.

Nothing the Forest Service can do is more important than *maintaining* the integrity and productivity of this forest. As climate change deepens, these ecological assets will grow ever more important, more valuable, and more irreplaceable. Should the city of Las Vegas NM and others sue the FS for destruction of its irreplaceable water supplies **into the future**, Forest Service liability on this one issue alone could be on the order of \$50-100million. Destruction of Santa Fe city or country water infrastructure and ecological assets would surely rival billions of dollars in real estate that could no longer be supported.

The remedy for this is to drop such risky treatments, support and even grow the forest with positive treatments that you are ignoring completely, like:

assisted species migration, seeding and sapling growing and planting, seed gathering, decommissioning of roads that bring fire and invasive species to the forest, innovative regenerative

forestry, and most important, rebuilding of the destroyed hydrogeography across the Santa Fe National Forest that the USFS is responsible for. Happy to help in any way regarding such a program, do contact me at [REDACTED]

Humans and the Forest are therefore in a mutualistic partnership, a relationship which means not only that we directly benefit from healthy forest, but loss of forest as a partner has the capacity to pull us down with it through loss of ecological support – such as when a Forest Service-set mega-fire uses up all the water in the region. Given this, exactly how the Forest Service responds to *actual climate change* may determine migration patterns of the USA over the next 20 years; watch out that the Forest Service is not a target for class action lawsuits that can track your rejection of climate change science in our comments, and objections. I suggest the Forest Service begin to *work with* forest and nearby communities to reduce the tremendous distrust you have engendered by ignoring both the science and the concern of experts, officials, and residents.

OBJECTION: Thinning of SFNF .

If only you would actually THIN. 90% removal of biomass and 90% of removal of all trees on an acre is in now way thinning, it is decimation of an ecology which has evolved during this period of climate change, and is certainly far more adapted to its progress than anything USFS can replace it with.

REMEDY: community training programs in silviculture in our Hispanic area where traditional use is common. These are the people, along with youth, could actually tend the forest starting from the WUI where they are located, decreasing fire risk as they go. Such a program would return historic communities here to their position as forest protectors, this time with benefit of silviculture knowledge, climate change understanding, and an enhanced ability to induce community around the necessary rebuilding of forest resources.

Destruction, like cutting things down or setting them on fire, you can do with a few people. Repairing the massive SFNF will require local community assistance and support. Please try to regain our trust so we can do this together!

Prescribed Burns

Fire rate of return is now almost completely discredited, and these estimates are no longer considered the best science. Fire rotation is now almost certainly correct, and makes Forest Service predictions and plans based on burning 40,000 acres around Santa Fe repeatedly to mitigate wildfire risk, almost certainly wrong.

Moreover, none of this has anything to do with the “health of the forest”. I quote from SMLRP, p. 7: “The primary purpose is to reduce fuel continuity and modifying fuel arrangement”.

Yet when much of the 90% biomass of trees and understory that is cut in a “thinning” are left in slash piles – as they customarily have been across the SFNF, including when a prescribed burn started the Cerro Grande fire – then fire risk has been *increased* through both large-scale disruption of the forest, and by actually increasing the amount of static, drying material distributed by the ton on the forest floor.

The Hermit’s Peak Fire, contrary to your spokesperson saying so, does NOT demonstrate why “the forest needs more fire”. Rather, it appears that the Forest Service has neither the knowledge, expertise, nor scientific currency to appropriately derive or understand the risk involved in their use of fire on the forest. Your refusal to interject any real climate thinking, or to explain why their plans have not changed given accelerating climate change, illustrates further your resistance to newer science and actual solutions that do not destroy our resources, our water, our health and our economy.

You can NO LONGER say about a prescribed burn, “Sure but it’s better than the bigger wildfire that would happen”.

YOU, the FS, are bringing us all the risk and wildfire we need. YOU are bringing us catastrophic fire because you do not realize you can no longer play with matches – not when we are all standing on

an inch of gasoline.

