

From: Valerie Gremillion, Ph.D. <[REDACTED]>
Sent: Monday, November 29, 2021 4:14 PM
To: Pence, Sitka - FS <[REDACTED]>; objections-southwestern-region-office@usda.gov;
Hutchinson, Cody -FS <[REDACTED]>; Martin, Michiko -FS <[REDACTED]>
Subject: [External Email]Santa Fe National Forest Plan Interested Person Request aka "Santa Fe Plan Revision Interested Person Request"

[External Email]

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Dear Ms Michiko and other Forest Service Personnel,

This letter is to claim my "interested person" status in the Santa Fe and other New Mexican forests per my previously submitted comments.

I've cut and pasted lines from the letter you sent me extending the deadline (I did not get the earlier one, so thank you) to make sure i do not miss anything required to establish and fulfill this status. Please contact me ASAP if you need more information at the number below.

Pursuant to The objection regulations at 36 C.F.R. § 219.57 and Forest Service policy outlined in the Land Management Planning Handbook (FSH 1909.12, Section 51.65),

I provide the following as a response to the need to repeatedly request participation as a person of interest in the actions of the Santa Fe National Forest and all national forests in New Mexico. As a scientist with both specific and general interests and concerns in the SFNF and all NNM forests, I request to be involved in any and all such proceedings. Please duplicate any such notices to me at both phone number and email address given below.

My name: Dr. M.Valerie Gremillion

Mailing address: [REDACTED]

Phone [REDACTED]

Email: [REDACTED]

I write as the objector, I submitted my comments from this email address (the one noted above); Though my comments were fairly comprehensive and I have fulfilled the legal requirements already, here are answers to your specific questions:

- a brief explanation of the requester's interest in the objection(s) and any specific concern(s), including a description of support or opposition to the objection(s):

I provided this information with my comments, please reread if necessary.

I am a complex systems scientist and ecologist well aware of climate change since the 1990s and tracking the state of our forests since then for private citizens and various scientific, nonprofit, and government concerns over the past 20 years.

My current ecological work provides ways to analyze both large-scale systems like the SFNF, and the comparable cost/benefit of specific actions taken within an ecosystem, on both the state of that system and larger-scale systems within which it is embedded.

Preliminary analysis of Forest Service approaches (as well as direct questions to Forest Service and hired personnel) have made it clear that FS forest plans, actions, continued 'thinning' and prescribed burning, choices of tree species, and actions taken as standard since the 1970s, were planned and designed for forest multi-use but with inadequate consideration to their practical future ecological impact in the face of

accelerative climate change. Specifically, standard Forest Service actions such as those outlined in the Forest Plan Revision and all related subplans, have both immediate and long-term negative network impacts on not only the ecological network structure of New Mexico ecosystems, including protected species and ecosystems, but the structure and survival of these systems as they interact with extreme climate change. Notably, my analysis shows that our named pinon-juniper and ponderosa ecosystems will not survive the next few decades under the plan the Forest Service has proposed and already partially implemented – indeed, it suggests Forest Service actions will hasten the demise of its stewarded NNM forests under this plan.

My earlier comments to the Forest Service enumerated specific objections with specific attached references in my comments, regarding the plan for ponderosa treatment which is no longer viable under climate change because FS thins intermediate age and size classes, then kill ponderosa seedlings and oldest trees with prescribed fire (now under multiple stressors so even light fire kills 100% of seedlings, and preferentially the oldest trees as well, according to published research).

But this discussion must take place within the framework of the many big picture issues not addressed sufficiently by the Forest Service plans. While ecological science has been slow to move towards complex systems analysis, it is now that we really need it. Essential to understanding the risks we take, the costs and benefits of our actions, and the implications for the future of those ecosystems and their dependent communities, real systems analysis also allows far more detailed assessment of costs and benefits in a future environment as well as the 'now'.