REMEDY: first determine real fire risk, not just to the trees of your forest that you can sell, but to communities, water resources, the city and county of Santa Fe, the Santa Fe economy (which you are trashing by your constant smoke and now the gigantic fire you set) and ecological resources of the forest whose value will only spiral upward.

Next, reassess your statistics with the Hermits Peak and Overlook fires. Not only is it now 3 of 100 fires, even according to your conservative estimates, but prescribed burning has caused two of our most expensive fires.

REMEDY: switch to a complex systems approach that does not ignore most of the impacts of the fire. Use meteorological experts, and listen to them: we have fewer and fewer burn windows, but the FS plans to “burn twice as much”? That impossibility translated directly into MORE wildfire caused by the Forest Service. Rethink your entire approach in terms of **positive** treatments.

OBJECTION: Potential regeneration failure of species:

Ponderosa, pinon, and juniper as well as other mixed conifer in the SFNF face a potential regeneration failure of species due to direct Forest Service actions.

A case can be made for this occurring for each of these species, but I will use *Ponderosa pinus* as an example of how current Forest Service action on the SFNF will directly eliminate ponderosa through its thinning and burning actions, while inducing regeneration failure in every place it does so due to ignorance of accelerating climate change impacts on these forests.

The US Forest Service has ignored new science reflecting current conditions caused by climate change. The ‘thin-and-burn’ approach you are using to ‘reduce fire hazard’ on the SFNF will kill the vast majority of all ponderosa on the treatment area, including seedlings and large trees, in just 16 years of Forest Service approach to the Santa Fe watershed. Notably, the latest science finds that -100% of ponderosa seedlings are killed by even low intensity prescribed fire – in any fire ((Partilli-Felton, 2019)

-“thinning” will remove 90% of all tree biomass, including all trees above 3 feet that are not larger than 16” abreast. (with objectives as stated in Santa Fe Mountains Landscape Resiliency Project)
-all trees are at risk in any fire – due to multiple stressors and other impacts (noted in Bradley et al 2016, the largest survey of tree mortality including the Southwest), between 12% and 25% of all remaining trees will die in each successive fire, even mature and ‘resistant’ trees, even in lowest intensity prescribed fire. One of the authors, told me that “the Forest Service hasn’t even done the simple math – repeated burnings, especially at the overly-frequent “every 3 years” planned by the Forest Service, could be induce far more mortality under climate-change conditions.”

REMEDY: Stop thinning and burning! They no longer work to control a system that does not need control, but supports.

I do realize that to some extent, the Forest Service is bound to justifiable financial streams. The remedy here is to reposition the Forest Service at the forefront of the next wave of technology and progress which can be applied to the forest. Positive treatments on the forest can be made in the rapidly advancing field of regenerative forestry – and deep-seated forest problems like erosion and damaged hydrogeography can be addressed through this, and at the same time. Technological innovations like forest sensors, tracking, satellite and weather packages, and other assists to rapid fire suppression are in the works. I suggest you contact me, I’m putting together a package for industry and government that will draw on partners at Sandia and LANL for new technological approaches to forest management, risk assessment and handling, and tech innovations to fight wildfire and support our valuable forests. Such projects could rejuvenate both the forest AND the Forest Service, while fulfilling FS stewardship of the forest.

Moreover, since you have been completely proven wrong in your rejection of climate science, why not embrace it and jump on it? What money there is in the future will be shifting to real protection of our ecological resources as they are increasingly decimated by fire and extreme weather events, real tracking of ecology and climate to mitigate climate impacts, and community-building that supports 21st century approaches to the forest. New toys, new tech, new kinds of science, and new insights into forest ecology as well as climate impacts, will change our approach to fire.

The Forest Service is no longer in the same system it studied to produce this plan – the old climate system is done, we are careening rapidly into ecological disaster, and the SFNF should study the impacts of climate change, and the reconfiguration occurring in our forest, immediately.

The Santa Fe National Forest as a climate attractor

Another piece of science the Forest Service has missed: the regenerative, not degenerative state of the forest is absolutely critical to the health and well-being of not just forest wildlife but to the health, economy, and well-being of nearby cities, especially Santa Fe, Los Alamos, and Las Vegas.

The SFNF acts as a *climate attractor* in two senses:

1. It anchors current weather and temperature. Forest induces rain – all reduction in forest size and scale, lessens rain likelihood through decreased forest humidity and evapotranspiration.

The SFNF produces rain for Santa Fe and other local communities. As rain decreases due to increased temperature, further disruption of forest integrity by last-century's thinning-and-burning approach by the Forest Service will only result in increasing degradation through negative feedback on rainfall – resulting in a more-rapid destruction of regional water supplies. The forest directly produces regional cooling for nearby cities as well as the canopy, lowering our regional temperature by 8 degrees Fahrenheit. Can wildlife, people, communities, economies handle the vast increase in temperature that results if you further burn the Santa Fe National Forest?

Almost certainly no, because rapid temperature increase will further stress the forest, at a rate which will mass mortality.

REMEDY: Therefore: cease actions that destroy forest cover, including thinning, burning, and cutting.

Current research suggests the forest most resistant to wildfire of any kind is a *healthy* forest with the fewest possible human impacts like thinning, burning, macerators, roads, or any treatments that destroy, rather than repair, ecological integrity (Bradley et al, Ecosphere 2016, op cit)

2. Climatology nonlinear dynamics research is indicating that the *location* of ecologies like forests and wetlands may be important factors in larger scale climate-induced weather changes. Ecosystems of the Rocky Mountains are factors in how winds and weather fronts move across the continent, influencing weather patterns in those regions, especially maintaining precipitation and breaking up extreme weather patterns.

Due to its geographical placement, height and dense forest, the SFNF at the tip of the Rocky Mountains acts to moderate both extreme temperature and extreme weather to our region and our cities. Removing this dense forest is likely to have detrimental effects on regional rain, snowpack and intense wind events as well as overall negative climatological effects.

While the SMLRP may only cause regeneration failure across its 50,000 acres, the Forest Service is degrading the ecological integrity of the entire forest by their ongoing unsafe practices. I note that the 'terrible' shape of the forest often noted is actually due to Forest Service actions. Your prescribed burning over the past 10-20 years as well as roads and machinery use, leave

- a damaged hydrogeography (making growth of any trees less likely),
- a more stressed forest prone to bark beetle infestation as well as increased drought mortality
- erosion prone mountains
- invasive-species pathways and increased likelihood
- damaged habitat
- destruction by fire of 300,000 + acres of the Santa Fe National forest.

Through its degeneration of forest integrity by logging, 90%-removal "thinning", removal of understory and young trees by prescribed fire across 1000-acre swaths, excessive roads and use of destructive machinery – the Forest Service directly hinders the resiliency of the Forest, adds stressors that tip trees into mortality, destroys valuable ecological resources, endangers the city and country of Santa Fe, and is otherwise an active, negative force on the region.

In short, the Forest appears to be undertaking many many actions that destroy the resiliency of the forest, while NOT undertaking many, if any, actions that enhance the ability of our forest, the SFNF,

to survive through the next 30 years of climate change.

OBJECTION

On the basis of known science, the state of the forest (thinning and burning have given us the stressed forest we have), apparent inability of the FS to acquire new science, and current refusal by the Forest Service to obey even their own prescriptions or meteorological advice in the

I demand that you cease to apply a 20-year-old plan to a forest that is rapidly evolving. Your current approach ignores the amalgamation of multiple stressors that will destroy the forest itself should you continue these negative treatments. I request that the Forest Service completely rethink its approach to the SFNF, for virtually all of the assumptions being made by this document and other FS actions are wrong under *current* as well as future, climate change.

USFS is at risk of destroying both its reputation and its ability to carry out any actions, while it is undertaking such risky and dangerous negative treatments via the SMLRP. Wake up, and join us here in Santa Fe in working together to figure out new approaches.

Valerie Gremillion, Ph.D