As far as I can tell, no or little degree of analysis of the following has occurred in these critical arenas of Forest Service action - these hidden arenas have informed my comments:

- network cascade effects of standard and proposed Forest Service actions on ecosystems, human populations, mediation of climatological homeostasis, and economies;
- convergence effects of multiple stressors within the new climatological regime, particularly on main tree species ponderosa, aspen, pinon, juniper, oak, mixed conifer. Specifically here I note that current 'restoration' approaches are likely to massively decimate these populations of trees that comprise these forests under drought and heat conditions
- what degree of translocation to higher elevations is necessary for these tree populations to maintain forest cover?
- carbon calculations which include not just the release of carbon due to prescribed burning +/- thinning but the massive decrease in carbon sequestration that occurs when adapted, growing and mature trees are removed.
- hydrogeological analyses of how to ameliorate the damage caused by existing roads, gigantic machinery, harvesting, thinning and burning on the fragile hydrogeological systems of these mountains currently stressed by drought, tiny snowpack and the halved duration of winter. These are unprecedented conditions given that they will almost certainly extend and worsen for the next 50-70 years – a period that could endanger the forest's self-propagation.
- albedo and other GIS calculations needed to determine ecosystem impact of thinning/burning hundreds-acre patches of forest on ecological integrity and actual ecosystem function such as water production and habitat maintenance for the future
- impact of planned 50,000 acre Santa Fe Forest thinning-and-burning on water capture and forest evapotranspiration, soil dryness and resulting system impacts to forest fertility and resilience.
- impact of current Forest plans on the overall sustainable ecosystem integrity, resilience, and indeed survivability of New Mexico forests given the undue and unneeded stresses it proposes under these ongoing climatological conditions
- projection of effect of planned restorations and other actions on long-term forest resilience (or existence) at the worst of our climate projections, not the best
- cost/benefit analysis as well as risk analysis of both these actions in their long-term impact on these forests and surrounding cities,

-While providing very very little in the way of any form of positive support to these ecosystems (e.g. replanting, translocation, hydrogeographical support), the Forest Service plans to provide a great deal of 'negative' support in the form of tree removal and cutting, repeated burning of the understory, etc.. While this may have been a viable approach when the very existence of the forest as an ecosystem was not endangered in the 50-year short term, now it is, and the multiplied impact of these induced stressors to the forest under serious ongoing drought conditions needs formal assessment.

In short, my own and others' research using a larger time scale of assessment which considers the longer term and wider-scale spatial impacts of planned Forest Service actions, determines that the Forest Service plans on taking irrevocable actions that may cause the swifter degeneration and loss of northern New Mexico forests, counter to the People's interest in these forests and need for their health and survival.

At the least the Forest Service should formally consider this, as it is likely the loss of these forests will be laid at their personal feet, even if it was at the behest of the President or other interests. This is truly the time for the Forest Service to rethink its entire view of our forests in the light of severe, unrelenting, and accelerating climate change, and present that changed view to our administration.

Since international efforts are for reforestation, but Bev Lam's research has already shown that the first 20 years, newly planted trees add to our carbon problem (they aren't sinks they are sources), and new calculations are showing that established trees are even more precious than we believed.

We DO need to assess the actions of the Forest Service in the light of the largest climate lens to determine what is important in this new era, in which extractive industries may prove costly in ways which are irremediable and have national and international import rather than merely community and local. These actions also have tremendous economic consequences to local and state community which have never been addressed directly – impact on real estate prices, insurance prices, tourism, population size, and the gigantic political football, Water. All of these will be directly related to the health of our forest, the health of our air, and the ability of our giant forests to anchor the old meteorological patterns as much as possible.

You are the guardians and stewards of this forest. Please accept that there are newly emerging sciences and viewpoints that argue the importance of our forests is far more than we ever knew, and suggests very different approaches and solutions to the problems and opportunities of all New Mexican forests. I'm very happy to discuss all this with you.

-identification of substantive formal comment provided by the requester during the planning process demonstrating the requester's participation in the planning process:

Such comment was provided by me via this email address to the Forest Service in time to be included formally and legally in this process. It's in your records, that's how and why you wrote to me.

Please get back to me as soon as possible regarding timecourse of potential meetings.
Thank you for your attention.

Sincerely,
Valerie Gremillion

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